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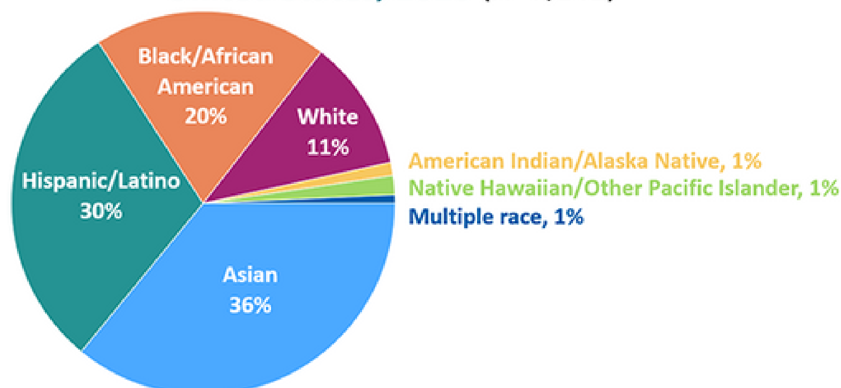
QUALITY IMPROVEMENT STRATEGIES FOR LTBI SCREENING, TESTING, AND TREATMENT IN AA AND NH/PI-SERVING HEALTH CENTERS: EHR TEMPLATE DEVELOPMENT LEARNING COLLABORATIVE

A/AA AND NH/PI LANDSCAPE

Asian/Asian American (A/AA) and Native Hawaiian/Pacific Islander (NH/PI) communities continue to be impacted by tuberculosis (TB) at a greater rate compared to other racial and ethnic groups. Countries with the highest TB burden among non-U.S.-born Asians and Pacific Islanders include the Philippines, India, Vietnam, China, Myanmar, and the Marshall Islands (CDC, 2022).

In 2021, more than 7,860 cases of TB were reported in the United States (Tuberculosis — United States, 2021 | MMWR). Native Hawaiian/Pacific Islander populations have the highest TB incidence rate of 19.0 cases per 100,000 persons, and Asian populations have the second highest TB incidence rate of 14.4 cases per 100,000 persons. Incidence rates vary widely when A/AA and NH/PI subgroups are disaggregated. To address these TB incidence inequalities, the TB Elimination Alliance aims to conduct outreach to underserved A/AA and NH/PI communities most affected by TB; increase awareness and understanding of culturally and linguistically appropriate latent TB infection (LTBI) and TB screening, testing, and treatment strategies; share resources and best practices among providers; and develop partnerships to scale existing initiatives.



Source: CDC Division of Tuberculosis Elimination, 2022

LEARNING COLLABORATIVE INITIATIVE

The Uniform Data System does not report on LTBI, and TB remains a clinical priority among health centers who serve the A/AA and NH/PI populations. To prioritize LTBI and TB disease management, AAPCHO and the TB Elimination Alliance organized a second online Learning Collaborative in February 2022 for interdisciplinary healthcare providers and administrators from health centers, community-based organizations, and public health departments to explore quality improvement strategies for LTBI screening, testing, and treatment on electronic health record (EHR) template development.

The Learning Collaborative goals included the development EHR templates, education on the 12-dose regimen, guidance on TB as a national clinical quality measure, and training for clinical and enabling services providers who focus on LTBI screening, testing, and treatment.

This Learning Collaborative was supported by the Centers for Disease Control & Prevention (CDC) and the Health Resources & Services Administration (HRSA); and modeled after quality improvement initiatives created by TB Free California. AAPCHO and the TB Elimination Alliance would like to recognize the following Subject Matter Experts:

- **Amy Tang, MD**, *Director of Immigrant Health,* North East Medical Services (California)
- **Devan Jaganath, MD, MPH**, *Assistant Professor,* UCSF Division of Pediatric Infectious Diseases and Global Health (California)
- **Janna Steele, Pharm.D,** *LTBI Project Manager*, Colorado Alliance for Health Equity and Practice (Colorado)
- **Kara Green MSN, APRN, FNP-BC,** *Director of Clinical Services and Quality Improvement*, HOPE Clinic (Texas)
- **Y-Uyen Le Nguyen, MD**, *Director of the Hepatitis B Program*, Charles B. Wang Community Health Center (New York)

