

Merced County Department of Public Health (MCDPH)

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Objectives

- Lessons Learned from COVID-19
- Launch of the Latent Tuberculosis (LTBI) Program in Merced County
- LTBI Program Structure
- Positive Interferon-Gamma Release Assays (IGRA) Demographics
- Economic Burden of Tuberculosis (TB)



Lessons Learned from COVID-19

The Importance of Surveillance

- COVID-19 contact tracing gave us the foundation and structure necessary to perform Tuberculosis (TB) surveillance
- Established a clear, formalized process for surveillance

Public Health Burden

- Current TB allocations do not support the necessary manpower to execute Latent Tuberculosis (LTBI) surveillance
- Temporary funding from other infectious disease grants provides additional staffing and resources for LTBI surveillance
- Program needs 3 FTEs for the data to be up to date
- Social stigma of TB



Launch of LTBI Program

LTBI Program Started – May 2022

- TB incidence & challenges in Merced County
 - Increased prevalence of positive Interferon-Gamma Release Assays (IGRA)
 - Lack of continuity of care for positive IGRAs in the community

Importance of LTBI Diagnosis and Treatment in Merced County

- Method to prevent active TB in the future
- Pregnancy testing for TB



Program Structure

LTBI Program Structure

- Surveillance identifies positive IGRAs and assigns to TB team
- TB team partners with Primary Care Provider (PCP) to educate, encourage, and create a treatment plan
- Surveillance & TB team update the patient data

Potential outcomes from IGRA positive outreach projects

- Increase provider knowledge
- Increase willingness to treat
- Increase prevention of future active TB cases



DATA BREAKDOWN

Joshua Sanders, MPH, Epidemiologist



Positive IGRAs Demographics

Total Positive IGRAs (n=315)

Age

- Average: 46
- Range: 1-98

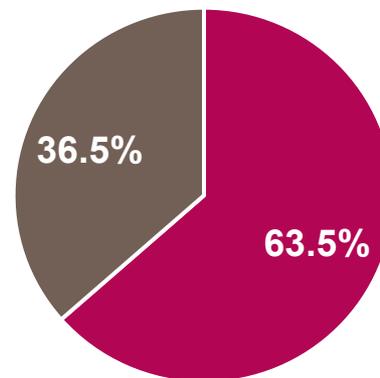
Gender

- 63.5% Female
- 17.6% Pregnant

Foreign born (n=117)

- 73.5%

Gender



■ Female ■ Male

Merced County Data from January 2023 – July 2023



Demographics (Continued)

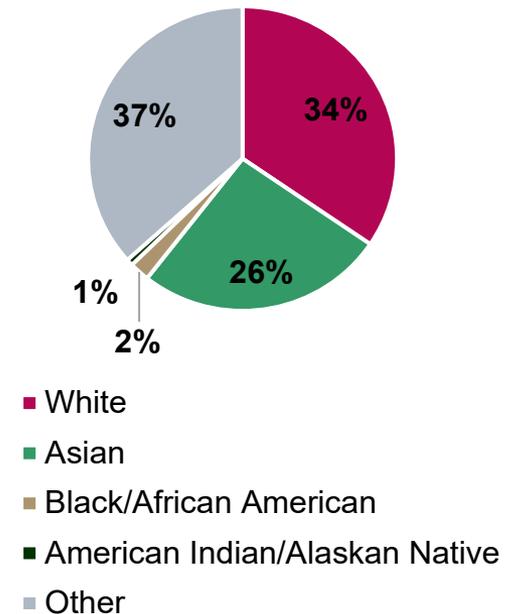
Ethnicity

- 69.2% Hispanic/Latino (n=172)

