

# Retaining Nurses in TB Tuberculosis Control & Refugee Health Branch

## A Dedicated Contact Investigation Team



COUNTY OF SAN DIEGO  
HEALTH AND HUMAN SERVICES AGENCY



LIVE WELL  
SAN DIEGO



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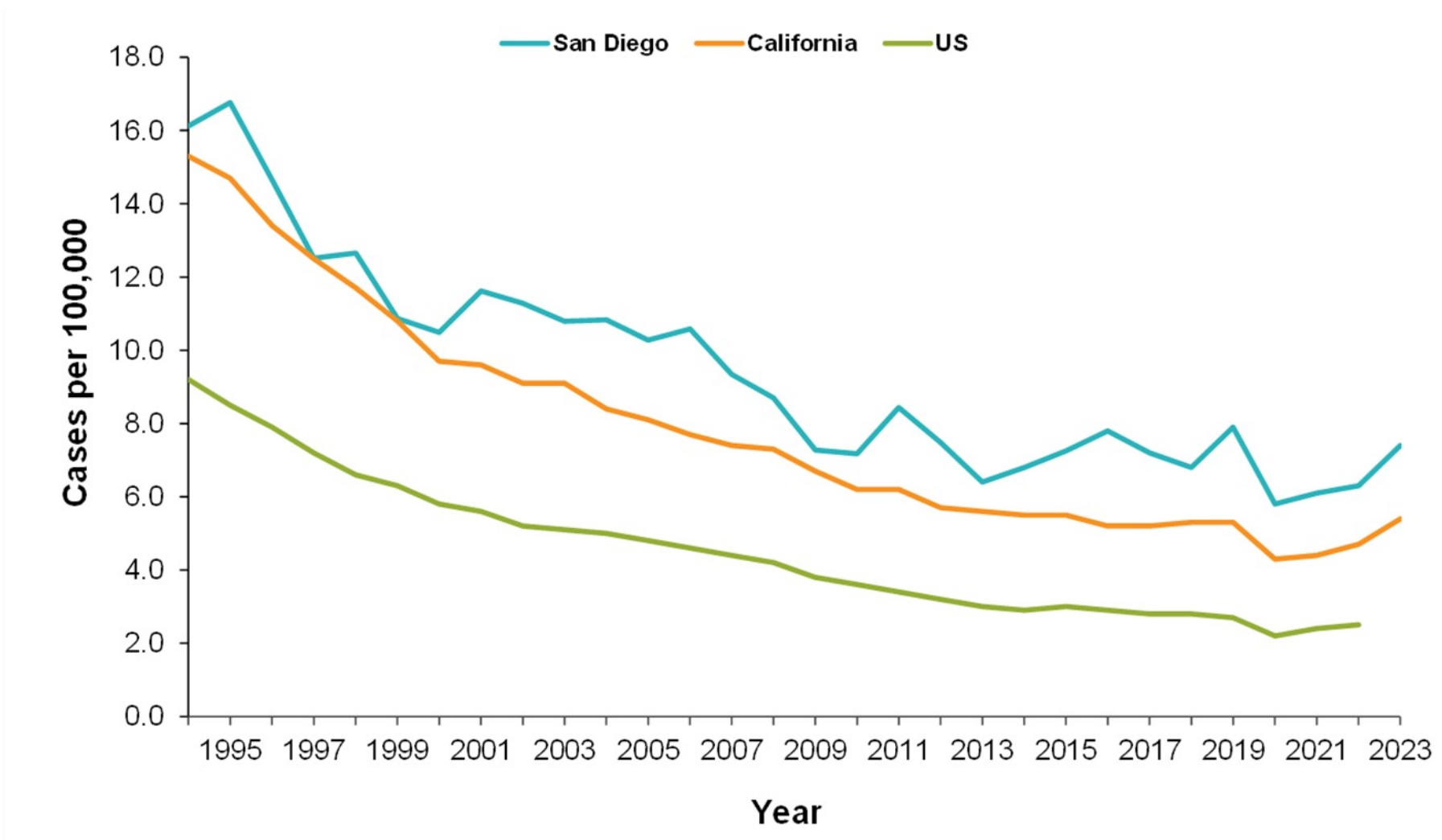


# County of San Diego



- estimated 2024 population is 3,262,770 according to the most recent United States census data.
- San Diego County, California is the 2nd largest county in California.
- the number of active TB cases in San Diego County has risen since 2020, reaching 243 reported cases in 2023, a 17% increase that has returned the county to pre-pandemic levels.
- San Diego County case rate: 7.4 cases per 100,000.

