

TB and Latent TB Infection (LTBI) Overview

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COUNTY OF SAN DIEGO
HEALTH AND HUMAN SERVICES AGENCY



LIVE WELL
SAN DIEGO



World TB Day – March 24th



- Commemorates the date in 1882 when Dr. Robert Koch discovered the TB bacteria. This pivotal event led to diagnosing and finding cures for TB.
- Raises awareness that TB is still a serious public health threat.



GLOBAL IMPACT OF TB

Estimated TB incidence rates, 2023



- ▶ TB is the leading cause of death from an infectious disease
- ▶ In 2023, approximately 8.2 million people newly diagnosed with TB - **the highest number recorded since WHO began global TB monitoring in 1995**

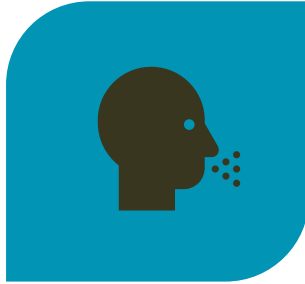
World Health Organization, Global Tuberculosis Report 2024

What is Tuberculosis (TB)?

- **TB is a communicable disease** caused by a bacteria called *Mycobacterium tuberculosis*.
- **How does a person get TB?**
 1. **TB spreads through the air** when a person sick from active TB coughs, speaks or sings.
 2. **People eat unpasteurized dairy (e.g. queso fresco)** from cows infected with *M. bovis*.
- **TB bacteria usually attack the lungs** but can attack any part of the body such as the kidney, spine, and brain.
- **Those who have been infected, but are not sick, have **latent tuberculosis infection (LTBI)**.**



Symptoms of Active TB



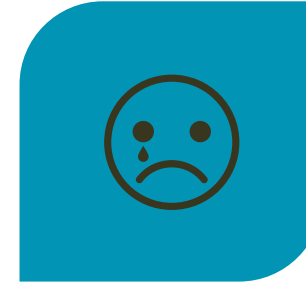
Cough



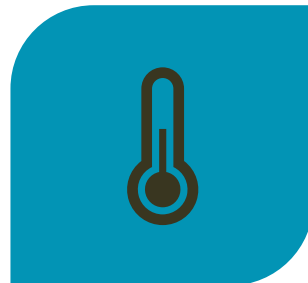
Coughing Up
Sputum Or
Blood



Weight Loss



Feeling Weak
Or Sick



Fever



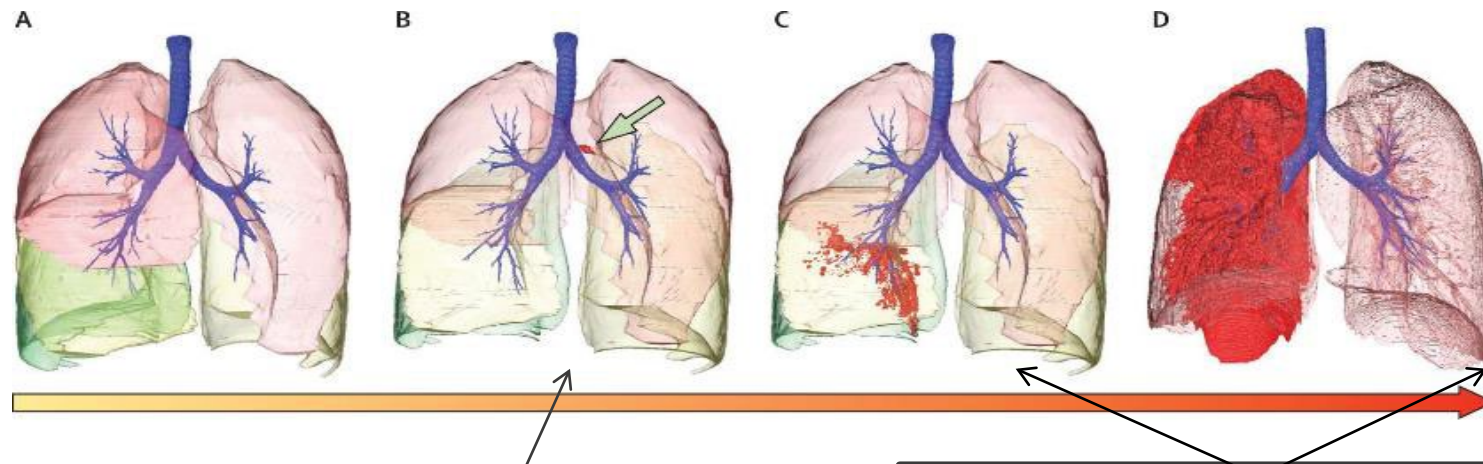
Night Sweats



Chest Pains

LTBI TREATMENT GOAL: **PREVENT** PROGRESSION TO ACTIVE TB DISEASE

Spectrum of TB disease



Latent TB Infection

- **No symptoms**
- Positive TB test
- Chest X-Ray normal
- Not infectious

Active TB Disease

- **Symptoms such as cough, fever**
- Positive TB Test
- Chest X-Ray is usually abnormal
- Respiratory specimens usually culture positive.

Latent TB Infection vs Active TB Disease

A person with latent TB infection:

HAS NO SYMPTOMS



DOES NOT FEEL SICK



CANNOT SPREAD GERMS TO OTHERS



TREATMENT CAN STOP TB DISEASE FROM OCCURRING



A person with TB disease:

HAS SYMPTOMS



FEELS SICK



CAN SPREAD GERMS TO OTHERS



TREATMENT CAN STOP TB DISEASE



85% of active TB cases begin as LTBI and can be prevented with LTBI treatment

- California Department of Public Health

What Does a Positive TB Test Tell You?



