ID: 42228388
Infectious Diseases - HAI - Host Site Description
Dallas County Health and Human Services

Assignment Location: Dallas, US-TX
Dallas County Health and Human Services
Acute Communicable Disease Epidemiology

Primary Mentor: Saad Zaheer, MD, MPH, MSPH, FACE
Chief Epidemiologist
Dallas County Health and Human Services

Secondary Mentor: Vikki Yeatts, MSN, RN
Lead Epidemiology Surveillance Coordinator
Dallas County Health and Human Services

Work Environment
Hybrid

Assignment Description

The CSTE Fellow will be working in the Acute Communicable Disease Epidemiology Division of Dallas County Health and Human Services on the HAI Team. The HAI team consists of 4 full-time employees. Fellows will spend most of their time investigating reportable MDROs, although clusters and outbreaks of non-reportable HAIs are investigated as needed. Investigators will do CRE, CP-CRE, and C. auris investigations, including conducting ICARs, Point Prevalence Surveys, and following up as needed. The Fellow will communicate with a wide variety of healthcare facilities daily and educate them on how to implement infection prevention and control measures within their facilities. Dallas County is in the process of building up our HAI program, so some time will also be dedicated to program development, which includes writing up SOPs, developing educational tools for various healthcare settings, and initiating a preventative ICAR program.

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

Dallas County HHS utilizes SAS, R, ArcGIS, ESSENCE, and Salesforce.

Projects

Surveillance Activity Title: Assist with building Dallas County's MDRO surveillance program

Surveillance Activity Description:
This is an opportunity for a fellow with training in disease surveillance to really shine and play an integral part in building something new. We are in the process of developing our own, independent electronic HAI investigation and surveillance tool in Salesforce. This tool will aid in investigating cases, and it will produce data that we plan to use to target our interventions.

Surveillance Activity Objectives:
By the end of the fellowship, we expect to have a fully operational, comprehensive electronic HAI investigation and documentation tool that produces actionable data. The fellow will assist in identifying key data points, compiling data from various platforms and sources, and integrating needed fields and desired reports into our new electronic investigation and surveillance tool in Salesforce.

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Surveillance Activity Impact:
We expect to see a decrease in reportable MDROs and other HAIs as a result of our targeted IPC interventions (or an increase, as a result of improved surveillance that we can use to target interventions).

Surveillance System Evaluation Title: Ensure the Salesforce investigation and surveillance tool is efficient and valuable to the HAI team through quality assurance checks throughout the building and implementation process.

Surveillance System Evaluation Description:
The biggest check on this tool will be regular validation between our internal line list, Salesforce, and the state database, NEDSS. As we transition to Salesforce, it will be important to confirm that information is not being lost, excluded, or altered. The fellow will regularly monitor this data to catch anything that needs to be corrected. Additionally, we want to ensure that investigations are being started and completed in a timely manner, hopefully increasing in speed, and with attention to detail. As the tool's functionality expands, we will monitor progress on speed and quality of investigations.

Surveillance System Objectives:
We expect to have actionable data to demonstrate the benefits of using this system. The fellow will be responsible for regular quality assurance checks on a scheduled interval. The goal is to ensure that the implementation process of the Salesforce tool goes smoothly, and any corrections necessary can be made as identified.

Surveillance System Impact:
Through the development of this Salesforce tool and regular updates to ensure productivity, the HAI team will have more time available for building and maintaining relationships with stakeholders and focusing on preventive work rather than solely response-driven.

Major Project Title: Developing a Comprehensive HAI Program at Dallas County Health and Human Services

Major Project Description:
We are aiming to develop an HAI program modeled after the Healthcare Safety Unit at the Texas Department of State Health Services. Our goal is to slow the spread of HAIs and MDROs through targeted public health interventions. We chose short, medium, and long-term goals for this program. Program goals include developing SOPs, completing investigations, participating in the construction of our investigation and analysis program, participating in professional organizations, performing preventative and response-driven on-site ICARs, and starting a community education program for our local facilities that may not have an infection preventionist. We have accomplished many of our short-term goals. We plan to use the combined experiences of the fellowship mentors to work in collaboration with our HAI counterparts throughout the state.

