

# Epidemiology of TB Among Farmworkers in California

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- At least 310,000 temporary migrant workers in CA, most in U.S.<sup>1</sup>



- Hispanic workers make up 96% of all farmworkers in California, with 65% of U.S.-born workers identifying as Hispanic<sup>2</sup>
- About 9% of California farmworkers identify as indigenous<sup>2</sup>
- About 47% of farmworkers in CA are uninsured<sup>3</sup>
- Farmworkers are approximately six times more likely to develop TB than the general population of employed adults<sup>4</sup>

<sup>1</sup>Economic Policy Institute, <https://www.epi.org/>

<sup>2</sup>La Cooperativa Campesina de California, <https://lacooperativa.org/>

<sup>3</sup>Expanding Health Coverage for California Farmworkers, July 2023; Insure the Uninsured Project

<sup>4</sup>CDC. Prevention and Control of Tuberculosis in Migrant Farm Workers Recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1992, 41

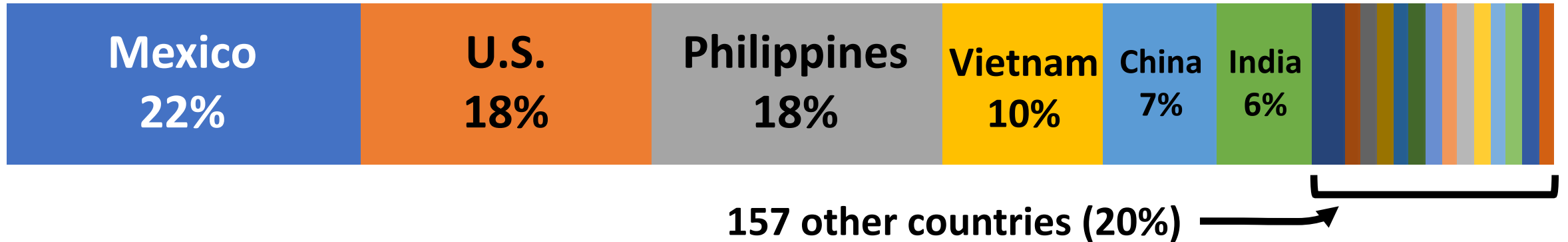
# Migrant or Seasonal Worker

Person who is required to be absent from a permanent place of residence for the purpose of seeking employment, or who may vary their employment for the purpose of remaining employed while maintaining a permanent place of residence.

