

ID: 72806303

Infectious Diseases - Host Site Description

DeKalb Public Health

Assignment Location: Decatur, US-GA
DeKalb Public Health
Epidemiology

Primary Mentor: Calvin Patimeteeporn, MSPH
Chief Epidemiologist
DeKalb Public Health

Secondary Mentor: Julia Knebl Sordyl, MPH
Epidemiologist II
DeKalb Public Health

Work Environment

Hybrid

Assignment Description

The CSTE AEF fellow will assume the roles and responsibilities of an Epidemiologist 1 within the Office of Epidemiology at DeKalb Public Health and will be integrated into the team's workflow. In addition to the fellow's dedicated projects outlined below, anticipated day-to-day activities the fellow will be assigned include:

- Case investigation/management and outbreak investigations for enteric diseases, animal bites/rabies referrals, and syndromic surveillance
- Leading teams to complete tasks related to case investigation and contact tracing for notifiable diseases
- Surveillance system data entry, cleaning, and management
- Data analysis
- Preparing regular epidemiologic reports
- Involvement in Incident Command Structure (ICS) meetings, training and tabletop exercises
- Creating and presenting educational materials/presentations for both internal and external audiences
- Fielding and answering epidemiology-related inquiries from the general public

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

Georgia's State Electronic Notifiable Disease Surveillance System (SendSS) is the Epidemiology team's central hub for disease follow up work. We also use the Georgia Registry of Immunization Transactions and Services (GRITS) and Georgia's syndromic surveillance system, as well as public data sources such as the U.S. Census and Georgia's Online Analytical Statistical Information System (OASIS).

The Office of Epidemiology has access to R Studio, ArcGIS, Tableau, Epi Info, SatScan, and Excel.

Projects

Surveillance Activity Title: Syndromic Surveillance in DeKalb County, GA

Surveillance Activity Description:

Syndromic surveillance is an early warning system to detect unusually high levels of illness and determine if public health responses are warranted. The fellow will receive de-identified syndromic surveillance alerts from emergency

departments and healthcare facilities via the GA Department of Public Health (DPH). These alerts may pertain to notifiable diseases including COVID-19, clusters of disease (food and non-food related), institutional settings, travel-related illness or other symptom-based notifications. The fellow will communicate with healthcare facilities to gather and analyze appropriate health data. Using these data, the fellow will determine if public health follow up actions are required and discuss/implement these actions with mentors and the rest of the Epidemiology team. In addition, the fellow will develop protocols for the management of clusters/outbreaks detected through syndromic surveillance in collaboration with other DKPH divisions, including Environmental Health, Emergency Preparedness, and Clinical Services.

Surveillance Activity Objectives:

Objectives:

- To utilize the syndromic surveillance system for early detection in DeKalb County and interpret surveillance data
- To collect appropriate health data from sources such as case interviews, medical records, laboratory reports, and pathology reports
- To determine public health follow up for notifiable diseases and clusters/outbreak
- To collaborate with DPH and other DKPH divisions on cluster/outbreak management
- To identify possible areas of improvement for the existing syndromic surveillance system in DeKalb County

Expected Deliverables:

- Documentation of follow up for syndromic surveillance alerts within 48 hours (24 hours for priority notifications)
- Protocol for cluster/outbreak response detected through syndromic surveillance in collaboration with the Epidemiology team and other programs and divisions within DKPH

Surveillance Activity Impact:

Timely follow up with syndromic surveillance alerts will allow for early detection of disease clusters and outbreaks. Protocol development will assist the Office of Epidemiology as a whole to document and streamline existing processes and collaborations with internal and external DKPH partners.

Surveillance System Evaluation Title: Evaluating Animal Bite Surveillance and Rabies Vaccine Referrals in DeKalb County, GA

Surveillance System Evaluation Description:

Animal bites are a reportable condition in DeKalb County, GA are reported via the State Electronic Notifiable Disease Surveillance System (SendSS), and require follow up by DeKalb County Animal Enforcement in collaboration with DKPH Epidemiology. Due to several factors including the numerous agencies and facilities involved in collecting and reporting information about cases, the lack of public and provider knowledge of reporting requirements, as well as the complexity of follow up, there are limitations to this surveillance system and its associated vaccine referral process. The fellow should perform an evaluation of the existing surveillance and referral system, identify its strengths and limitations, and suggest ways that the system and its processes may be improved.

Surveillance System Objectives:

Objectives:

- To evaluate the animal bites surveillance system in DeKalb County, GA and understand the limitations of surveillance data
- To interpret surveillance data
- To identify possible areas of improvement for the existing animal bites surveillance system and rabies vaccine referral process in DeKalb County

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Expected Deliverables:

- Evaluation report on the animal bites surveillance system and rabies vaccine referral process in DeKalb County, GA

Surveillance System Impact:

By identifying limitations and possible areas of improvement and for the current animal bites surveillance system and vaccine referral process, reporting procedures can be modified to reduce reporting delay and facilitate timely follow up and referrals, increasing the likelihood of good health outcomes among those who are involved in animal bite incidents.

