

## **Subject Area: Infectious Disease-HAI**

### **Assignment Description**

The Epidemiology Section of the NC Division of Public Health (DPH) is committed to providing an exceptional, well-rounded experience for a CSTE/CDC Applied Epidemiology Fellow. The Epidemiology Section Communicable Disease Branch has a strong history of hosting CDC Epidemic Intelligence Service Officers, UNC-Chapel Hill public health students, and student interns. This assignment will allow a Fellow to develop applied epidemiology competencies under the guidance of experienced mentors by engaging in both narrowly-focused and cross-cutting projects in Healthcare-Associated Infections, with opportunities to easily gain experience in communicable disease and public health preparedness, as well as injury epidemiology environmental public health as desired.

Mentors will work with the Fellow to choose projects that fit with the Fellow's interests, fulfill the competency areas, and provide solid broad-based experience in applied epidemiology. These projects will involve the Fellow with staff across the Section, DPH, and from other states and CDC. Projects provide opportunities to present at national/state conferences and submit manuscripts to peer-reviewed journals. The Fellow will present work to state advisory boards and will be mentored in handling data/technical assistance requests (e.g., from public, legislators, and media). Placement within this specific venue (HAI) will allow the Fellow opportunities to review and propose public health policy, and observe how epidemiologic and other surveillance data can help drive these policies.

All mentors have 10+ years of experience in applied epidemiology and are committed to ensuring an exceptional experience for an Applied Epidemiology Fellow.

### **Day-to-Day Activities**

Day-to-day activities will primarily depend on the nature of the project and experience of the Fellow. As this Fellow will be housed in the Healthcare-associated Infections Prevention Program, the majority of the initial time will be spent acclimating to healthcare associated infections data and reports. Initially, daily activities will be strongly linked to one or more of the mentors. As the Fellow develops capacity, more independent oriented activities will predominate. As new projects are initiated, the mentors will work with the Fellow to get oriented and will check in to ensure progress toward reaching competencies is made. Communicating with past and current EIS Fellows might illuminate anticipated daily activities within the Communicable Disease Branch over the course of two years.

### **Potential Projects**

Surveillance Evaluation Projects

- Evaluate NC hospital data from National Healthcare Safety Network (NHSN) to identify trends and use data to guide action;
- Evaluate Infection Prevention Breaches in Adult Care Homes to assess impact of public policy (implemented July 1, 2011);

#### Other Projects

- Establishing a state Standardized Infection Ratio (SIR) based on NC HAI data;
- Develop HAI validation protocol based on CDC Toolkit;
- Develop evaluation protocol of DPH HAI program;
- Use of HAI hospital data to drive or support public health policy;
- Develop antimicrobial resistance program;
- Reviewing and performing analysis of HAI co-morbidities;
- Contribute to HAI surveillance and prevention activities in the state;
- Update 5-year State HAI Plan;
- Use of GIS applications and other data to map demographic data to assess disparities in HAI rate and outcomes;
- Address Healthy NC 2020 objectives.

Several other options are also possible and can be arranged as appropriate.

#### **Preparedness Role**

The fellow will participate in outbreak investigations, which are common in North Carolina. The Public Health Preparedness and Response Branch is within the Epidemiology Section and co-located with the Communicable Disease Branch. If the Public Health Coordination Center is opened, requests will be made throughout DPH for volunteers to assist in response efforts.

Section epidemiologists and fellows, including EIS and CSTE fellows, have worked in the Public Health Coordination Center during hurricanes, floods, H1N1, food-borne outbreaks and other public health response events. Roles, tasks and length of detail will be negotiated with the Fellow. The previous EIS Fellow served as the Epidemiology and Surveillance Lead for the 2012 Democratic National Convention held in Charlotte.

An outbreak response curriculum has been developed by the secondary mentor; the Fellow will receive this training and will be actively engaged in outbreak response and field investigations as appropriate. In addition, the Fellow will be trained in the FEMA Incident Command System.

Assignment Location: North Carolina Department of Health and Human Services  
Raleigh, North Carolina

Primary Mentor: Jean-Marie Maillard, MD, MSc

Medical Director, Communicable Disease Branch

**Secondary Mentor:**

Jennifer MacFarquhar, RN, BSN, MPH  
Career Epidemiology Field Officer (CEFO)