TB Skin Test



TB Blood Test



OR

If the **final** skin or blood TB test is negative, usually no further testing is required.

Positive Test



If your TB test is **positive**, get a **Chest X-ray** to make sure you do **NOT** have active TB.

Chest X-ray



LTBI Treatment



If the Chest X-ray is normal, you have LTBI and should **begin LTBI treatment**.



What is TB?

TB RISK ASSESSMENT SCREENING



TB risk assessment includes:

- Contact with TB case anytime in your life
- Born outside the U.S. (from a country with elevated TB rate)
- Binational
- Eats unpasteurized dairy products made outside the U.S (e.g., queso fresco from Mexico)
- Homelessness*
- Incarceration*
- Drug abuse*
- Immunosuppression



*Or children who are exposed to individuals in these circumstances

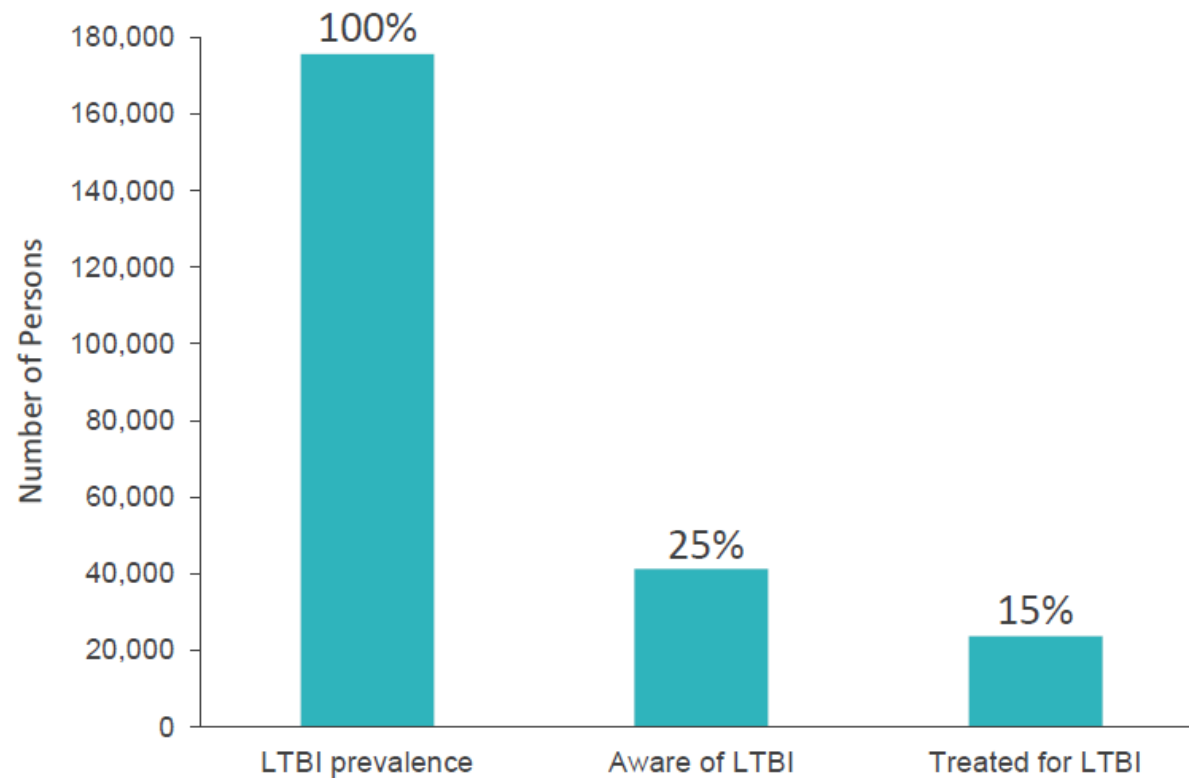


TB AND LTBI IN SAN DIEGO COUNTY

Trivia Question

How many people in San Diego are estimated to be living with LTBI?