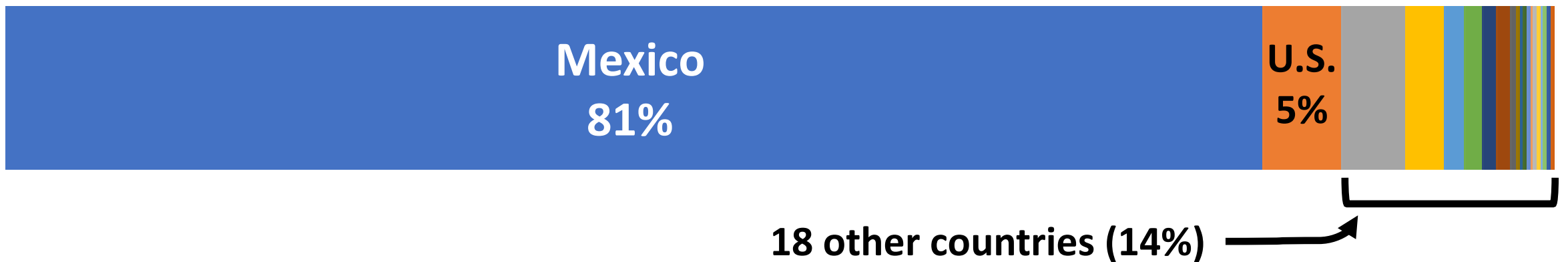


# Country of birth of TB patients, California 2013-2022

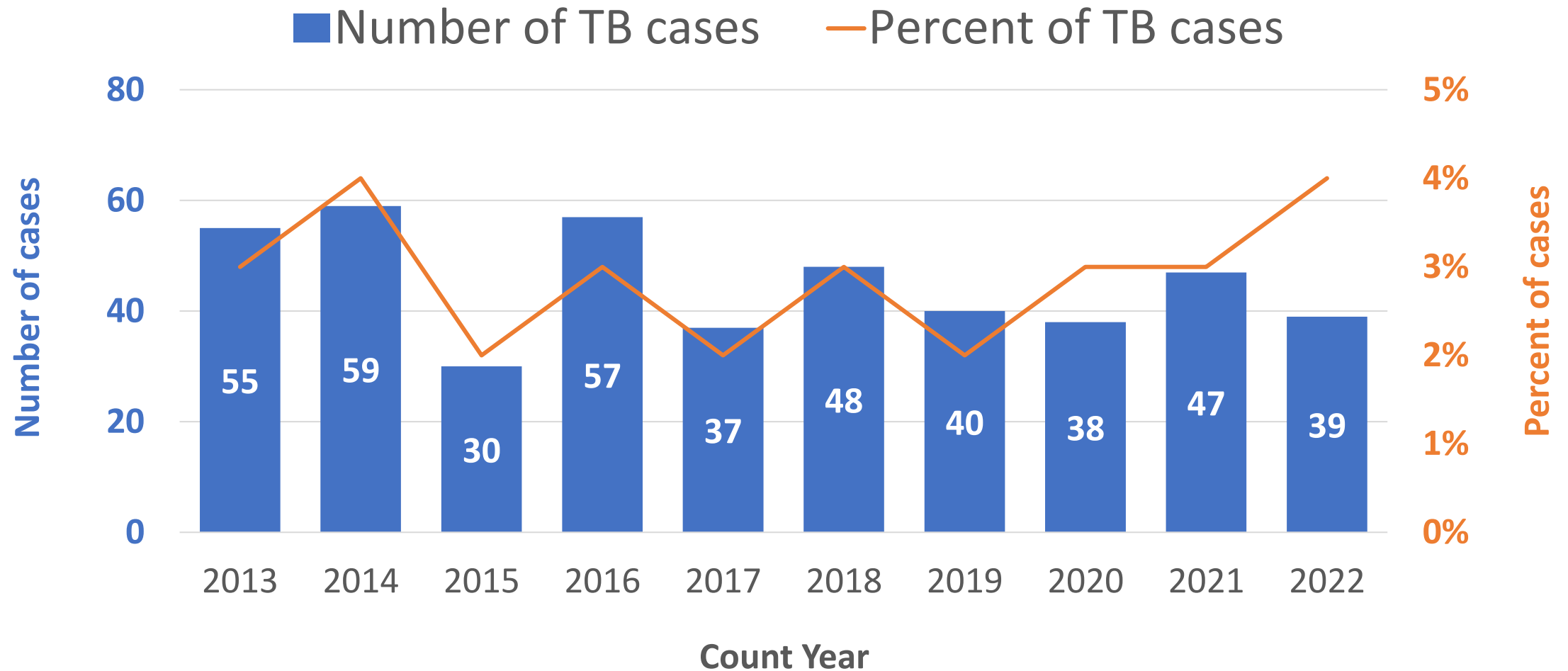
## All TB patients (20,393 cases from 163 countries)



