

ID: 88117747

Infectious Diseases - Host Site Description

Public Health Seattle & King County

Assignment Location: Seattle, US-WA
Public Health Seattle & King County
Prevention - TB Program

Primary Mentor: Dong Ryul Lee, MPH
Epidemiologist II
Public Health - Seattle & King County

Secondary Mentor: Yoseph Sorri, MD, MPH & CPH
Epidemiologist III
Public Health - Seattle & King County

Work Environment

Hybrid

Assignment Description

The CSTE fellow will be assigned to the PHSKC TB Program. After their start date, they will be oriented to the TB Program following the new employee orientation checklist. They will spend at least the first month on completing mandatory King County and TB-specific trainings, gaining access to data systems and getting acclimated to the organizational structure, meetings, systems and databases, and processes in the TB clinic. Upon completion of orientation and trainings, they will be acclimated to the day-to-day Epi Unit tasks, including submitting reports of verified cases of TB, complete data quality assurance, analyzing data sets, writing scientific reports, dashboard development and routine TB surveillance data duties. They will also have the opportunity to observe and eventually lead community contact investigations as well as have involvement in any outbreak investigations that may occur. The fellow would also have the opportunity to serve as surge capacity for any other program's epidemiology needs during an outbreak.

Describe Statistical and Data Analysis Support, Such as Databases, Software, and Surveillance Systems Available to the Fellow

The fellow will have robust access to a variety of databases, statistical software, visualization software and surveillance systems. These include R, Power BI, CDC EDN (Electronic Disease Notification), TB Genotyping Information Management System (TB GIMS), TREATS (TB Program's surveillance database), Washington Disease Reporting System (WDRS), EPIC (electronic health record system) & RedCap. They will utilize these systems to complete data quality assurance work, creating technical reports, and database development and evaluation. The TB Program has four epidemiologists that are experts with all these resources, and will be responsible for mentoring the fellow to become proficient. Additionally, the program hired a former CSTE fellow who can also provide support to a new fellow.

Projects

Surveillance Activity Title: GIMS Review Process

Surveillance Activity Description:

The CSTE fellow will be responsible for helping piloting a novel GIMS review process. TB is a disease that can be genotypically linked to other active cases. The fellow will conduct active surveillance of GIMS data and helping the implementation of a GIMS review within the program. Additionally, it is imperative to understand spatial characteristics of cases with the same strain. They would also be responsible enhancing mapping and understanding the cases of the same strain and their relative location to each other.

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Surveillance Activity Objectives:

They will develop a GIMS Review Process Protocol and a GIMS dashboard, where they will update and assist developing version 3 of a virtual dashboard on Power BI to see location of cases of the same genotype within King County.

Surveillance Activity Impact:

This project allows for more regular surveillance of cases that are genotypically linked to each other, leading to earlier detection of outbreaks and enforcement of the public health interventions needed to stop potential transmission.

Surveillance System Evaluation Title: TREATS Surveillance System Evaluation

Surveillance System Evaluation Description:

TREATS is an internal database system that pools four major databases together and has integration with PHSKC's electronic health record system, EPIC. The CSTE fellow would be utilizing CDC's Surveillance System Evaluation Framework to guide an evaluation of selected attributes of the TREATS surveillance system to identify successes as well as gaps to improve the surveillance system

Surveillance System Objectives:

The fellow will create a technical report of evaluation of its functionality and suggestions for improvement using CDC guidelines of surveillance system evaluation.

Surveillance System Impact:

Helps the TB program improve data quality and database management, and will strengthen analysis potential to help TB program continue to make data driven decisions to improve quality of care, and operations.

Major Project Title: Class B1 Evaluation

Major Project Description:

The CSTE fellow will be responsible for the data oversight of the Class B1 process for the TB Program. The TB Program had a historic year in regard to total notifications in 2025. With this in mind, there is an increased need to evaluate new arrivers with overseas abnormal chest x rays. They would be responsible as the project lead under the primary mentor to ensure data needs and appointments stay on track.

Major Project Objectives:

1. They will review and become familiarized with the Class B1 Protocol review and suggest protocol improvements
2. Migrate the tracking spreadsheets into a new platform to improve organization and accountability within the Class B1 process
3. Develop a technical report including an evaluation of the number of Class B1 patients who get evaluated within 120 days of notification

Major Project Impact:

This has a direct impact in regard to increasing the number of new arrivers with overseas abnormal chest x-ray's getting evaluated. This in turn has the potential to prevent active cases in King County.

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Additional Project #1 Title: Epidemiology Surveillance Dashboard Development

Project #1 Type: Major Project

Project #1 Description:

The TB Program desires to build out novel centralized dashboards on Power BI to track sociodemographic factors of cases, treatment outcomes of cases, contact care cascade, surveillance of infectivity amongst cases & patients referred to outside providers that complete LTBI treatment. These novel dashboards hope to give users the ability to filter on different variables of interest without requesting separate data requests. The CSTE fellow would work closely with the primary mentor on building out the data structure, dashboard development and user experience of dashboards.

Project #1 Objectives and Expected Deliverables:

Five centralized dashboards that are efficient and give the user the ability to answer a data related question by themselves, without having to specifically request the question of interest.

Project #1 Impact:

Helping TB Program leadership and division leadership make data driven decisions, and inform TB Program staff on data trends.

Please Describe the Fellow's Anticipated Role in Preparedness and Response Efforts – Include Activities and Time Allocation (Required Competency of Fellowship)

The primary mentor is the lead in regard to community-based investigations within the program. The CSTE fellow would be expected to be a backup to the Epidemiologist I in the Epi Unit based on need. The program averages about 1-2 community-based investigations a month. The fellow is expected to allocate 15-25% of their total time to this body of work as needed. These responsibilities include communicating between public health and community organizations, data analysis, organizing a screening event and tracking dispositions of patients following the TB care cascade.

Please Describe the Fellow's Anticipated Role in Cluster and Outbreak Investigations – Include Activities and Time Allocation (Required Competency of Fellowship)

In the past two years, the TB Program has had three major outbreak investigations. If an outbreak investigation is to take place, the fellow would work closely with the primary mentor to ensure the TB Program is up to date with situation reports and helping the program decide on the appropriate public health response. If there is a major outbreak response, there would need to be a re-prioritization of tasks as this is expected to take another 15-25% of their time. If a cluster or outbreak situation occurs, the fellow is expected to play a significant role in the response activities, including maintaining a situation report, mapping epidemiological links between cases, tracking cases, contacts and their dispositions and aiding in coordinating community-based investigations and screening events.

There are also instances where there are other outbreaks within other programs. The fellow would be available to assist in those response efforts (e.g., measles outbreak).