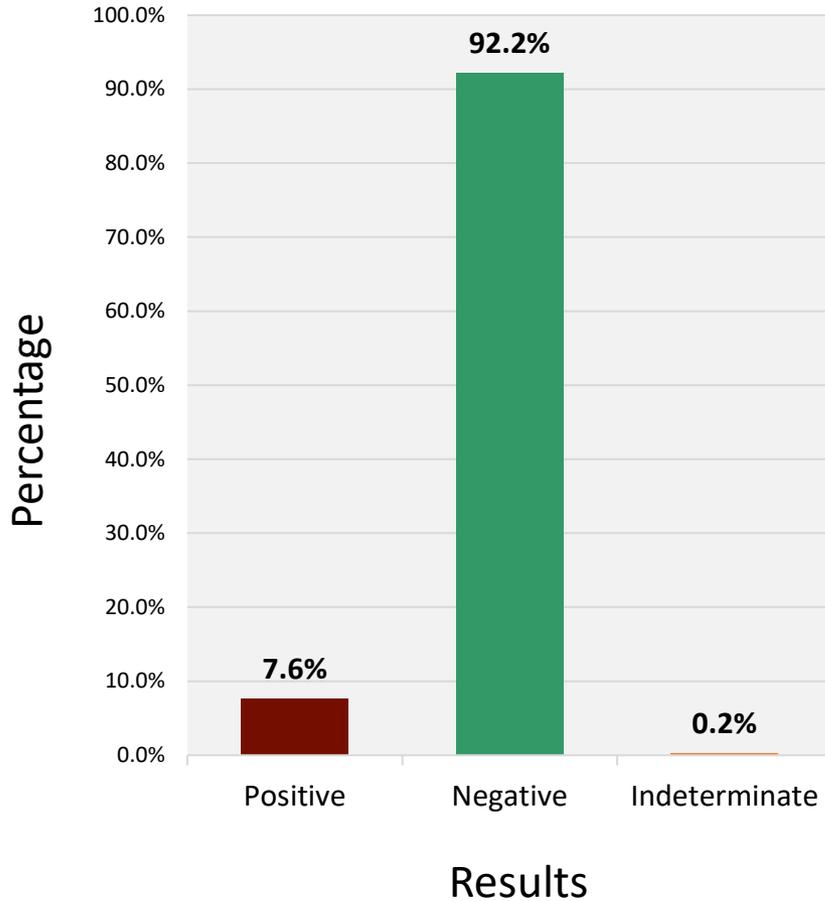
Race

- 34.5% White
- 26.1% Asian
- 2.1% Black/African American
- 0.7% American Indian/Alaskan Native
- 36.6% Other