LEARNING COLLABORATIVE GOALS AND LESSONS LEARNED

The Learning Collaborative focused on the following goals:

Challenges and barriers around EHR modification and template development

Identify tools to understand and implement EHR templates

Develop a roadmap for EHR template development processes

Learn from Subject Matter Experts - challenges, best practices, and peer-to-peer learning

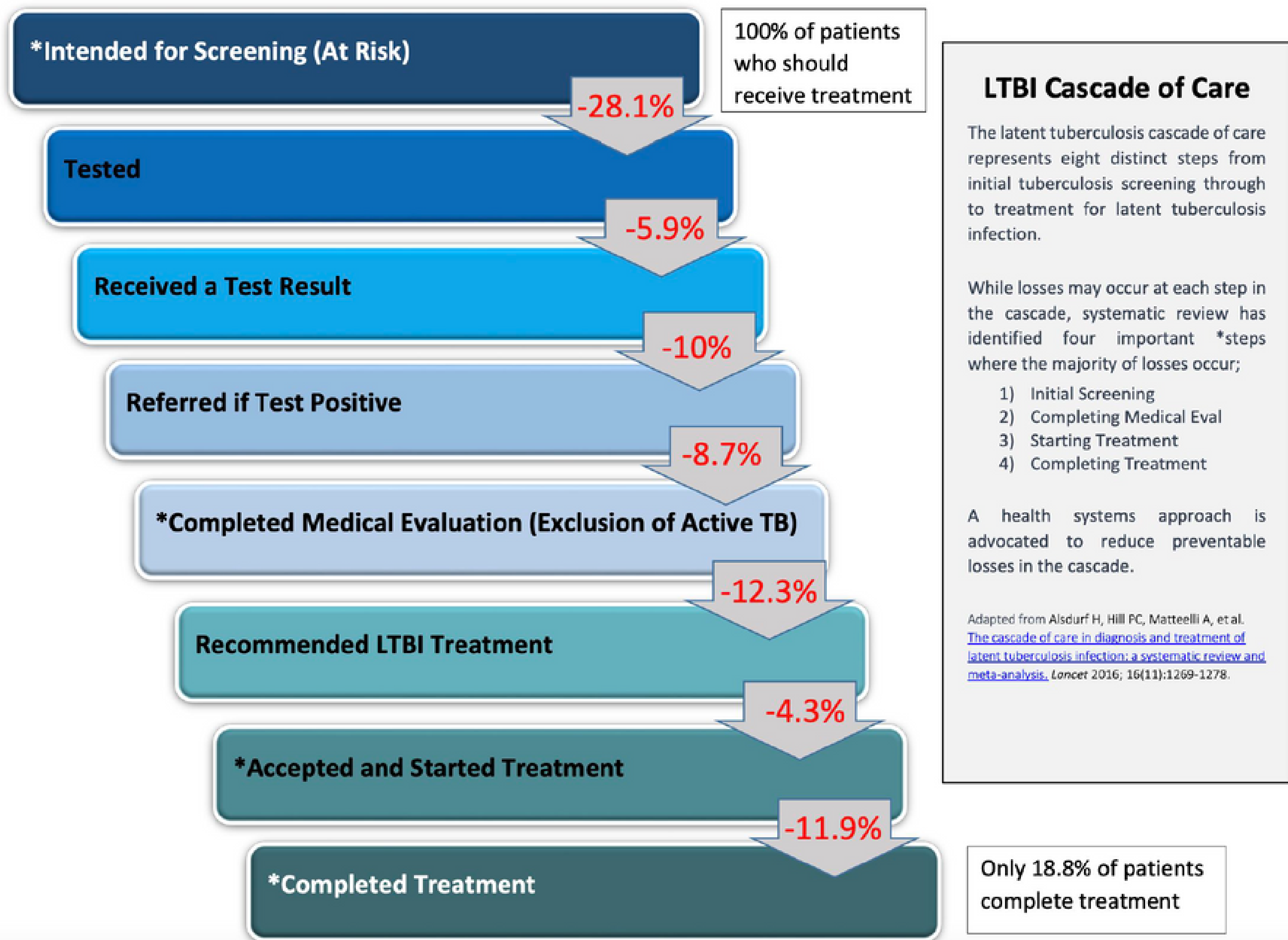
The Learning Collaborative provided educational resources on the following:

- Quality Improvement Tools (Page 5)
  - CDC Strategy for Addressing LTBI
- Cause and Effect Diagrams (Page 6)
  - Root Cause Analysis
  - Fishbone Diagram

Health centers, community-based organizations, and public health departments are encouraged to utilize these resources to adopt continuous quality improvement strategies that can result in improved processes for LTBI screening, testing, and treatment on EHR template development.