Major Project Title: Local Public Health Data Standardization Project in DeKalb County, GA

Major Project Description:

The fellow will join other Epidemiology team members on the Data Standardization Project. During a recent agency-wide strategic plan, DKPH set the goal of improving our data infrastructure, and to use data address healthcare disparities and improve population health outcomes. In service of these goals, the Epidemiology team has engaged in the Data Standardization Project.

We've found that many programs across the agency-such as the refugee health program and the lead poisoning prevention program-have been engaged in work that generates a large volume of data about the health of DeKalb County residents and could be used to inform our agency's work, but have been collecting this data in ways that are not standard, and are difficult to aggregate and analyze. This has created a challenge in identifying our successes and areas where we can serve our community more effectively.

To overcome this, the Epidemiology team has been utilizing a strategic plan format (Strength, Weakness, Opportunities, Threats (SWOT) analyses, key informant interviews, and generating standard operating procedures (SOPs)) to improve programs' data collection methods and protocols. This format involves assessing how each program is currently collecting data, determining what their data needs and goals are, collaboratively establishing new data collection SOPs, creating tools for these new data collection protocols, and training team members on using these data collection tools.

Major Project Objectives:

Objectives:

- The fellow will gain skills in working across the agency with a wide variety of other public health and medical professionals
- Data collection practices across DKPH will be standardized, allowing for more effective analysis of the data that the agency's work yields

Deliverables:

- Updated data collection standard operating procedures for other DKPH programs
- Data collection tools

Major Project Impact:

By standardizing the way that data is collected at DKPH, the agency will better be able to understand the needs of the community that we serve, the impact of our work, and better identify areas that require public health intervention. Through this, we will make progress towards our agency's mission of promoting, protecting, and improving the health and well-being of all DeKalb County residents.

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Additional Project #1 Title: Legionellosis Surveillance Analysis in DeKalb County, GA

Project #1 Type: Major Project

Project #1 Description:

Nationally, the number of legionellosis cases reported has increased in recent years. This trend has been reflected in the number of reported DeKalb County legionellosis cases. Due to the extended length of time that *Legionella pneumophila* can persist in water systems, clusters or associations between cases can be difficult to detect. The fellow will complete an analysis of DeKalb County legionellosis data to examine trends over time. The fellow may create educational materials, like handouts and presentations, to provide information on legionellosis to facilities that could experience legionellosis outbreaks, like long-term care facilities.

Project #1 Objectives and Expected Deliverables:

Objectives:

- Identify spatial, temporal, and demographic trends in reported legionellosis cases in DeKalb County.
- Work with DKPH's Office of Communication and Media Relations to create and share educational materials with facilities at risk of legionellosis outbreaks.

Deliverables:

- An analysis of recent legionellosis cases reported in DeKalb County, including spatial analysis
- Legionellosis educational materials, such as handouts and presentations, geared toward staff at facilities at elevated risk for a legionellosis outbreak

Project #1 Impact:

By identifying patterns in reported legionellosis cases, DKPH can tailor public health interventions and education to suit the identified priority populations.

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

The CSTE fellow will be included as an integral part of the DKPH Incident Command System (ICS) structure (10-15% time allocation), which is mobilized to respond to emergent public health threats, such as mpox or the COVID-19 pandemic. In this role, the fellow will be directly working and communicating with DKPH Emergency Preparedness, as well as actively participating in outreach and response activities (tabletop exercises, surge capacity, etc.). As with other Epidemiologist 1 level staff, the fellow will be expected to complete FEMA's Emergency Management Institute training series on ICS structure, National Incident Management System, and National Response Framework). As part of DKPH's response to outbreaks, the fellow may be called to staff a point of dispensing site for testing/vaccinations or to provide epidemiological assistance at designated events (e.g. mass vaccination events, shelters, etc.). Furthermore, the fellow will undertake data collection or analysis for evaluating emergency preparedness response efforts, which will be presented at after-action reviews and help inform improvements for future responses.

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

The CSTE fellow will be heavily involved in Cluster and Outbreak investigations (25% time allocation). At DKPH, fellows have previously been very involved and have even led investigations into clusters of COVID-19 and other illnesses reported by facilities, including schools, daycares, long-term care facilities, businesses, or government facilities.

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In addition, the fellow will assist in investigating clusters of illness reported through the Georgia Syndromic Surveillance system and follow up with healthcare providers and infection control preventionists regarding clusters of similar illnesses.

The fellow will also be involved in investigating clusters or outbreaks of foodborne illnesses in the community. In collaboration with DKPH Environmental Health, the fellow will interview cases of enteric illness and ensure that sources of contamination or disease transmission are identified in a timely manner.