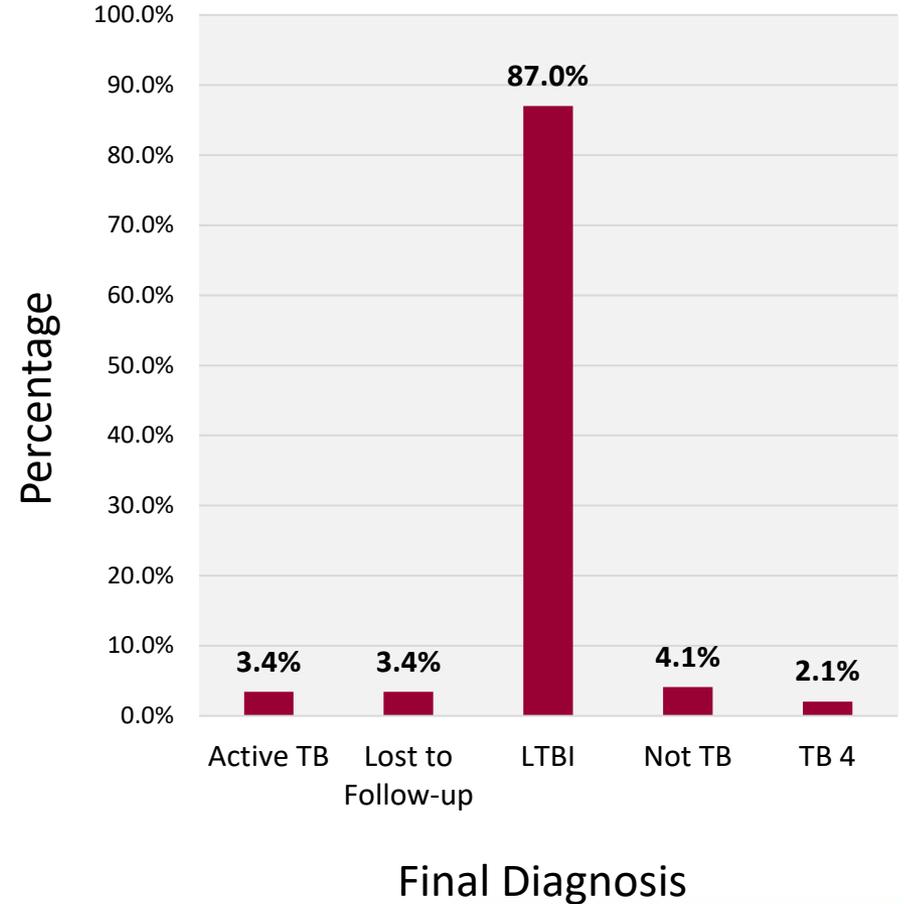
Race



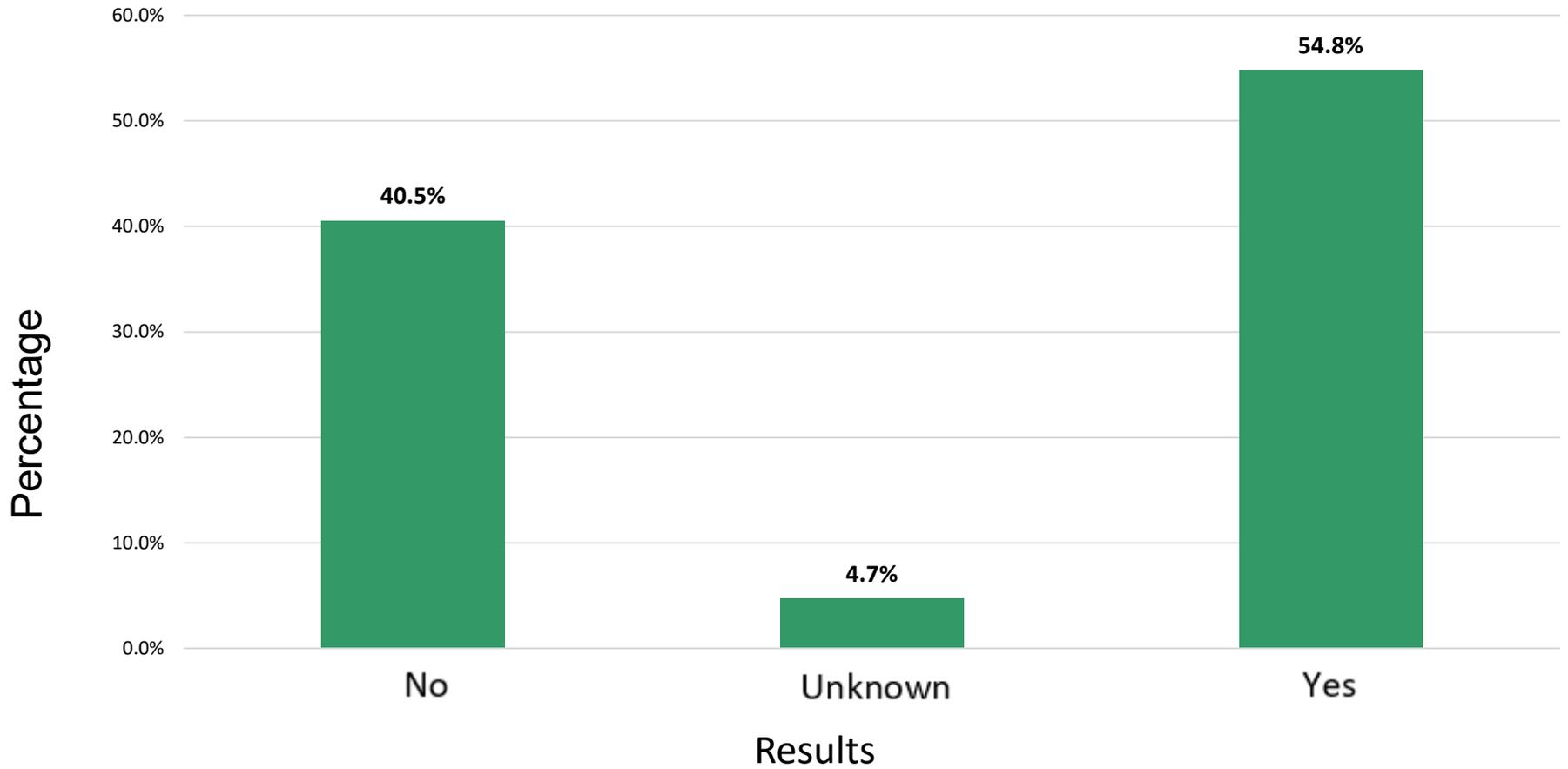
Total IGRAs (n=4,141)