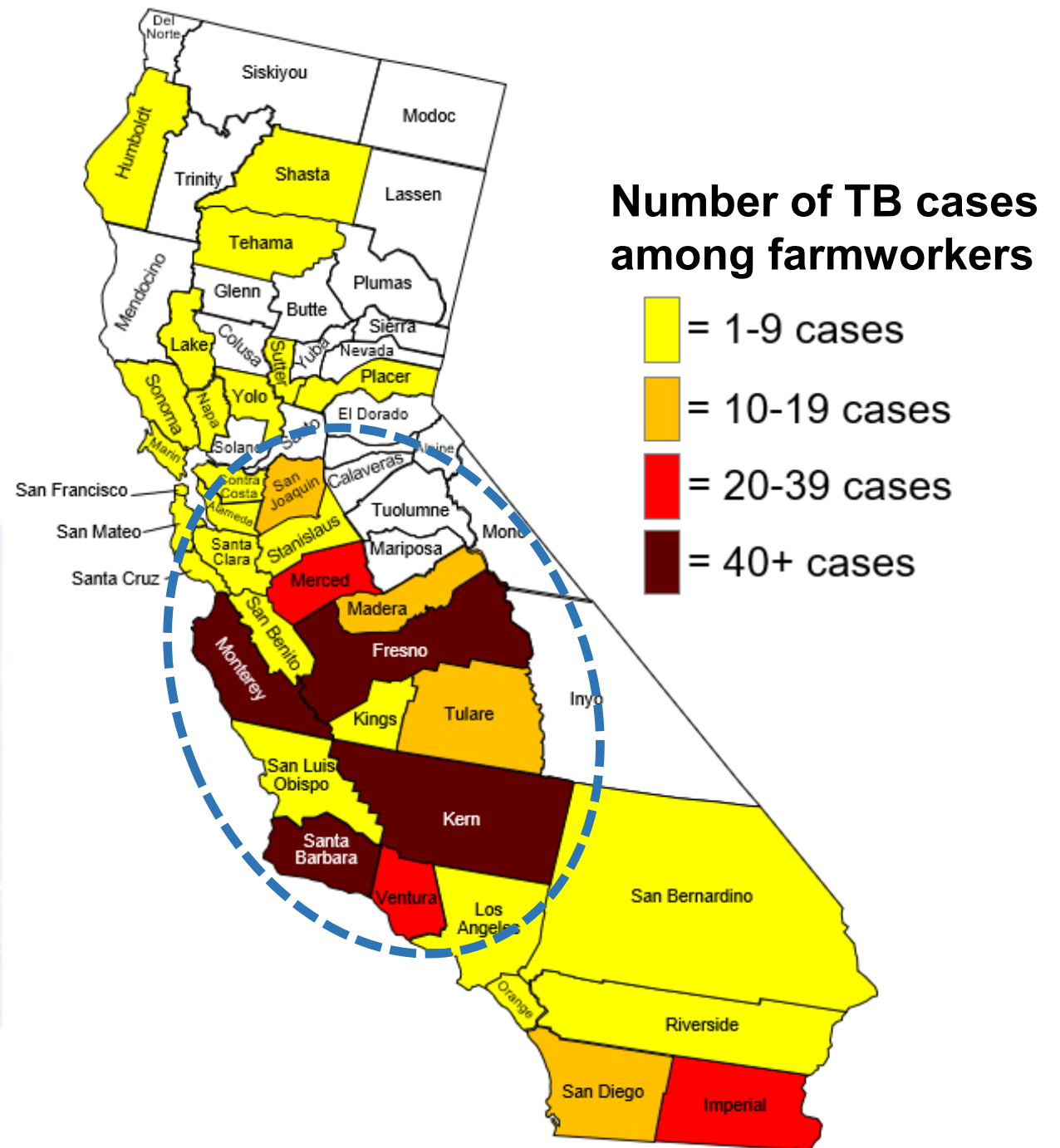
## TB patients reported as farmworkers (450 cases from 20 countries)