LTBI TREATMENT NEEDED TO PREVENT ACTIVE TB

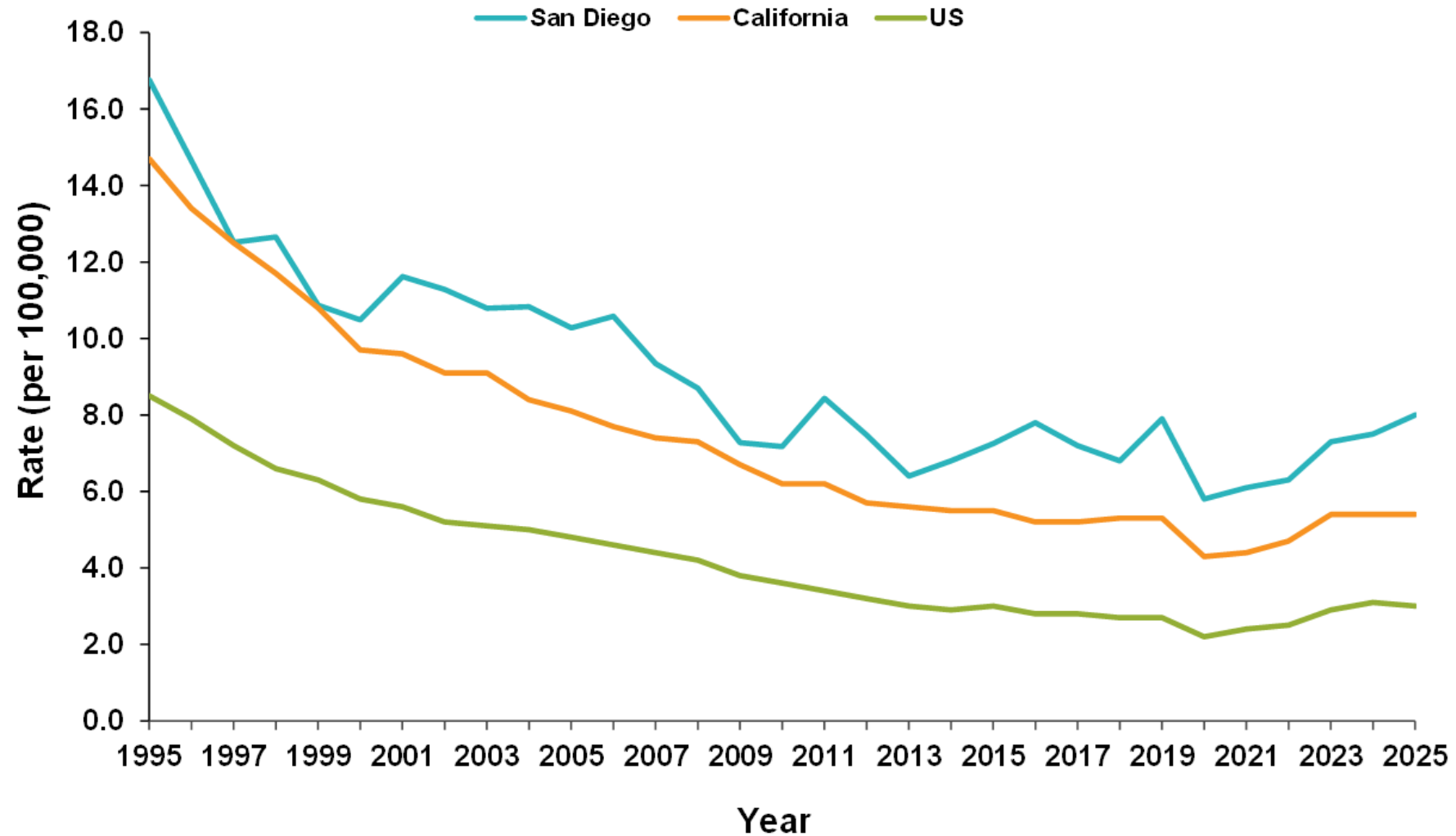


Approximately
175,000 San Diegans
have LTBI, which can
progress to active TB
without treatment.

Estimated using methodology from the California TB Control Branch [Report on Tuberculosis in California, 2020](#) and associated Data Tables, applying national level data from the National Health and Nutrition Examination Survey, 2011-2012, to the San Diego County population.