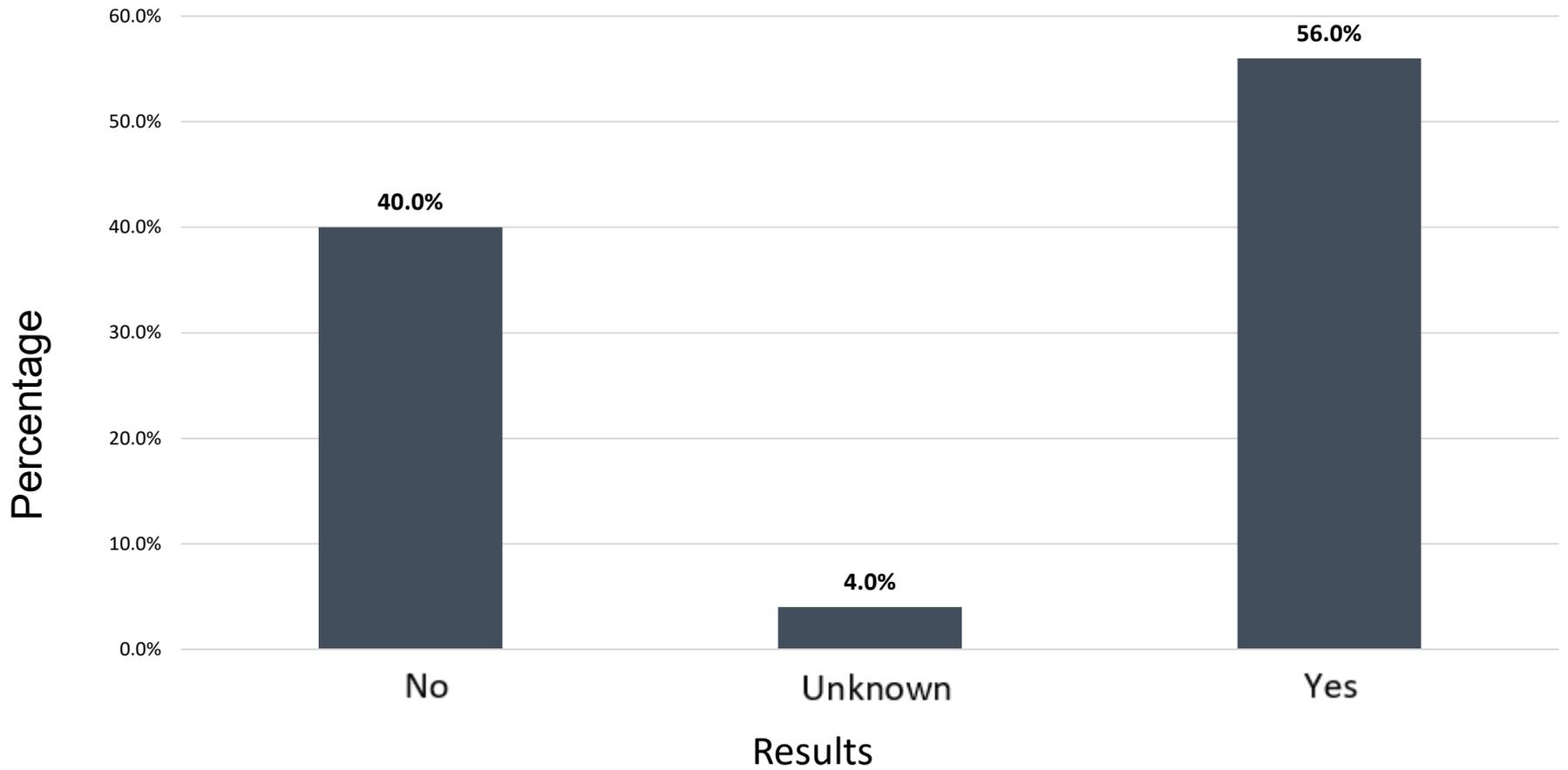
Final Diagnosis of IGRA Positive



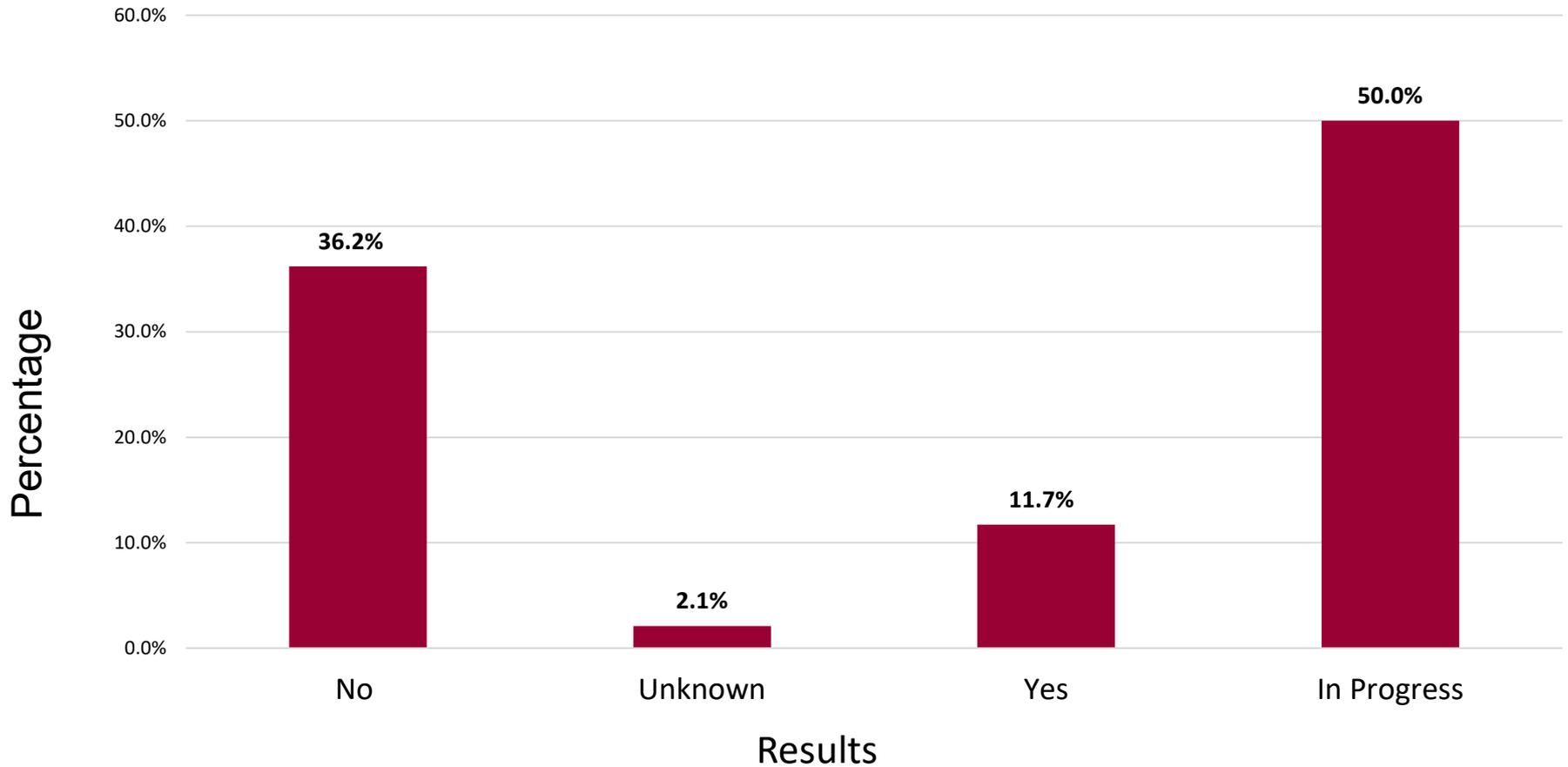
LTBI Percentage of Treatment Offered



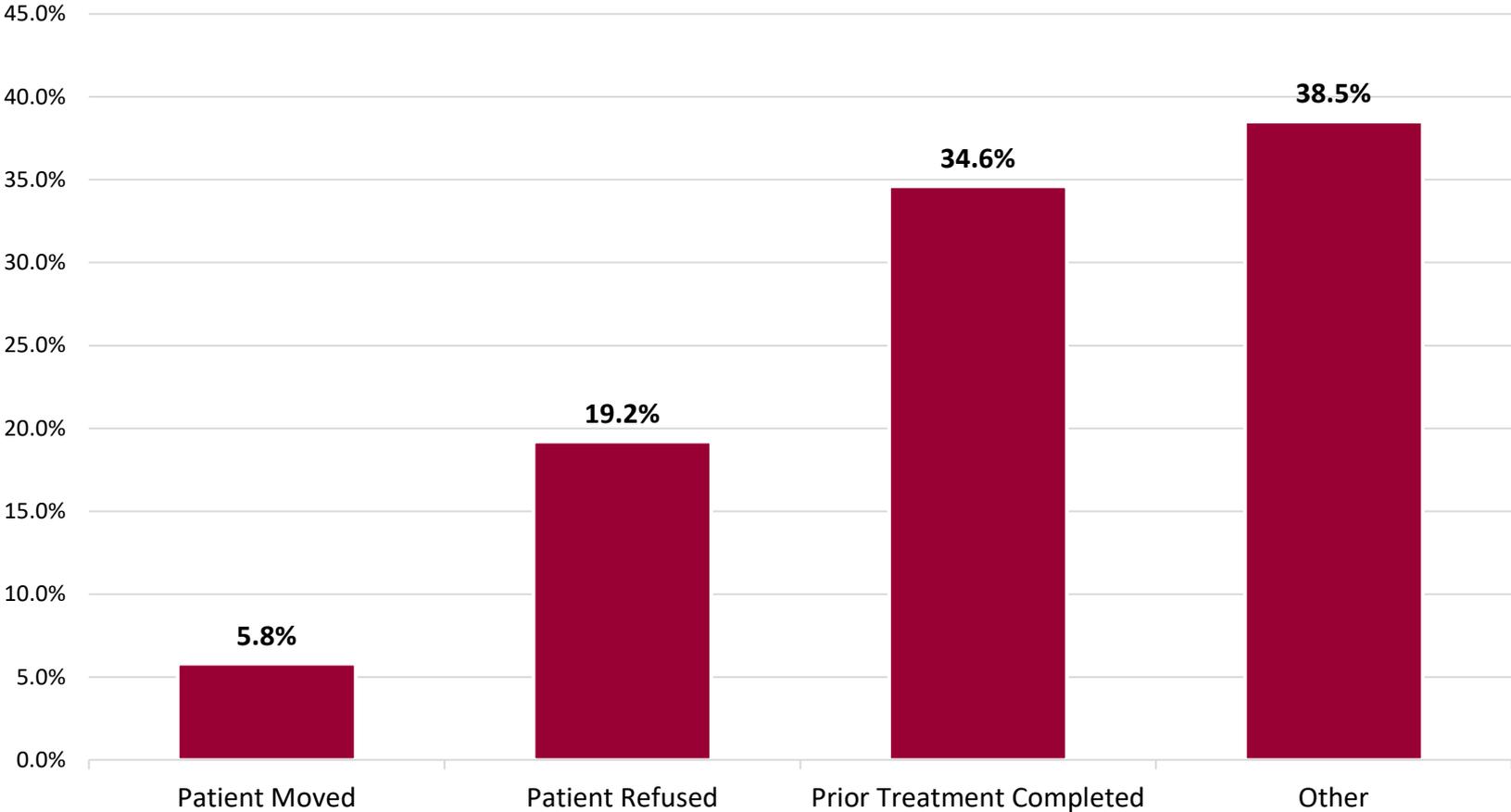
LTBI Percentage of Treatment Started



LTBI Percentage of Treatment Completed



Reason Treatment Not Started



Burden of LTBI

- Merced County has a population of 286,461
- Due to population size, estimates show Merced County should have a burden of 17,527* LTBI cases—representing 6% of the county's population
 - However, due to lack of testing, Merced County is only seeing an average of 45 cases per month based on positive IGRA reporting
- Over the lifetime of someone diagnosed with LTBI, they have a 5-10% chance of progressing to an active TB case**
- This indicates we can potentially see 876 to 1,752 active TB cases from our estimated LTBI cases alone
 - For reference, Merced County had 11 active cases in 2022