# NATIONAL, STATE, AND LOCAL TB INCIDENCE RATES, 1994 – 2023



# TB CASE MANAGER



## PRIOR ROLE & RESPONSIBILITY

- Case Management for all clients with active TB diseases (presumptive, confirmed, clinical)
- Contact Investigation (CI) of close contacts (household, families, friends, neighbors, etc.)
- Source case investigation (new latent TB infection < 2 years of age, active TB < 5 years of age, active TB immunocompromised, new pleural TB < 35 years of age)
- Assist large CIs in workplaces, schools, shelters, etc.



# Retention of PHN Case Manger

- Has been very challenging.
- Vacancy rate: 2 – 6 yearly (2005 – 2024) out of 8 – 12 positions.
- Exit interview feedback: nurses left for different reasons but one came up frequently was workload burden.
- In 2020, branch leadership requested the development of contact investigation team of 7 (1 PHN Supervisor, 1 Sr. PHN, 2 PHNs, 2 CDIs, 1 OA) and 1 Social Worker to assist nurses with social needs.
- Contact investigation team was built in February 2022.
- 1 Social worker was hired in February 2023.
- Dedicated 1 Sr. PHN to be the field trainer and preceptor to train new PHN case managers on TB case management and co-manage new patients until case manager is ready to be on their own.

# Benefit for having this new CI team



- Case Managers can focus managing patients with active TB diseases.
- Orientation of a new PHN case manager was shortened to 50%.
- CI team focuses on contact evaluation completion and LTBI treatment completion.
- Short orientation of CI team helps new staff to get up and running quicker.

# A DEDICATED CONTACT INVESTIGATION TEAM

Angie Miner, PHN Supervisor



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# Historical Perspective

- Approximately 1000 household TB contacts/year
- Contact Investigation (CI) performed by Public Health Nurse (PHN) case managers prior to 2022
  - PHNs entered all data in database
  - LTBI treatment—limited follow-up by PHN
  - Treatment outcomes obtained by Epi Team

# New Contact Investigation Team

- Established Feb 2022
- A gradual team building
- Hybrid team:
  - Communicable Disease Investigator (CDI) -2
  - PHN -2
  - Senior PHN -1
  - Office Assistant -1
  - Supervising PHN -1





# PHN Case manager: Revised Role

## PHN case manager

- Interviews person with TB disease
- Establishes the Infectious Period
- Identifies contacts
- Refers household Contacts to CI Team

# CI Team Scope of Work



- Initiate communication with household contacts
- Testing/evaluation
- Refer for treatment for LTBI
  - Private PCP or County LTBI Clinics
- Monitor patients who are on treatment until completion
- Maintain Contact Database
  
- 90% office based; 10% out in community settings

# Role Delineation



- CDIs
  - Maintains field caseload by providing contact investigation to identified TB patients
  - Assists in screening activities related to TB disease investigations of close contacts
  - Provides consultation on contact investigation activities
- PHNs
  - WPP, high-risk contacts
- Senior PHN
  - Staff training and education
  - Establishing written standard procedures
  - Assist in policy development

