Infectious Disease-HAI

Assignment Description

The New York City Department of Health and Mental Hygiene is a large and well-staffed Department with expertise in emergency management, program administration, surveillance and epidemiology. The Department has jurisdiction over 8 million (43% of the population of the state of NY) ethnically and socio-economically diverse people living in a 321 square mile area (the highest population density in the US Because of the cultural diversity of NYC this will involve working with many different communities and ethnic groups. Additionally, every effort will be made to provide the fellow with opportunities to observe or work with other Bureaus that interact with the BCD to better understand the workings of a large local health department. Although the position will be primarily focused on healthcare-associated infections, the fellow will also participate in the general activities of the BCD including attending Outbreak Meeting every Tuesday, and serving on the "Research Scientist of the Week" rotation to handle whatever public health issues arise that week in the bureau and analyzing the routine surveillance data to detect possible clusters. The fellow will also have the opportunity to work on other projects as they interest the fellow

Day-to- Day Activities

1. The Fellow will be assigned to the Enteric, Waterborne and Hepatitis Unit and will report to the unit's medical director and the hepatitis team leader. The Fellow will meet weekly with one or both mentors. S/he will have independent analytic, surveillance and educational projects to work on daily (described below). All together there will be an average of 1-2 meetings per week. The Fellow will most likely be off site, e.g., in the field or at a conference, 1-2 times per month.

2. The Fellow will investigate reports of healthcare associated infections, including viral hepatitis or other pathogens (interviewing clinicians and patients, site inspection, medical chart abstraction, data management, analysis and drafting of final reports or papers). Investigations may result in recommendations for large scale testing; the Fellow would assist in arranging notification of affected patients and setting up testing clinics.

3. In addition to work related to healthcare-associated infections, the Fellow will participate in the general activities of the Bureau, including attending weekly outbreak meeting and serving in the Research Scientist of the Week rotation. The Research Scientist of the Week investigates hepatitis A cases and arranges for post-exposure prophylaxis for close contacts, handles whatever public health issues and outbreaks arise that week (e.g., foodborne outbreaks), and participates in the weekly conference call for Health Departments throughout New York State.

4. The Fellow will also work on other projects as they interest him/her, including projects with other parts of the Health Department (e.g., the Public Health Laboratory). As an example, the current CSTE Fellow visited a live poultry market to do education and outreach around salmonellosis prevention.

Potential Projects

1. Chronic hepatitis B and C are major causes of morbidity and mortality. The Fellow would develop a new project to analyze hospital discharge data and/or death certificate data to describe trends over time and to understand potentially preventable contributions to hepatitis B and C morbidity and mortality (e.g., delayed diagnosis, lack of access to treatment).

2. The current CSTE Fellow conducted a survey of Assisted Living Facilities to identify gaps in infection control. The new Fellow would develop, pilot and evaluate a system of outreach to Assisted Living Facilities to address these gaps in infection control (e.g., develop and deliver talks or posters about preventing hepatitis B or C transmission through glucometer sharing).

3. We work closely with local hospitals, in particular, an 800-bed acute care facility with an associated 120-bed orthopedic facility and a 120-bed rehab facilities. The Fellow would develop a new project in collaboration with our Infection Control colleagues at this hospital to look at the reporting process for the new National Healthcare Safety Network, and identify opportunities for improvement.

4. Patients with a positive hepatitis C antibody result are recommended to have nucleic acid testing (NAT), to confirm current infection status. Many patients do not have NAT, however, because of lack of insurance or not following up on referrals. The Fellow would develop a new project to understand this problem better, by investigating a sample of patients reported with positive antibody 12-18 months earlier, determining whether NAT testing had been done, and identifying reasons for not doing NAT testing.

5. Surveillance system evaluation, option 1: There is no specific test for acute hepatitis C, and with 15,000 people newly reported with hepatitis C each year, it is impossible to determine which represent acute illness. Acute hepatitis C infections therefore must be reported by clinicians. The new CSTE Fellow would evaluate our acute hepatitis C surveillance system, identify barriers to clinician reporting, and develop an outreach plan to address these barriers. Improved surveillance for acute hepatitis C would facilitate recognition of healthcare associated cases and clusters.

6. Surveillance system evaluation, option 2: It is essential to estimate the prevalence of chronic hepatitis C in New York City for public health planning purposes. The Fellow would evaluate our chronic hepatitis C surveillance system with a focus on using the surveillance data to develop a prevalence estimate (e.g., adjust surveillance data for outmigration, deaths and undiagnosed cases).

Preparedness Role

The NYC DOHMH has responded to a number of emergencies in the last few years including the regional blackout in 2003 and the massive H1N1 influenza outbreak in Spring 2009. All DOHMH employees are assigned to an Emergency Response Section for purposes of planning for and responding to emergencies. The Fellow will be assigned to the Investigation and Data Section and will participate in all drills and planning meetings. In the event of an emergency, the Fellow will participate in the DOHMH response.

Assignment Location:	New York, NY
Primary Mentor:	Sharon Balter, MD Medical Epidemiologist New York City Department of Health and Mental Hygiene
Secondary Mentor:	Katherine Bornschlegel, MPH Research Scientist New York City Department of Health and Mental Hygiene