* [TB Disease Data and Publications](#)

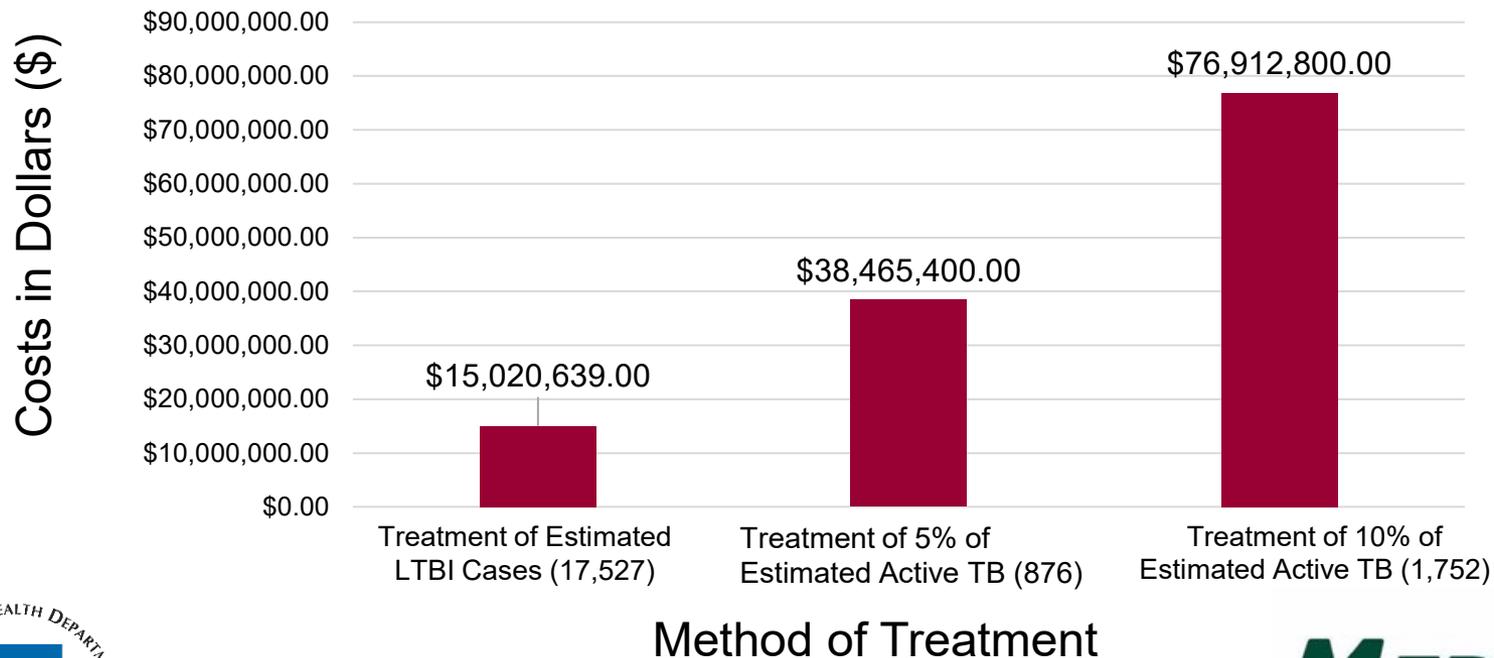
** [Latent TB Infection \(CDC\)](#)



Cost of TB

- The cost to treat LTBI for one person is low (\$857) compared with the cost of diagnosing and treating one person with active TB disease (\$43,900).*

Tuberculosis Estimated Costs



[* Costs and Consequences of Tuberculosis in California | TB Control Branch | CDPH](#)