QUALITY IMPROVEMENT TOOLS

LTBI CARE CASCADE

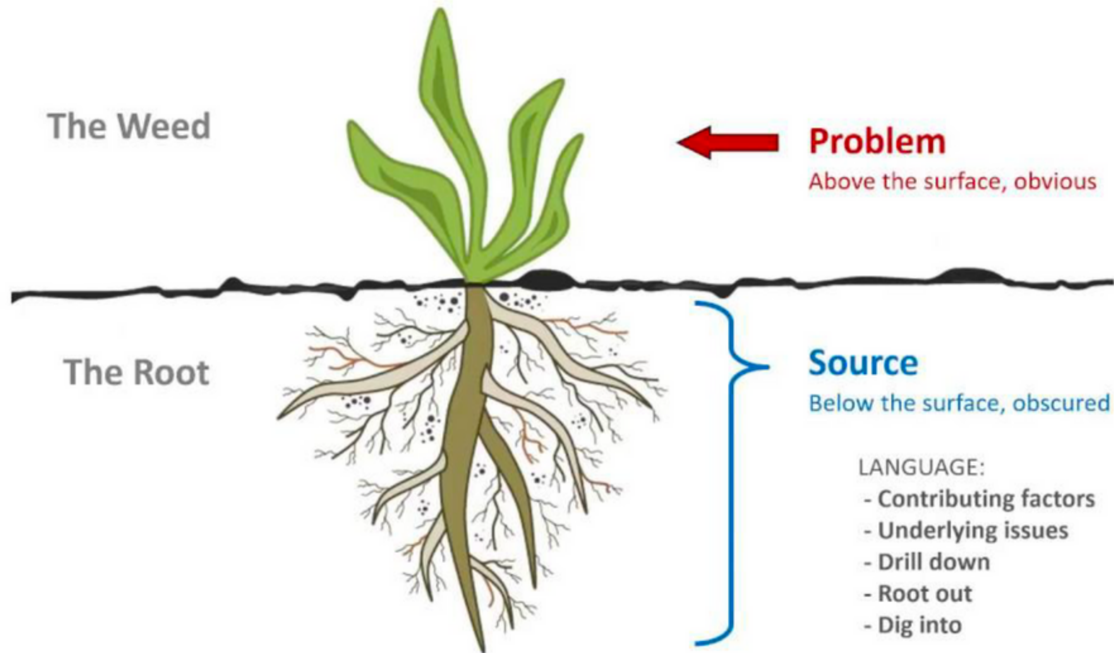


Source: IHS.gov

In order to provide quality care for persons with LTBI, it is necessary to understand the complex, multi-staged patient journey known as the LTBI cascade of care (Hannah & Dick, 2020). The LTBI cascade of care represents eight distinct steps from initial tuberculosis screening through to treatment for LTBI.