# Role Delineation - Continued



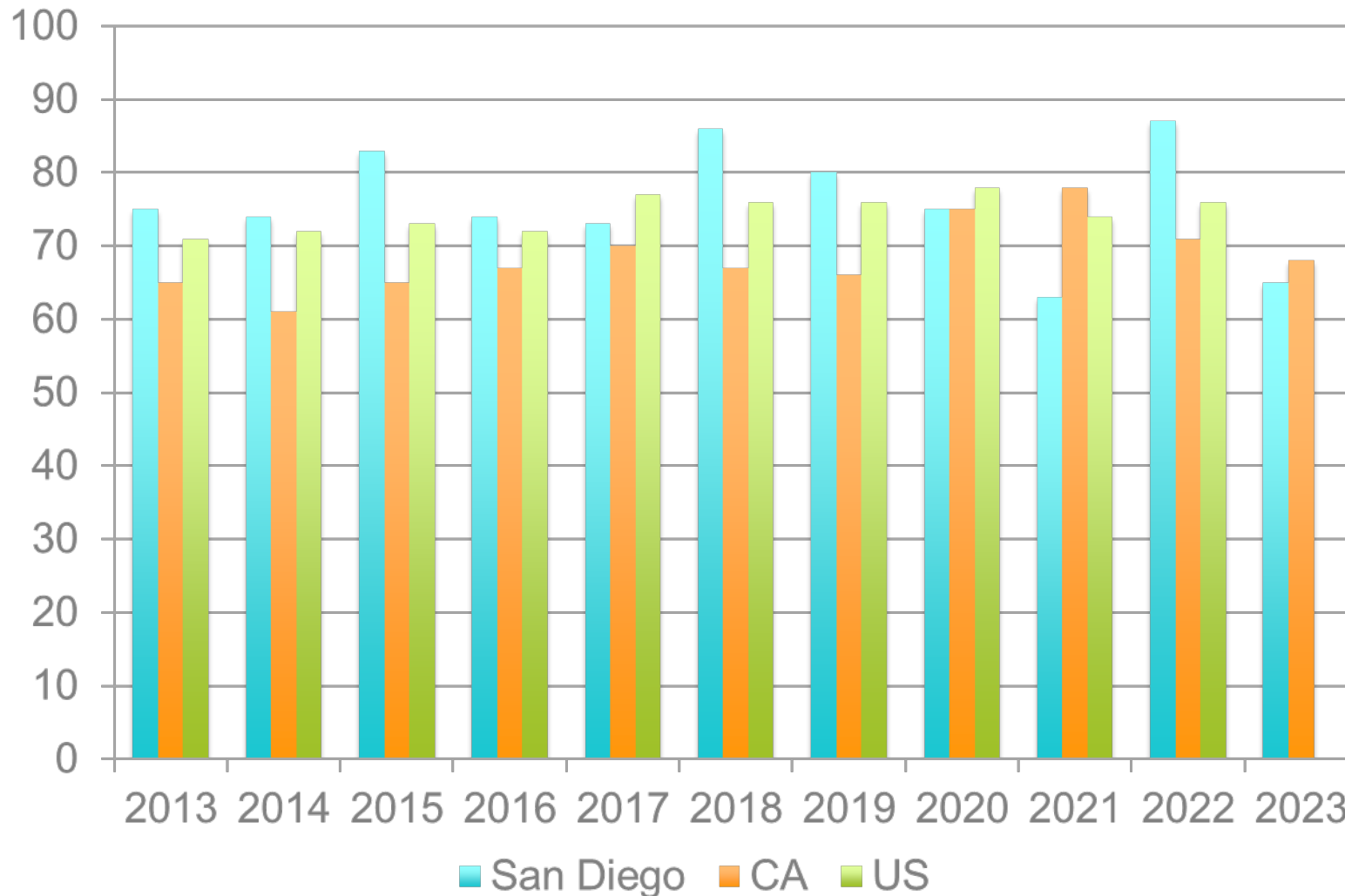
- Office Assistant
  - Primarily enters data
  - Assists with medical record management
  - Maintains medical supplies
  
- Supervising PHN
  - Provide supervision in assigning, directing, and evaluating the work of subordinate staff
  - Act as resource to staff regarding contact investigation
  - Performs ongoing quality assurance/quality improvement activities
  - Reviews for appropriate contact evaluation completion and closure from the staff