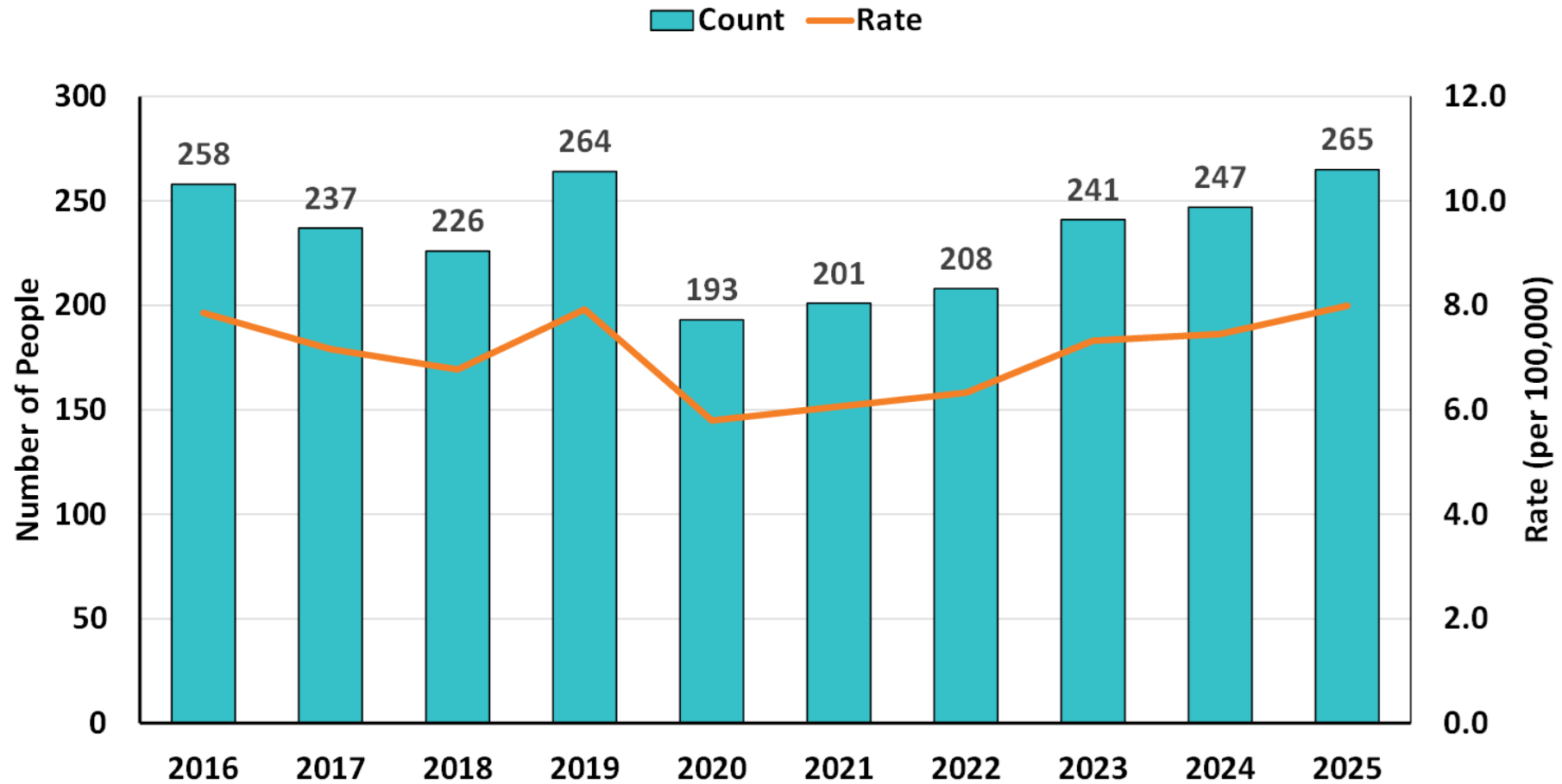


NATIONAL, STATE, AND LOCAL TB INCIDENCE RATES, 1995 – 2025



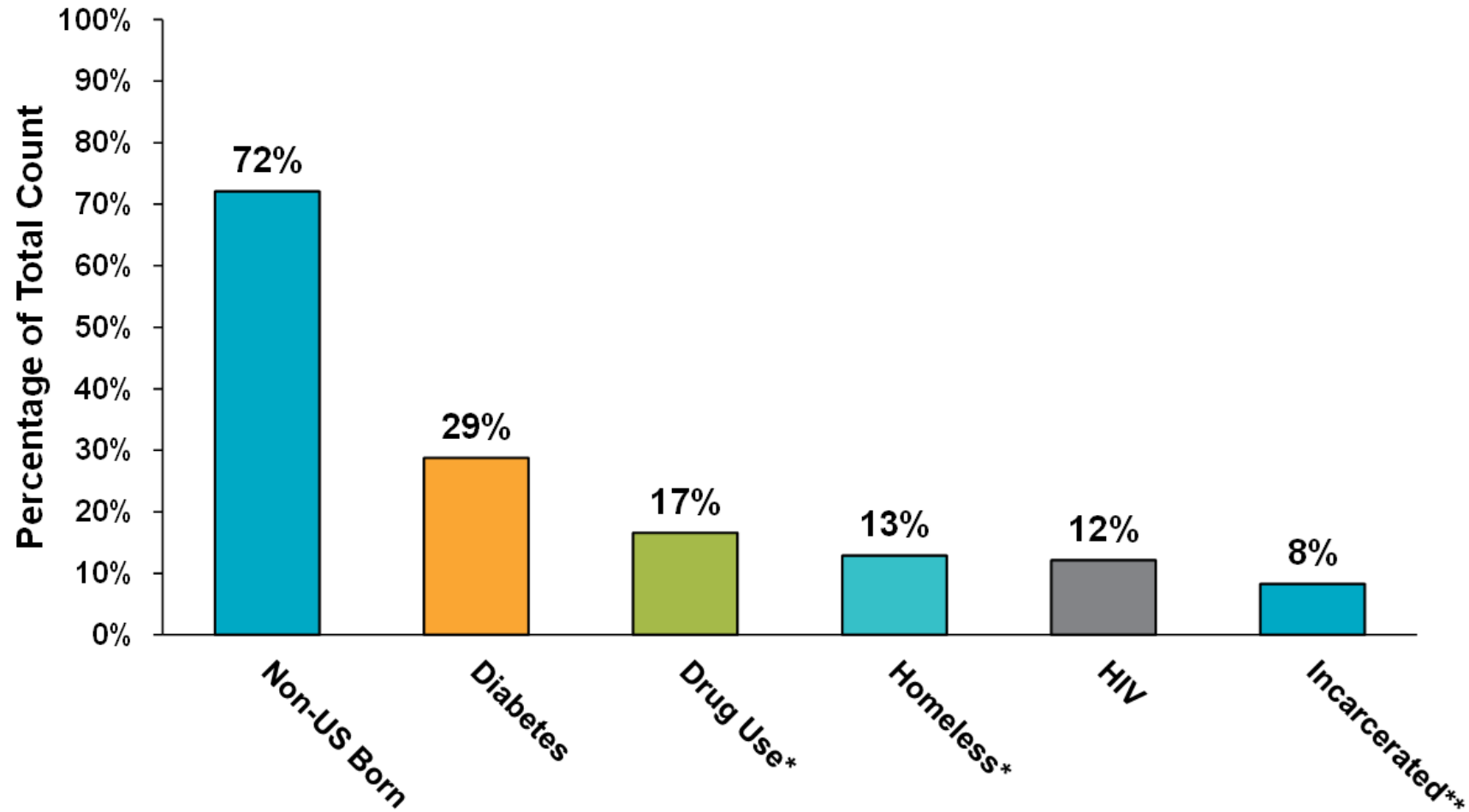
Source: County of San Diego, Mar 2026

TB CASE COUNT AND RATES SAN DIEGO COUNTY, 2016 – 2025