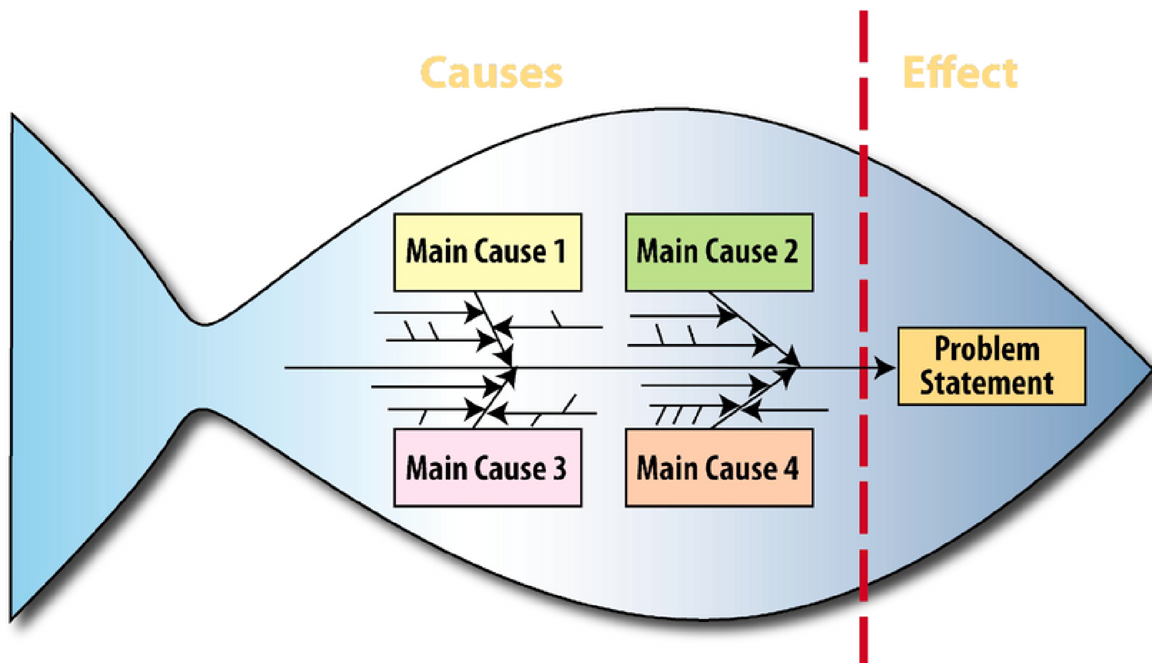
CAUSE AND EFFECT DIAGRAMS

ROOT CAUSE ANALYSIS - THE CONCEPT



Source: ThinkReliability, 2018

FISHBONE DIAGRAM

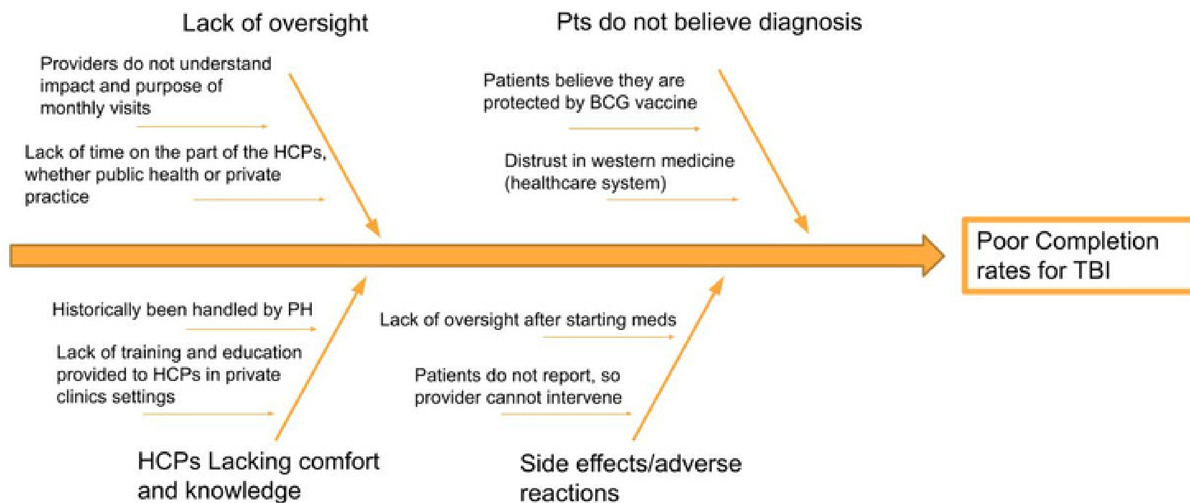


Source: AIDS Education & Training Centers, 2007

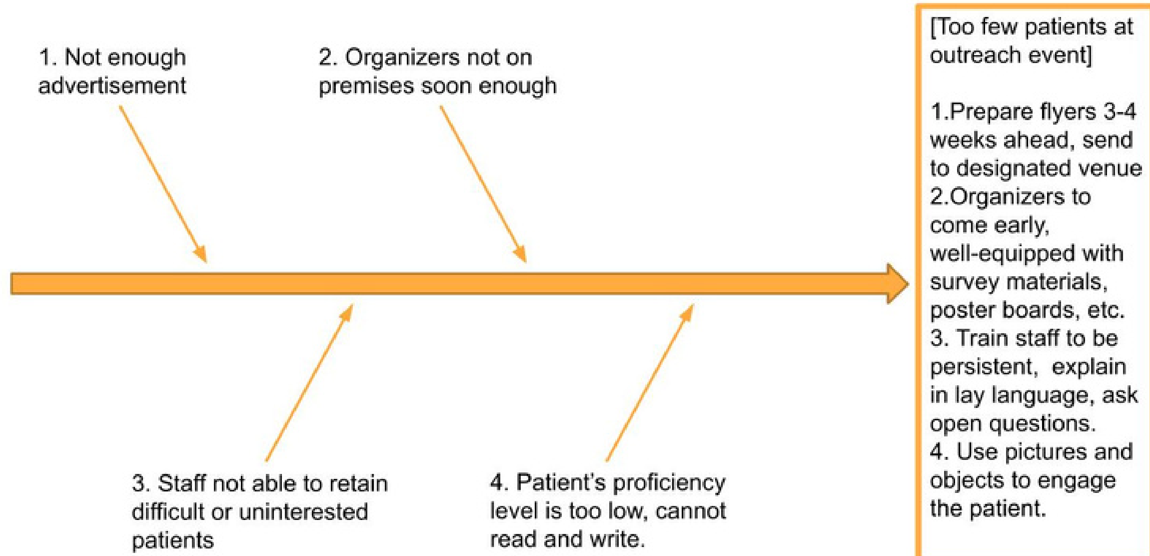
CASE STUDIES: FISHBONE DIAGRAMS

The Learning Collaborative consisted of a cohort of healthcare providers and administrators from health centers, community-based organizations, and public health departments. The following are fishbone diagrams and SMART solutions developed by the cohort members.