# TB Among Farmworkers in California, 2013-2022



# California counties reporting farmworkers diagnosed with TB, 2013-2022



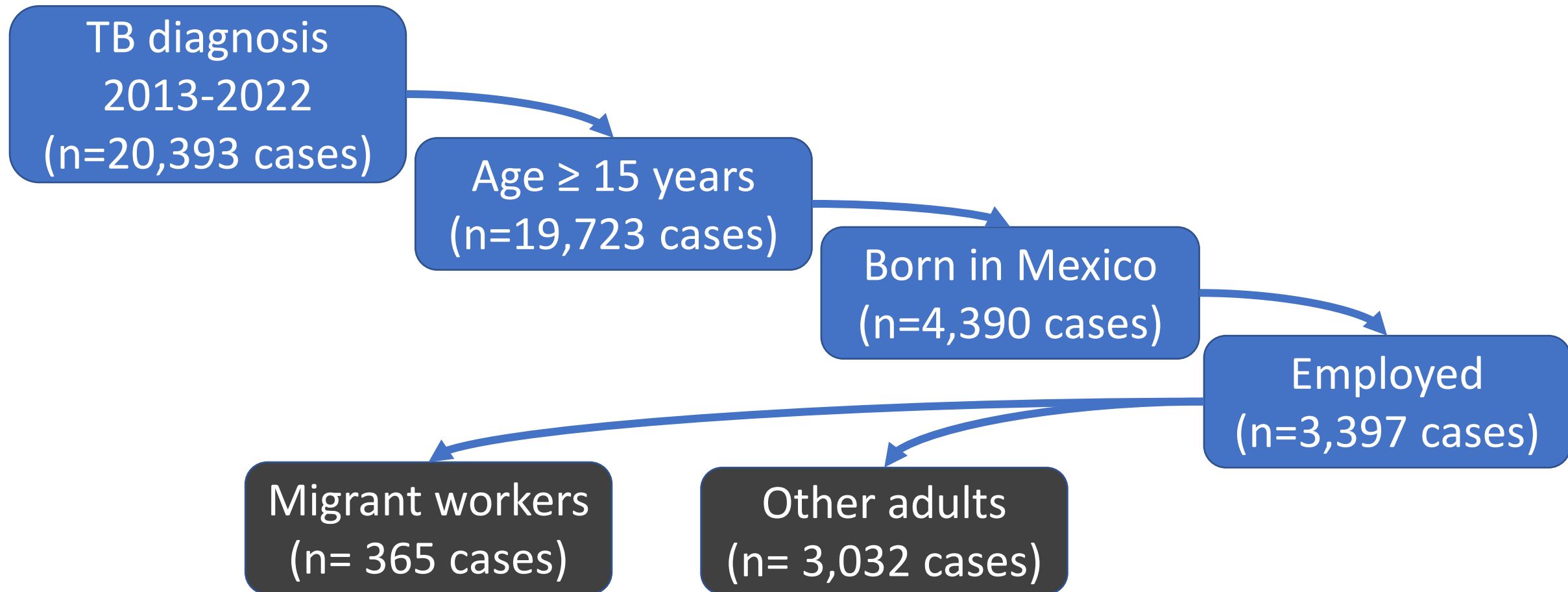


Comparing Mexico-born farmworkers to other Mexico-born TB cases in California

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# Inclusion criteria for TB cases counted 2013-2022





# Characteristics of Mexico-born TB patients in California, 2013-2022

Characteristic	Farmworkers (n=365)	Other Employed Adults (n=3032)
Male	83%	65%
Median age	40 years	57 years
Homeless	6%	4%
Median years in the U.S.	13 years	25 years
Excess alcohol use	22%	10%
Contact with infectious TB patient	14%	6%

# Characteristics of Mexico-born TB patients in California, 2013-2022

Characteristic	Farmworkers (n=365)	Other Employed Adults (n=3032)
More infectious TB disease <sup>1</sup>	68%	50%
Received health department TB care	74%	60%
Completed treatment <sup>2</sup>	92%	86%
Moved during treatment <sup>2</sup>	16%	8%
Lost to follow-up during therapy <sup>2</sup>	1.4%	1.4%

