NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION

Describing the Tuberculosis Infection Care Cascade based on Electronic Health Record Data

Laura A Vonnahme[1], Jonathan Todd[2], Jon Puro[2], Jee Oakley[2], Matthew Jones[2], Pedro Rivera[2], Adam Langer[1], Tracy Ayers[1]
[1]Division of Tuberculosis Elimination, Centers for Disease Control and Prevention, Atlanta, GA, USA
[2]OCHIN, Portland, OR, USA

BACKGROUND

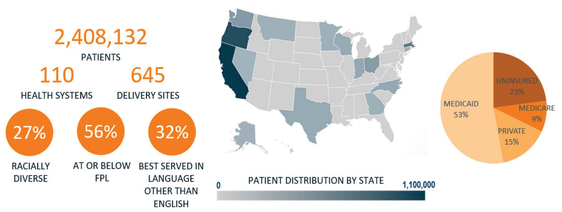
- Estimated 5% of U.S. population have latent TB infection (LTBI)
- Over 80% of TB cases attributed to LTBI reactivation
- TB elimination in U.S. requires increased screening for TB infection and treatment
- Need to engage community health clinics (CHCs) where populations at risk for TB infection may seek care

OBJECTIVES

- Characterize the LTBI care cascade in CHCs
- Identify gaps in care cascade for future interventions to increase TB screening and treatment

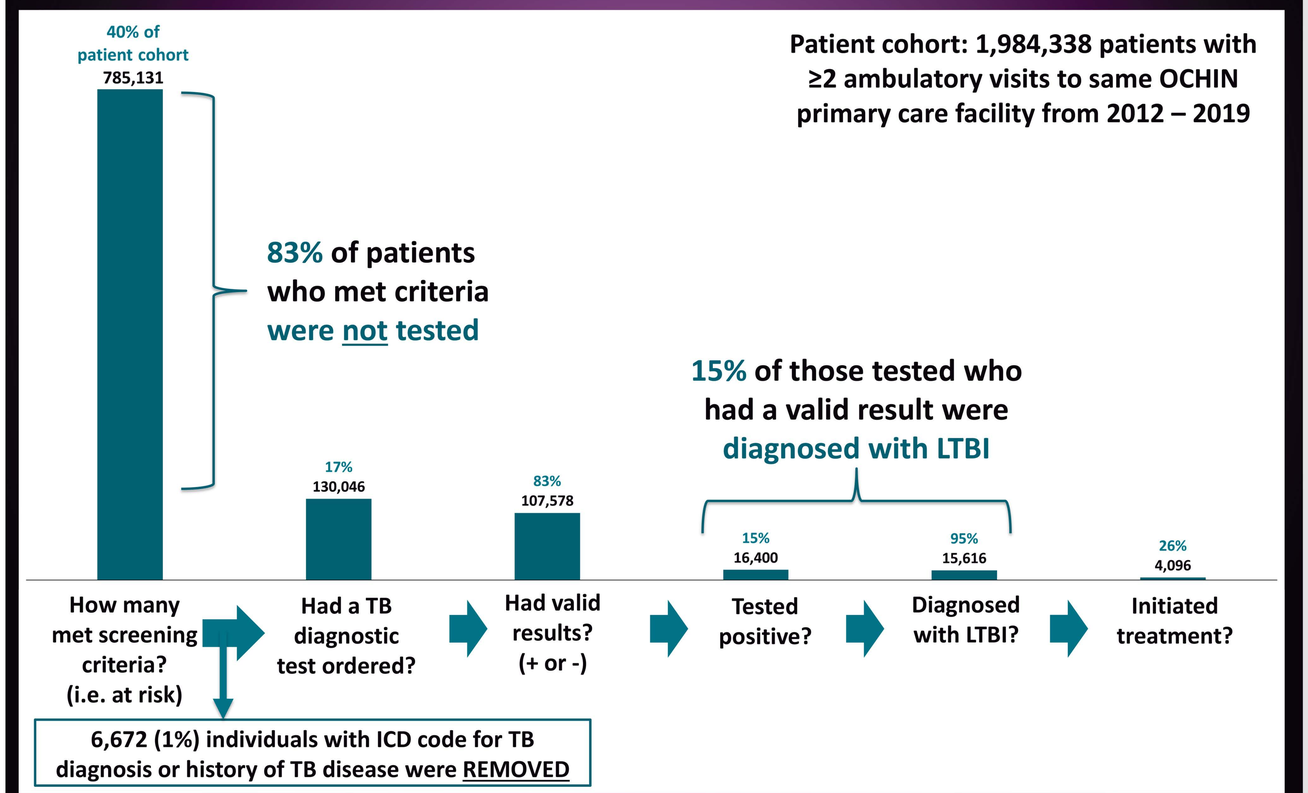
METHODS

Data source: OCHIN ADVANCE research database



- **Patient cohort:** 1,984,338 patients with ≥2 ambulatory visits to same OCHIN primary care facility from 2012 – 2019
- **Patients who met TB infection screening criteria:**
  - Non-US–born or non-English speaking persons
  - Close contact to person with infectious TB disease
  - Living or ever lived in congregate setting
  - Medical risk (i.e. immunosuppression)
- **Diagnostic tests:** Tuberculin skin test (TST), interferon-gamma release assay (IGRA)
- **Determining diagnostic test result:**
  - If patient had IGRA result that was valid, result of that test used to determine patient test result.
  - If no valid IGRA result, then TST result considered
- **Diagnosis:** ICD 9/10 diagnostic code
- **Treatment initiated:** Prescribed isoniazid (INH) + Rifapentine or INH or Rifampin/Rifabutin

Populations at risk for TB infection seek care at community health clinics, but the majority are not being screened for TB infection and those diagnosed with LTBI are not being treated.



40% Met screening criteria → Large proportion of CHC population at high risk for TB infection

15% diagnosed with LTBI → LTBI prevalence reflective of high-risk population

83% who met criteria not tested

26% diagnosed with LTBI prescribed treatment

→ CDC guidelines not widely implemented

LIMITATIONS

- A large sample, but not necessarily representative of all CHCs
- Treatment completion step of care cascade is unknown

ACKNOWLEDGMENTS

- CDC: Amy Krueger, Matt Whipple
- Denver Health: Bob Belknap, Kaylynn Aiona
- OCHIN, Inc.: Shane Morgan

This work was conducted with the Accelerating Data Value Across a National Community Health Center Network (ADVANCE) Clinical Research Network (CRN). The ADVANCE network is led by OCHIN in partnership with Health Choice Network, Fenway Health, and Oregon Health and Science University. ADVANCE is funded through the Patient Centered Outcomes Research Institute (PCORI), contract number RI-CRN-2020-001.

CONTACT INFO

Laura Vonnahme
lvonnahme@cdc.gov

www.cdc.gov | Contact CDC at: 1-800-CDC-INFO or www.cdc.gov/info The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.