

Infectious Disease- HAI

Recent legislation in Maine requires the reporting of hospital-specific 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 pilot projects to institute HAI reporting through the National Healthcare Safety Network (NHSN). Maine CDC Division of Infectious Disease proposes to partner with the Maine Infection Prevention Collaborative (MIPC) to develop and enhance the State's workforce, training, and tools needed to rapidly build an HAI prevention infrastructure. Maine has established some HAI prevention activities, and with the support of this supplement, Maine can further develop these initial efforts.

Maine intends to implement all three HAI prevention activities:

- a. Develop 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 participating hospitals using NHSN; and
- c. Initiate prevention initiatives among participating hospitals through the collaboration of MIPC.

Maine CDC Division of Infectious Disease will accomplish the above stated goals in partnership with MIPC. Development and strategic planning of the work will occur through this multidisciplinary advisory group. Implementation and monitoring of activities will be coordinated by Maine CDC. 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!

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. Recent topics include the on-going outbreak of H1N1 influenza and surveillance and mitigation activities.

- Participate in monthly meetings of the Maine Infection Prevention Collaborative and Maine Association of Professionals in Infection Control meetings.
- 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:

- 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
 - Describe the risk factors for acute hepatitis C infection
 - Describe enteric disease infections associated with animal exposures
- Investigations of infectious disease outbreaks are coordinated through a team of epidemiologists.

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 central 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
- Evaluate statewide hepatitis B surveillance

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 epi team and under the direction of the State Epidemiologist.

Assignment Location: Augusta, Maine

Primary Mentor: Stephen Sears, MD
State Epidemiologist
Maine CDC

Secondary Mentor: Anne Sites, MPH
Senior Health Program Manager Infectious Disease Epidemiology
Maine CDC