<sup>1</sup>Patients with positive sputum smear and/or cavitory CXR

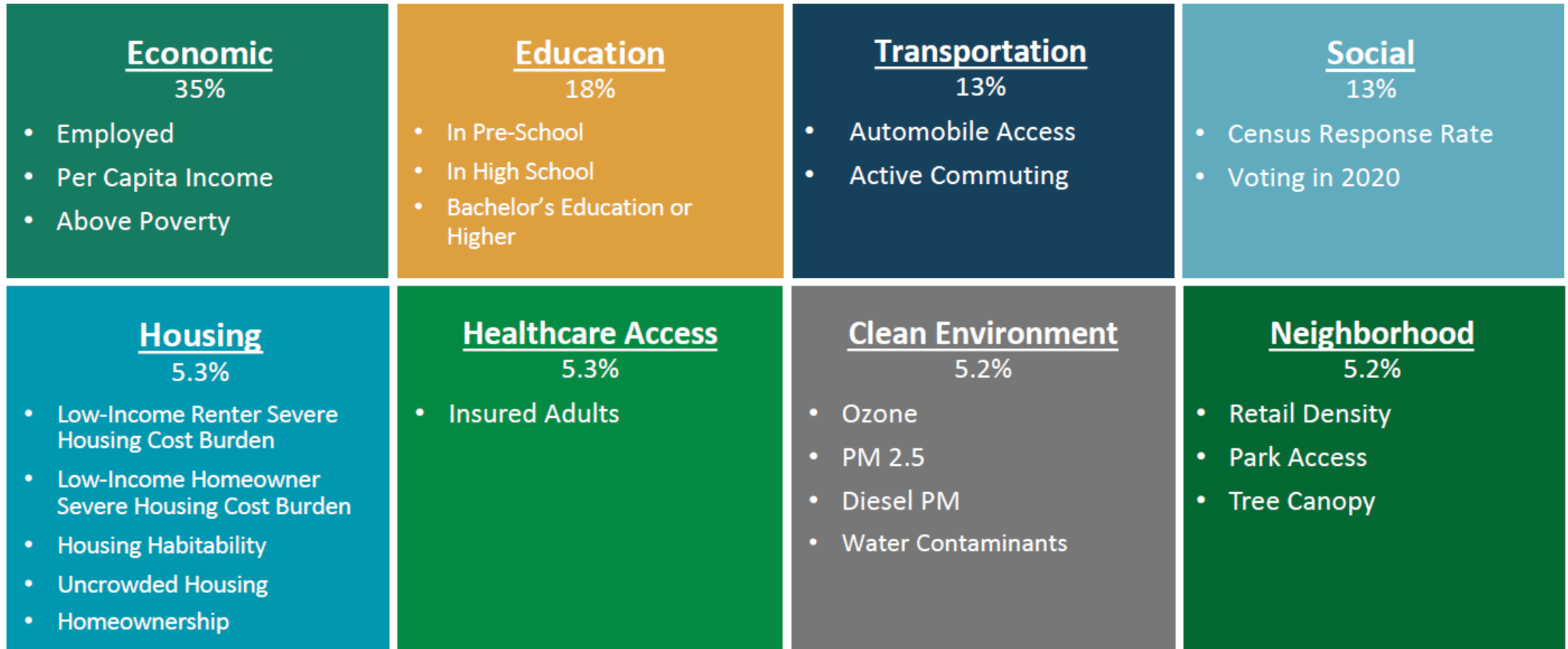
<sup>2</sup>Patients counted as TB cases, 2013-2020

Are there differences in  
socioeconomic status of  
farmworkers and other employed  
Mexico-born adults?