Source: County of San Diego, Mar 2026

RISK FACTORS AMONG TB CASES SAN DIEGO COUNTY, 2025

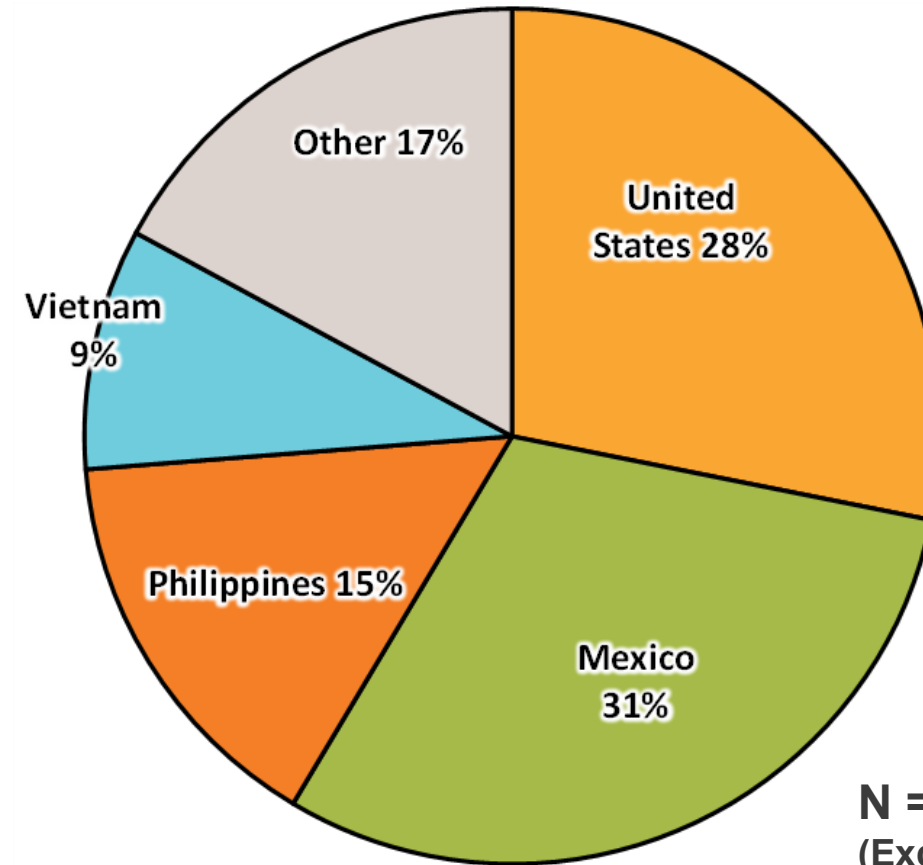


* In year prior to TB diagnosis