# Contact Database

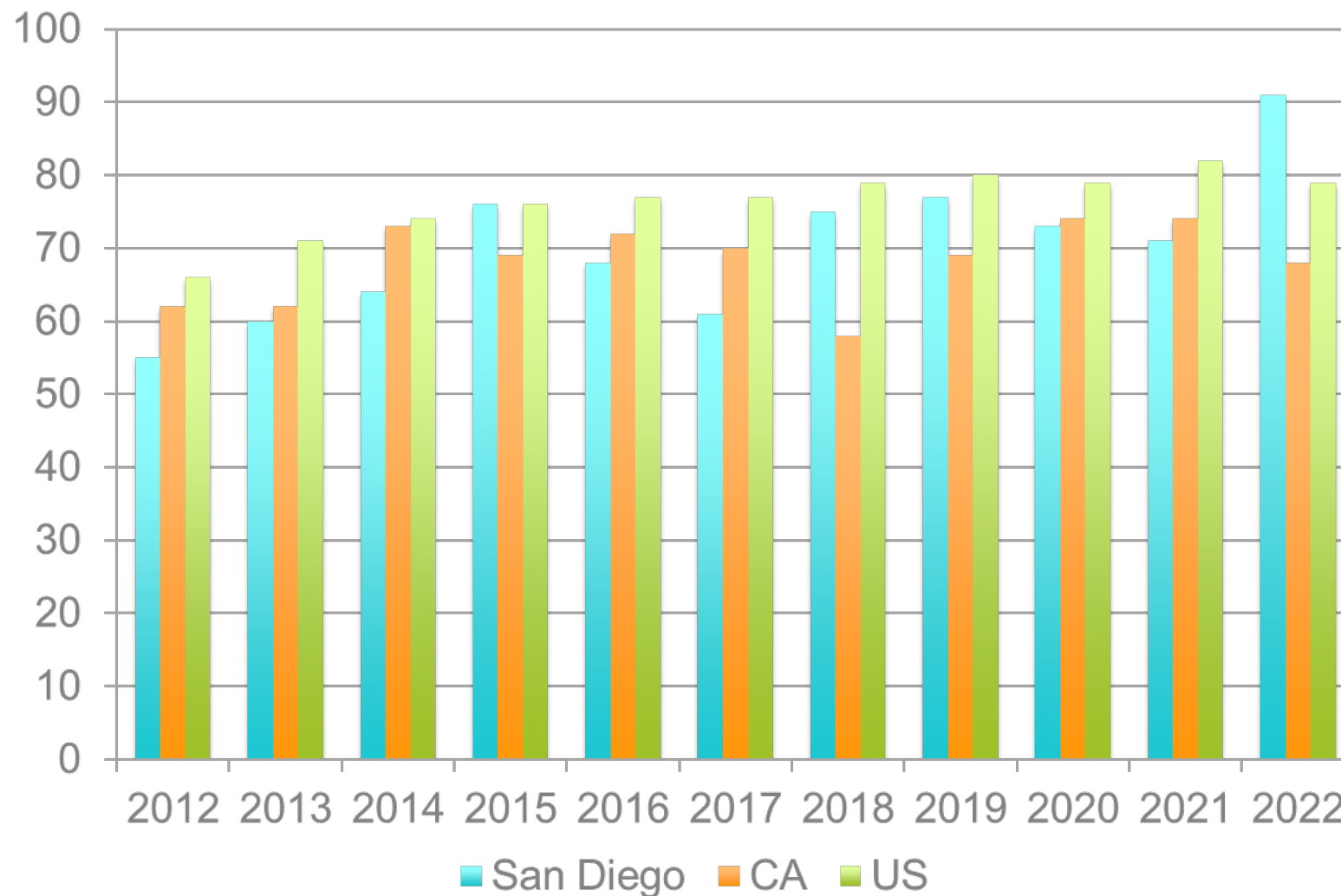
- Integrity is essential to data analysis
- Captures workload
  - TB Not Proven or Non-Tuberculous Mycobacterium (NTM)

# LTBI Treatment Initiation Among Contacts to Sputum Smear-Positive Cases, 2013-2023\*





# LTBI Treatment Completion Among Contacts to Sputum Smear-Positive Cases, 2012-2022





# CI team supports other CI

- Outbreaks
- Large investigations: schools, daycare centers, shelters, other special situations

# CI TEAM



Ramses Morel Nunez, CDI  
Maria Pinedo, CDI  
Ziv Go, PHN  
Andrea Gallo Palafox, PHN  
Kayla Bisbal, Senior PHN  
Lynette Wells, RN, contract staff  
Ladan Yosoofti, Office Assistant  
Angie Miner, Supervising PHN





# Questions?

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# THANK YOU!

## Contact Information



*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.*