Major Project Objectives:
The end goal of this project is to produce a structured program and protocol that can be used for decades to come in Dallas County. The program will function to help us slow the spread of reportable MDROs in Dallas County. One of our long-term goals is to publish a paper on program development so that other areas may benefit from hearing about our work.

Major Project Impact:
The incidence of HAIs will decrease as a result of targeted public health interventions, which will be driven by the data that we collect as part of this program.

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Additional Project #1 Title: HAI data analysis and data visualization
Project #1 Type: Surveillance Activity

Project #1 Description:
The fellow will utilize data analysis and data visualization to interpret complex data relationships and provide data-driven recommendations and insights to guide HAI interventions.

Project #1 Objectives and Expected Deliverables:
The objective is to identify any gaps and strengthen the HAI response in Dallas County through analyzing and visualizing relevant data. Deliverables will be created through various data visualization tools and used to inform DCHHS' response to HAIs.

Project #1 Impact:
As a result of this activity, it is expected that community partners will be more informed and better prepared to address HAIs within their facilities and decrease their transmission.

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

The fellow will participate in COVID preparedness and response efforts only as is relates to healthcare associated cases only, and even then, they would not do primary investigating in this area. We have another department dedicated to COVID investigations in LTCFs, which is where we see most outbreaks. The Applied Epidemiology Fellow will need to be aware of COVID preparedness and response, and be able to speak to them as part of a holistic infection prevention and control practice, but very little, if any will be dedicated primarily to COVID. This Fellow's emergency preparedness and outbreak response efforts will be focused on MDRO and other HAIs. Activities include confirming and defining the outbreak, alerting key partners, case finding, maintaining a line list, creating an epi curve, searching for the source and/or propagation methods of the outbreak, implementing interventions, evaluating interventions for effectiveness, and writing a follow-up report. Time spent on these activities will depend on the number of outbreaks we have, which are usually 2-5 times a month.

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

MDRO outbreak investigation activities, include confirming and defining the outbreak, alerting key partners, case finding, maintaining a line list, creating an epi curve, searching for the source and/or propagation methods of the outbreak, implementing interventions, evaluating interventions for effectiveness, and writing a follow-up report. Time spent on these activities will depend on the number of outbreaks we have, which are usually 2-5 times MDRO outbreaks a month.

Please Describe the Fellow's Anticipated Role in the COVID-19 Response – Include Activities and Time Allocation

The Applied Epidemiology Fellow will need to be aware of COVID preparedness and response, and be able to speak to them as part of a holistic infection prevention and control practice, but very little, if any will be dedicated primarily to COVID.

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Please Describe Opportunities for Fellows to Work in Health Equity as well as Incorporating Diversity, Equity, and Inclusion into their Work

One of the Dallas County HAI team's goals is to create/host educational content for our healthcare stakeholders, and even healthcare personnel outside of Dallas County, to listen to. These would be fairly short, intended to be consumed during monthly infection control trainings with staff, or even during shift change huddles. A variety of ideas for topics have been discussed, including the role of health equity in HAIs. Staff members of healthcare facilities can work towards more equitable outcomes of target populations, and Dallas County's role would be to provide education and help facilities set and reach goals. Through our close relationship with facility leadership, the HAI team, including the fellow, can use this opportunity to encourage leadership buy in of the importance of health equity from an HAI perspective.

Additionally, Dallas County's HAI team works with all healthcare facilities in the county, regardless of where their funding comes from. Our stakeholders have patients from all ranges of income levels, including those receiving Medicare and Medicaid benefits. This allows us the opportunity to provide extra resources to facilities primarily caring for patients at an economic disadvantage to ensure more equitable care.