** At TB diagnosis

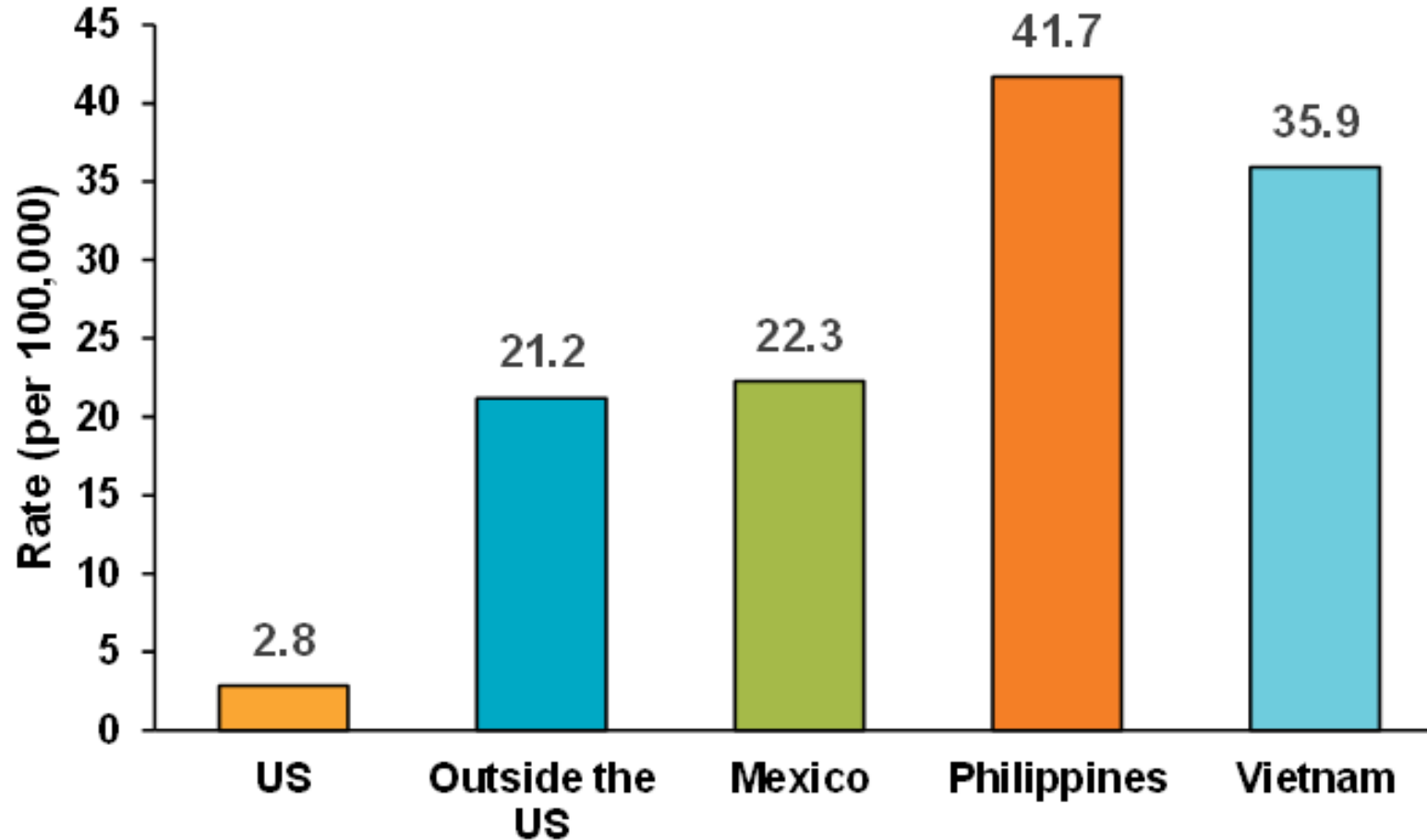
Source: County of San Diego, Mar 2026

TB CASES BY BIRTH COUNTRY SAN DIEGO COUNTY, 2025



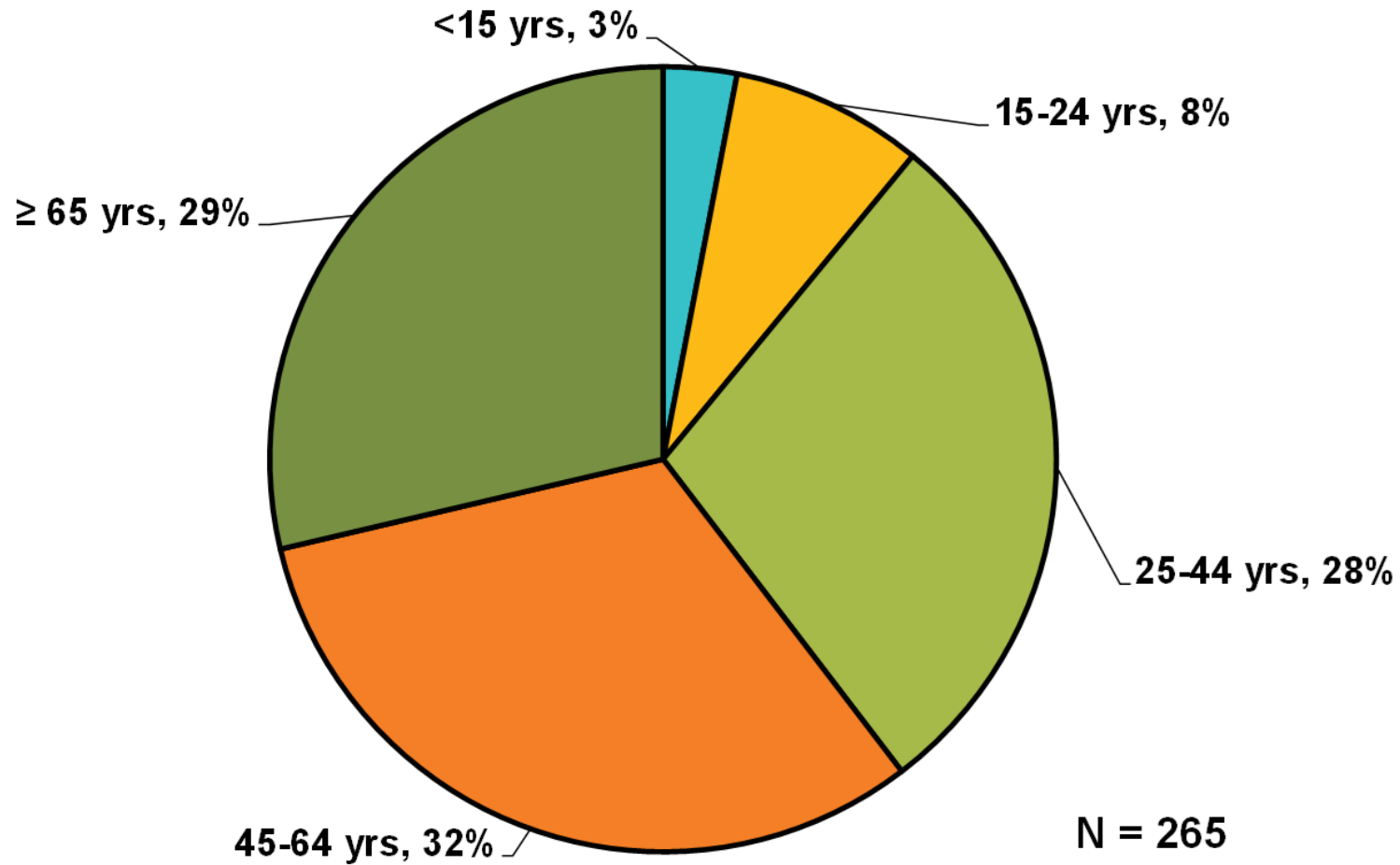
N = 263
(Excluded 2: unknown birth country)

