

Infectious Disease- HAI

Assignment Description:

Recent legislation in Maine requires the reporting of hospital-specific Healthcare acquired infections (HAI) data to State agencies. Healthcare and public health partners have established a collaboration to address healthcare-associated infections, the Maine Infection Prevention Collaborative. Through the collaborative, Maine hospitals have initiated HAI reporting through the National Healthcare Safety Network (NHSN). Maine CDC Division of Infectious Disease is partnering with the Maine Infection Prevention Collaborative (MIPC) to develop and enhance the State's workforce, training, and tools to rapidly build an HAI prevention infrastructure.

Maine is implementing all three HAI prevention activities:

- a. Develop and implement the Maine HAI Prevention and Surveillance Plan that outlines HAI prevention targets and supporting surveillance activities;
- b. Develop and implement HAI reporting and monitoring with Maine hospitals using NHSN; and
- c. Initiate prevention initiatives with Maine hospitals through the collaboration of MIPC.

Maine has established success in partnering with CSTE and CDC in providing professional development opportunities to EIS Officers, Public Health Prevention Specialists, and CSTE fellows. A fellow will complete his/her time in Maine with an excellent working knowledge of field epidemiology, surveillance, and state public health practice. This is a wonderful opportunity to be a part of a newly established public health program and be actively involved in developing health policy.

The health department is small enough to offer a CSTE fellow a high level of responsibility with minimal bureaucracy. A fellow can expect to have daily interactions with epidemiologists, program staff, and the public health community throughout the state. Maine has a centralized public health system with no local public health departments and outbreak response activities are coordinated centrally.

The Division of Infectious Disease has a staff of >50 persons including three doctoral- and 12 masters-level epidemiologists. HAI Epidemiology is provided by one epidemiologist, with support from the HAI Coordinator and State Epidemiologist. Data available for analysis include the Maine-based National Electronic Disease Surveillance System which captures notifiable disease data, inpatient and outpatient hospitalization data sets, and vital statistics.

Living Environment:

Augusta is a small city in central (rural) Maine. Waterville (Colby College), Brunswick (Bowdoin College), Lewiston (Bates College), and Portland are within an hour drive.

Cultural and Recreational Assets:

The state is known for its natural beauty. The ocean, lakes, and mountains provide unlimited outdoor opportunities year round. Boston is 3 hours south.

Opportunity for Partner's Employment:

Good, especially for positions in education and health.

Day-to-Day Activities:

Daily activities would comprise of planned epidemiological studies, developing and integrating prevention initiatives, and acute outbreak investigations. Other routine activities offer opportunity for the fellow to partner with Division of Infection Disease (DID) epidemiologists and learn about the epidemiology work occurring across the division. These routine activities include:

- Participate in daily epidemiology meetings with DID epidemiologists where current investigations and outbreaks are discussed.
- Participate in weekly epidemiology case review with medical and central epidemiologists to review procedures utilized for infectious disease case investigations and monitor trends.
- Participate in monthly epidemiology symposia with medical, central and field epidemiologists.
- Participate in monthly meetings of the Maine Infection Prevention Collaborative and quarterly meetings of the Maine Association of Professionals in Infection Control.
- Participate in daily Epi-on-call and after hours on call (estimated at once every 12 weeks) to respond to urgent requests for healthcare-associated infections surveillance and reporting information.

Potential Projects:

The HAI CSTE fellow will play a substantial role in determining the projects he/she pursues. Potential projects, opportunities for data analysis, outbreak field investigations, and collaborating with DID epidemiologists include the following:

-Assessing long term care facility needs for prevention and surveillance of healthcare acquired infections. Organizing and participating in educational forums and assisting long term care facilities to report HAIs in a uniform manner.

-Assessing dialysis centers resources and aiding them in enrolling in NHSN for reporting healthcare acquired infections. Developing relationships between dialysis centers, the Maine CDC, and the End Stage Renal Disease Network of New England. Develop surveillance processes of HAIs in Maine dialysis centers.

- Analysis of methicillin-resistant *Staphylococcus aureus* (MRSA) data gathered through National Healthcare Safety Network (NHSN) as part of new legislation mandating reporting of hospital acquired infections. Compare incidence of invasive MRSA infections reported to Maine CDC with those identified through hospital discharge records

A fellow would have the opportunity to participate on the outbreak team at any time and occasionally to act as the outbreak lead coordinator. Outbreak reports that are suspected to be healthcare-associated would be assigned to the Healthcare-associated Infections Program and it is likely the fellow would play a role in responding.

Opportunities for program or surveillance system evaluation include:

-Assess hospital electronic medical record systems' capacity to automate data exchanges with existing state surveillance system for infectious diseases (NBS) or national surveillance system for healthcare-associated infections (NHSN)

-Evaluate hospital-based hand hygiene campaigns as a contributing factor for prevention healthcare-associated infections

Emergency Preparedness Role:

The Division of Infectious Disease is the lead response unit for surveillance, epidemiology, and disease control activities related to emergency preparedness and response. A fellow would contribute to this work as part of the epidemiology team and work under the direction of the State Epidemiologist.

Assignment Location: Augusta, Maine

Primary Mentor: Stephen Sears, MD, MPH
State Epidemiologist
Maine CDC

Secondary Mentor: Peg Shore, MT (ASCP), MS, Ph.D. candidate
Healthcare Acquired Infection Prevention Coordinator
Maine CDC