Case Study 1

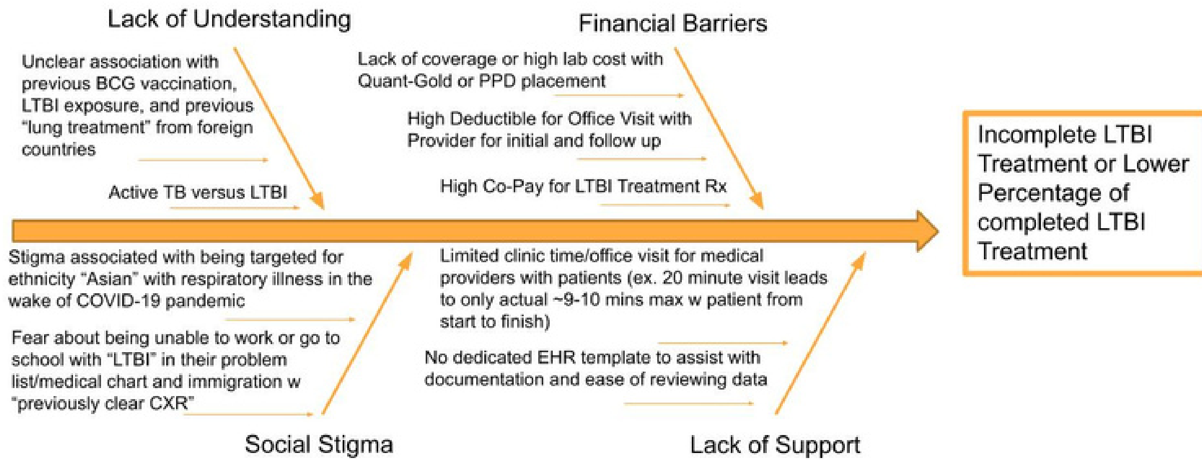


Case Study 2

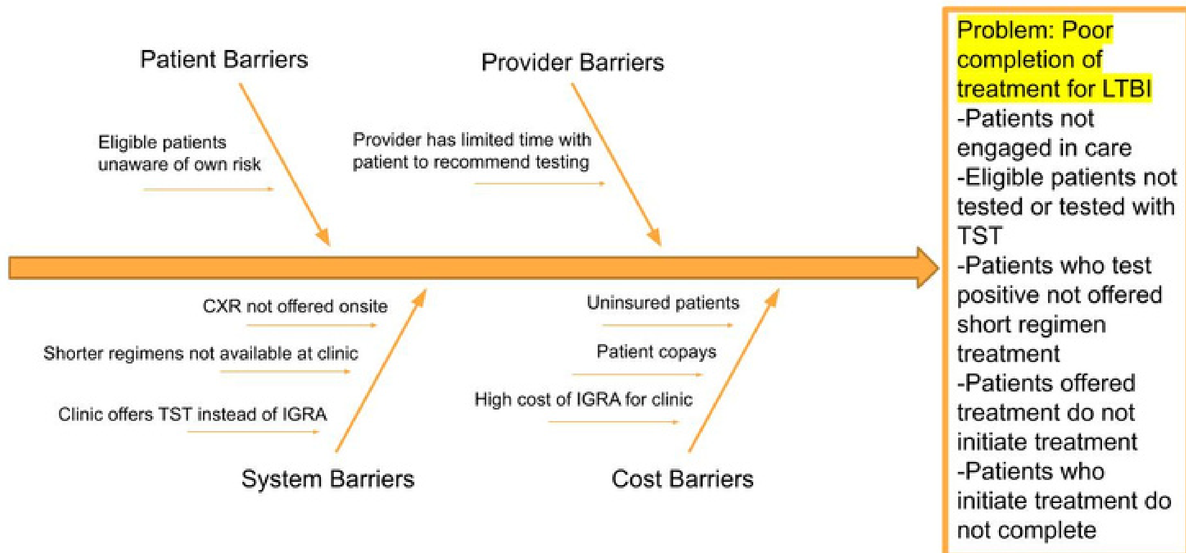


CASE STUDIES: FISHBONE DIAGRAMS

Case Study 3

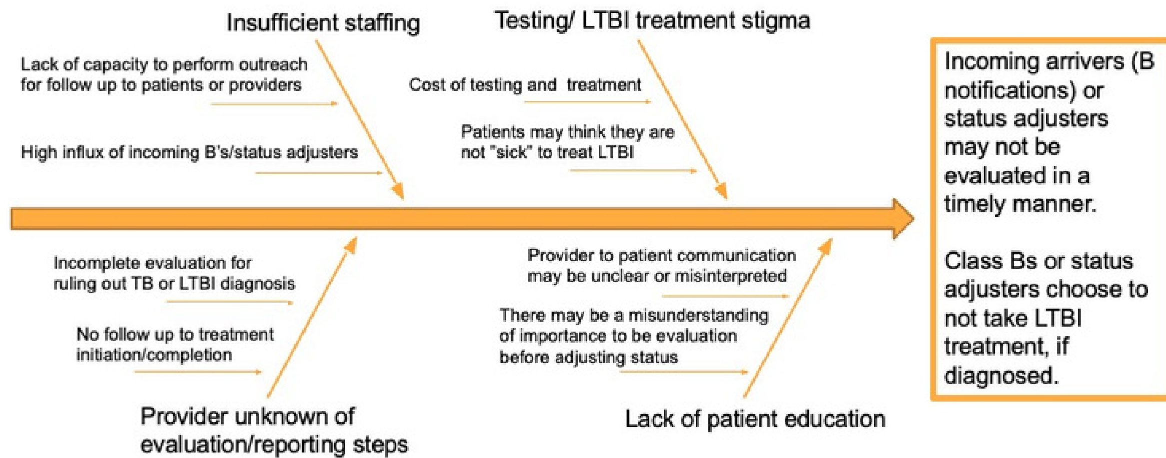


Case Study 4

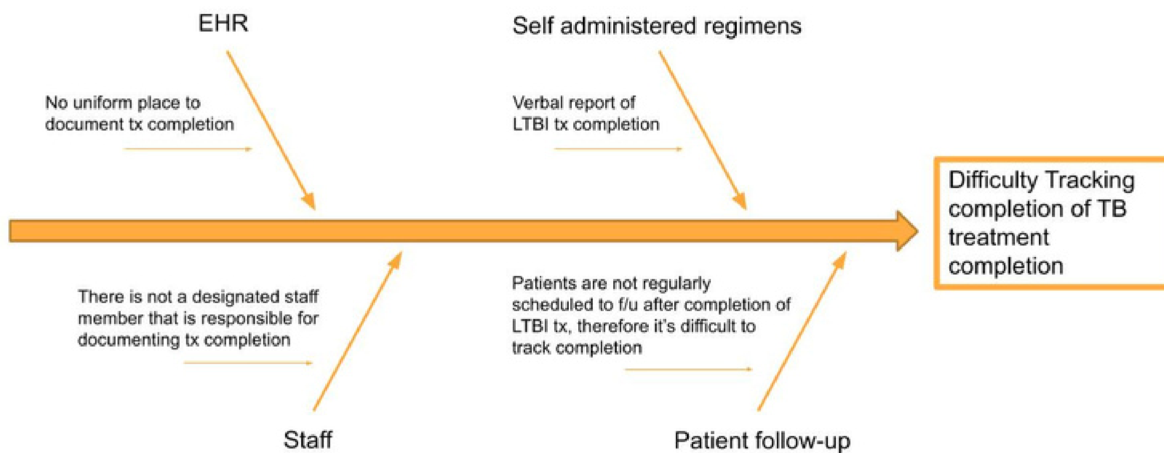


CASE STUDIES: FISHBONE DIAGRAMS

Case Study 5



Case Study 6



AAPCHO Association of Asian Pacific Community Health Organizations
TB Elimination Alliance

CASE STUDIES: SMART SOLUTIONS

Case Study 1

Main Cause	Specific	Measurable	Attainable/ Achievable	Relevant (Yes/No)	Time Bound
Lack of Understanding	Have flyers about TB and LTBI readily available in the clinic to hand out to patients. Have posters available in the exam room and direct phone line to answer questions about LTBI and TB.	+ Consideration of Survey on baseline understanding of TB and LTBI + Observe and consider measuring of an increase in office visits about LTBI or TB concerns or in telephone calls patients asking about LTBI treatments (in person or phone)	Yes	Yes	No
Social Stigma	Hold LTBI and TB community discussion sessions and listen to the target patient's concern. Have poster/flyers readily available in the clinic for patients with direct phone line to answer questions about LTBI and TB and treatments.	+ Consider of pre and post discussion survey regarding stigma + Consider dedicated Pharmacy/RN line for LTBI/TB information including treatment options + Observe and document if there is an increase in patients asking about LTBI treatments (in person or phone) or increase in office visits about LTBI or TB concerns.	Yes	Yes	No
Financial Barriers	Work with the Billing Department to understand the estimated cost for each scenario plan to provide for patient reference. Have the phone lines for financials support resources readily available to provide to patient.	+ Utilization of billing reference for transparency around cost for medication and labs + Consideration of grant/funding for patients who are unable to financially pay for LTBI tx + Consider measurement of an increase in patients asking about LTBI treatments (in person or phone) after the estimated cost share out.	Yes	Yes	No