TB INCIDENCE RATE BY BIRTH COUNTRY SAN DIEGO COUNTY, 2021 – 2025



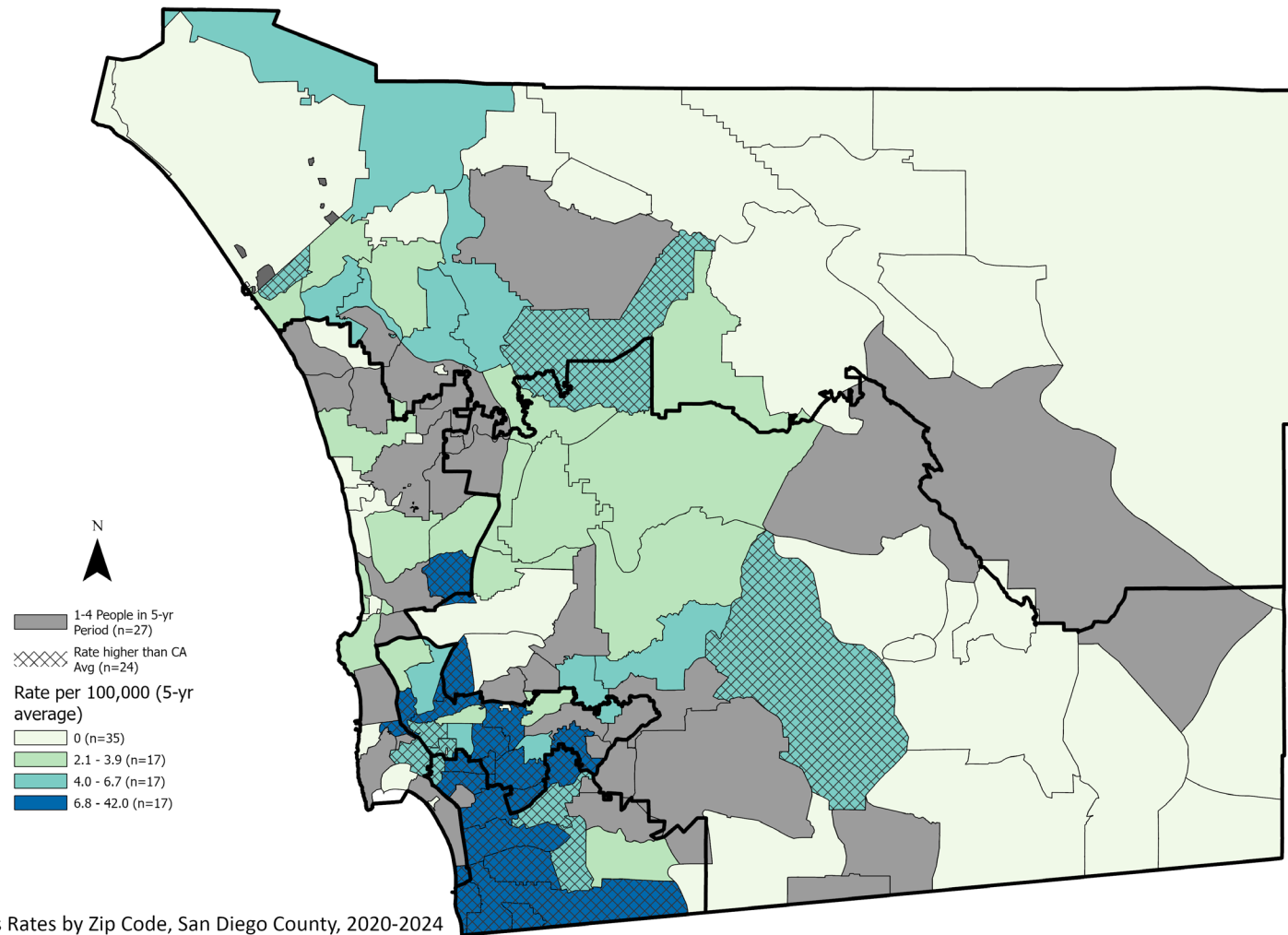
Rates calculated with 2021-2024 American Community Survey Population Data

TB CASES BY AGE GROUP SAN DIEGO COUNTY, 2025



Source: County of San Diego, Mar 2026

TB INCIDENCE RATES BY ZIP CODE SAN DIEGO COUNTY, 2020 – 2024



Tuberculosis Rates by Zip Code, San Diego County, 2020-2024

Source: County of San Diego, Health and Human Services Agency, Tuberculosis Control, RVCT Database

Map Date: April 10, 2026

Source: County of San Diego, December 2025

AB 2132 – New CA Law Took Effect 1/1/2025

Requiring TB Screening and Follow-up Care



Requires an adult patient receiving primary care services to be **offered a TB screening test if risk factors are identified.**



If the patient's health insurance covers it, the patient should be followed by **provision or referral for appropriate follow-up care** (including rule out of active TB and LTBI treatment).



The bill was sponsored by the Coalition for a TB Free California.



LTBI: DIAGNOSIS AND TREATMENT

POSITIVE TB TEST: **RULE OUT ACTIVE TB BEFORE LTBI TREATMENT**



1. Symptom screen

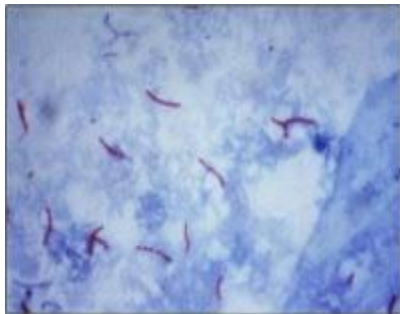
- Cough
- Unexplained Weight Loss
- Fevers
- Night Sweats



2. Chest x-ray

- PA for all
- lateral for <5yo

- Cavitory lesion
- Infiltrate
- Nodule
- Effusion
- Hilar Lymphadenopathy



3. Sputum collection

- If abnormalities on symptom screen and/or chest x-ray

- AFB smear & culture
- MTB PCR (Xprt) or other NAAT (at least one sample)



WHAT ABOUT THE BCG VACCINE?

“But I’ve had the TB/BCG vaccine.”

- ▶ **Address misconceptions about “TB vaccine” (BCG):**

BCG vaccine does not provide long-term protection against TB. Patients can still become infected with, and sick from, TB even if they received the BCG vaccine.