Healthy Places Index,

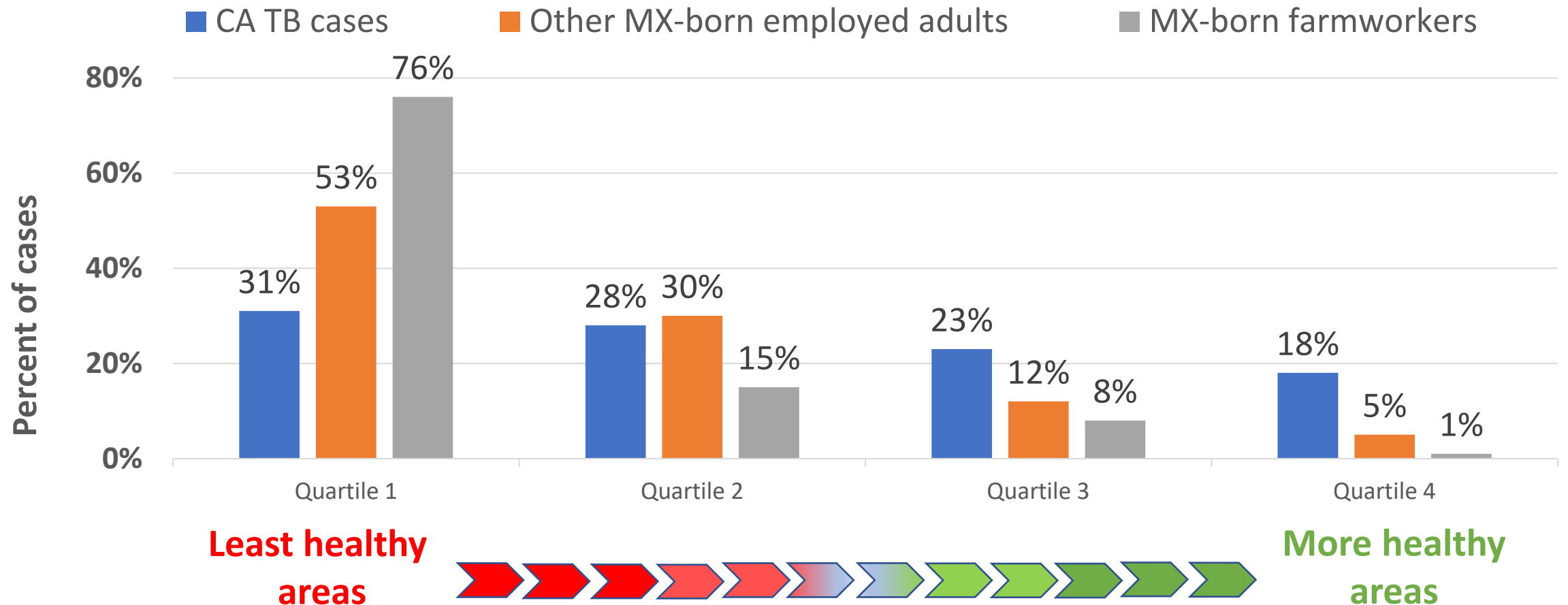
Medically Underserved Areas/Populations

# What is the Healthy Places Index (HPI)?



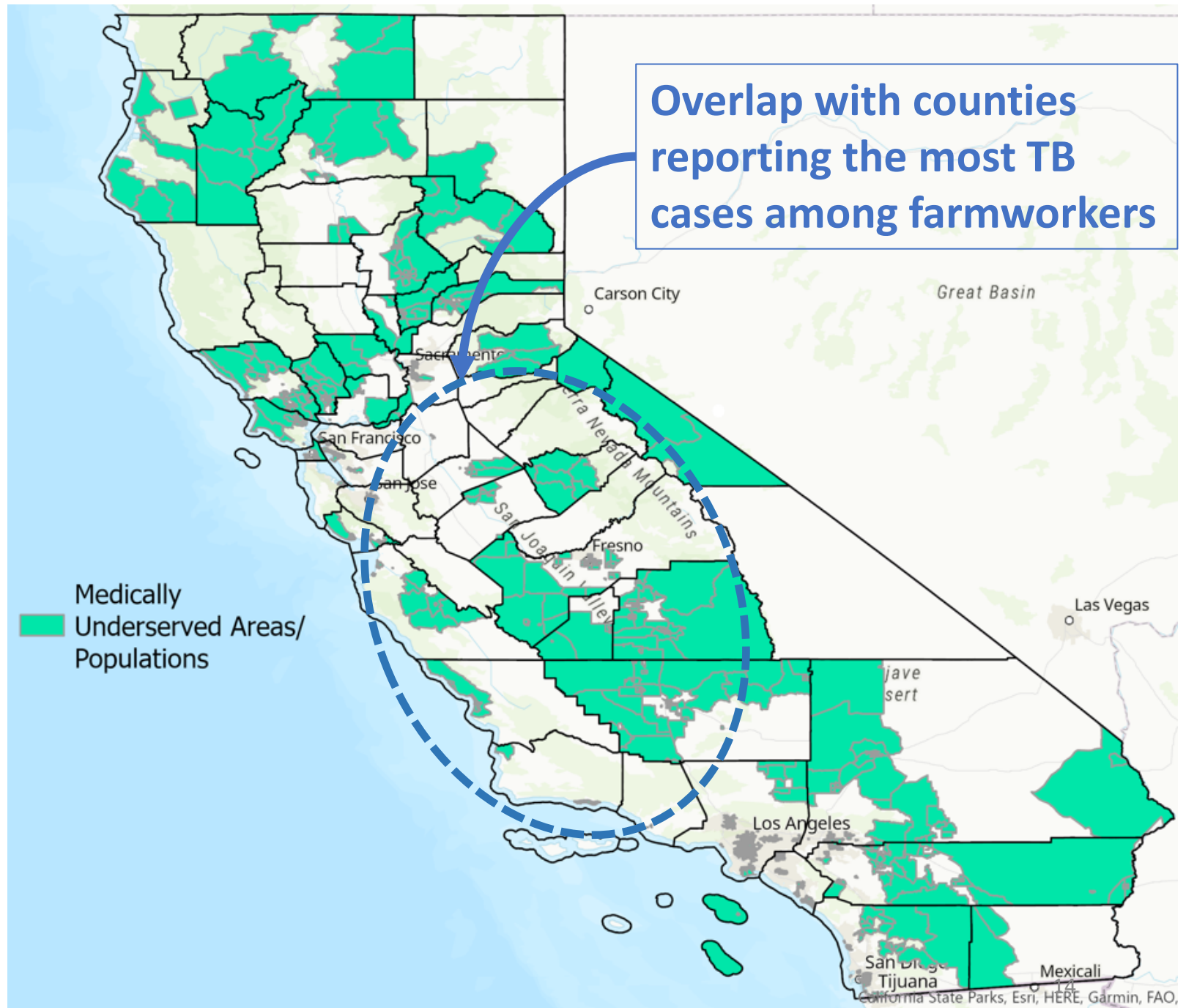
Source: [www.healthyplacesindex.org](http://www.healthyplacesindex.org); Public Health Alliance of Southern California

# There are socioeconomic inequities among TB cases in California\*



\*California TB cases from 2013-2022

Farmworkers live and work in medically underserved areas of California





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PAYMENT REFORM

# RURAL HOSPITALS AT RISK OF CLOSING

Many people across the country could not receive hospital care in their community when the pandemic began because over 150 rural hospitals had closed between 2005 and 2019. An additional 18 rural hospitals closed in 2020, more than any year in the previous decade. These closures were not caused

## Loss of Rural Hospitals Would Reduce Access and Increase Disparities in Care

Most of the at-risk hospitals are located in isolated rural communities. Closure of the hospital would mean the residents of

# Limitations

- Cannot distinguish between different ethnic groups among Mexico-born TB patients in the TB surveillance data
- Misclassification of farmworkers could underestimate cases
- Address reported for the TB patient may not reflect where they lived or worked



# Summary

- Majority of TB patients reported as farmworkers in California were born in Mexico and have been in the U.S. for >10 years
- Compared to other Mexico-born adult TB cases, farmworkers were more likely to
  - Be younger in age
  - Have excess alcohol use
  - Identified as a contact to an infectious TB case
  - Have more infectious TB disease
  - Have received TB care at a local health department
  - Have moved during TB treatment

# Summary (continued)

- Most of the reported farmworker TB cases were reported in low- and medium-morbidity jurisdictions in central California
- Overall, the majority of Mexico-born TB cases live in the least healthy areas of California which can impact health
- Differences between farmworkers and other Mexico-born TB patients suggest the need for specialized approaches in TB control and prevention





# Thank you!

## Acknowledgments

- California local health departments
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- Stephanie Spencer

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