Lack of Support for Providers	Create specific LTBI and TB patients workflow including EHR template to assist with documentation and tracking during office visits. Create a set of questionnaire for Pharmacy to follow up with patients on their treatment progress when patients call or walk in for medication/treatment refill.	+ Consider reports on Provider's usage of templates to see if there's an increase in LTBI and TB treatment documentation. + Monitor patient's treatment progress through Pharmacy's questionnaire answers and see if the numbers of patients we are able to attain information from has increased as compared to before (when we did not have our Pharmacy following up with patients).	Yes	Yes	No

Case Study 2

Main Cause	Specific	Measurable	Attainable/Achievable	Relevant (Yes/No)	Time Bound
Chest x-ray is negative	X-ray neg report adds a EMR* message about LTBI treatment recommendation by CDC	Follow-up to see whether physician recommended LTBI treatment for patient	yes	yes	1 year
	LTBI treatment recommendation in physician journals (Primary care, Internal medicine, etc.)	Count number of articles by discipline published in journals.	yes	yes	no
	Provider information about shortened treatment regimens. reassurances about treatment regimen.	Possibly a survey of whether physicians are acting on the LTBI CDC treatment recommendation at AMA convention or in journals	yes	yes	

*Electronic Medical Records (EMR) is used interchangeably with EHR

RECOMMENDATIONS

Health centers, community-based organizations, and public health departments are encouraged to pursue quality improvement strategies to systematically address key barriers and solutions for LTBI and TB EHR template development. With a continuous quality improvement framework, providers will be able to strengthen their LTBI Care Cascade to increase screening, testing, and treatment for vulnerable A/AA and NH/PI communities disproportionately impacted by LTBI and TB.

For more information about the TB Elimination Alliance and future training opportunities, visit https://tbeliminationalliance.org/.

DISCLAIMER

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