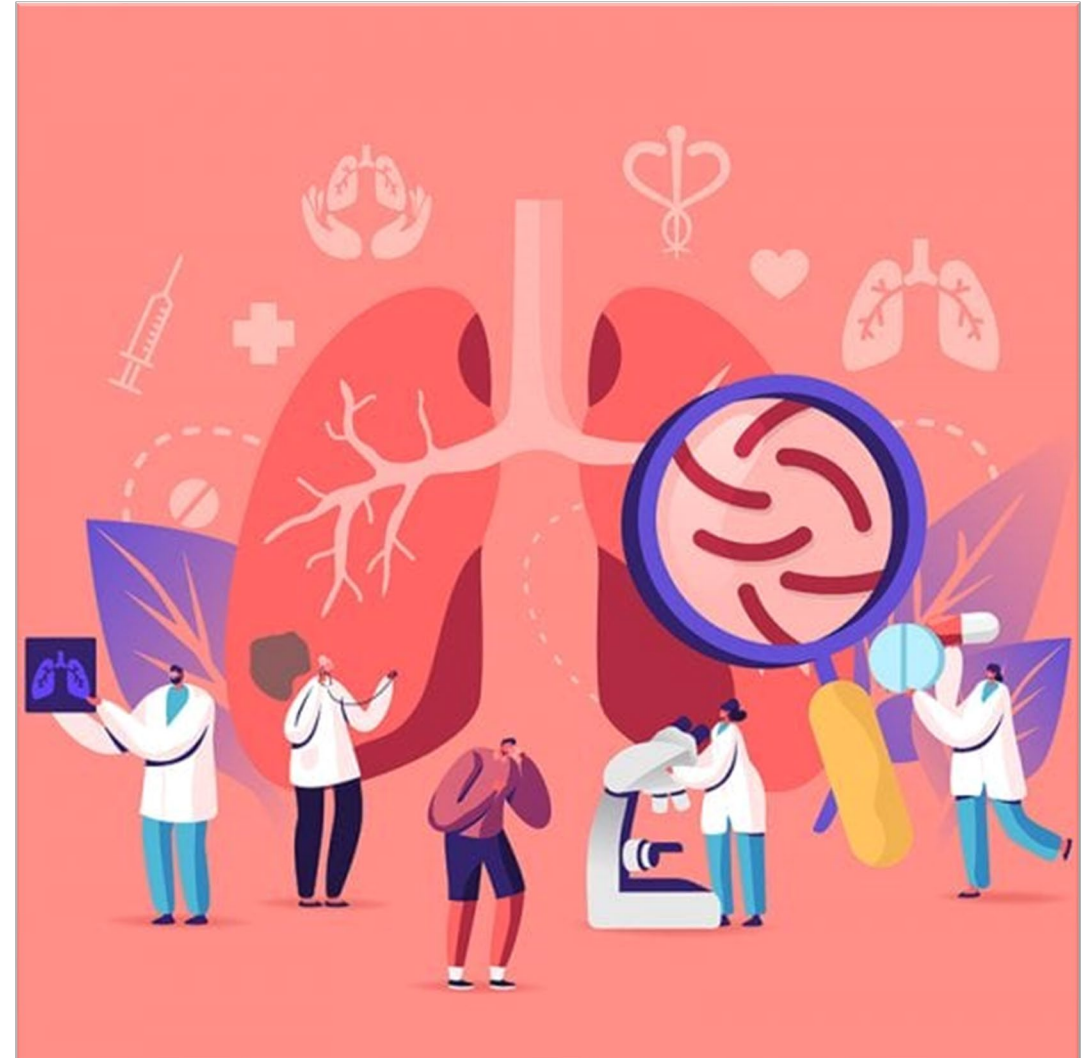
- ▶ **LTBI treatment is important!**

A decision to test is a decision to treat.

San Diego County TB Elimination Initiative (TBEI)



A Board-approved, **public-private partnership** that builds a coordinated TB elimination framework in San Diego County.



TBEI Community of Practice

Accomplishments

- ✓ LTBI improvement initiatives at each site
- ✓ Expanded capacity to measure LTBI data – baseline and ongoing reporting
- ✓ Provider education implemented across sites
- ✓ LTBI EHR enhancements and workflows
- ✓ LTBI practice changes implemented across sites
- ✓ Member presentations sharing strategies to improve LTBI diagnosis, treatment, and data at each quarterly meeting
- ✓ Partnerships with CDPH, TB Free CA, and CDC



- American Pacific Health Foundation
- California Department of Public Health, TB Control
- County of San Diego TB Clinic, Pharmacy, and Behavioral Health Services
- CDC
- Children's Primary Care Medical Group
- Family Health Centers of San Diego
- Father Joe's Villages
- Indian Health Council
- Kaiser Permanente
- La Maestra
- Neighborhood Healthcare
- Opsam Health
- San Diego Family Care
- San Ysidro Health
- San Diego American Indian Health Center
- Scripps Health
- Sharp Community Medical Group
- Southern Indian Health Center
- TrueCare
- UCSD Health
- UCSD School of Public Health and School of Medicine²⁷
- Vista Community Clinic

LTBI STANDARD OF CARE FOR PATIENTS



Key Points

Screen

Screen patients for TB risk using San Diego County TB Risk Assessment

Test

Test using an IGRA

Treat

Treat with short-course medication regimen (3-4 months).



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www.sandiegocounty.gov/TB

Thank you!



The Public Health Services department, County of San Diego Health and Human Services Agency, has maintained national public health accreditation, since May 17, 2016, and was re-accredited by the Public Health Accreditation Board on August 21, 2023.