Infectious Diseases- Healthcare Associated Infections

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 305 square mile area (the highest population density in the US). Because of the cultural diversity of NYC this assignment will involve working with many different communities, immigrant groups 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, 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 him/her.

Day-to-Day Activities

1) The Fellow will be assigned to the Enteric, Waterborne and Hepatitis Unit and will report to the director of the Viral Hepatitis Surveillance, Prevention and Control Program (Fabienne Laraque) and the hepatitis surveillance team leader (Katie Bornschlegel). 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 2 to 4 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 possible 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) The fellow will also learn to investigate routine (non-HAI) acute and chronic hepatitis B and C cases. This includes collecting laboratory findings, obtaining clinical and epidemiologic information from clinicians, and interviewing patients by phone to obtain information about risk factors, demographics, clinical status and access to health care.
4) In addition to work related to healthcare-associated infections, the Fellow will participate in the general activities of the Bureau, including attending the weekly outbreak meeting and serving in the Research Scientist of the Week (RSOW) rotation. The RSOW is responsible for handling whatever public health issues and outbreaks arise that week (e.g., foodborne outbreaks), and participating in the weekly conference call for Health Departments throughout New York State. The Fellow will also investigate hepatitis A cases and arrange for post-exposure prophylaxis for close contacts as needed.

5) 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, our previous CSTE Fellow visited a live poultry market to do education and outreach around salmonellosis prevention.
6) When possible we will arrange for the fellow to work with the NY State Health Department on investigations of healthcare facilities in the City that are under their jurisdiction (e.g., hospitals and dialysis clinics). In the second year, if the fellow is interested we will arrange an opportunity to shadow an Infection Control Practitioner at a local hospital.

Potential Projects

7) Surveillance system evaluation: In January 2013 we began a new routine system to investigate all newly reported hepatitis C cases aged 21 and under, plus a 50% sample of those aged 22 to 30. Since surveillance for acute hepatitis C is so difficult (usually asymptomatic, no lab test specific for acute infection), surveillance among youth is a good proxy. Describing cases among youth can help better focus DOHMH's primary prevention activities (e.g., harm reduction, drug treatment, and syringe access).
8) Our prior CSTE Fellows surveyed and provided outreach to Assisted Living Facilities on infection control issues. The new fellow would continue with these outreach efforts, giving talks at facilities as needed, sending educational materials, and developing any new materials that are needed.
9) We work closely with local hospitals, in particular, an 800-bed acute care facility in Manhattan. The Fellow would develop a new project in collaboration with our Infection Control colleagues at this hospital. Project would include data analysis and summarizing for oral presentation and/or a written report. Project options include i) identify modifiable risk factors for surgical site infections ii) map infection control data, and iii) incorporate novel molecular techniques, such as DNA sequencing, into the Infection Preventionists' routine workflow.
10) Develop/refine our health department's website and other outreach materials for clinicians on preventing healthcare-associated infections and reporting possible or definite cases. Develop a meeting (e.g., webinar) for gastroenterologists and anesthesiologists to describe prior outbreaks in colonoscopy / endoscopy practices in NYC and elsewhere, inform on safe needle use strategies, and educate on how to identify and report possible healthcare-associated infections. Develop a City Health Information (CHI) Bulletin for primary care and specialist clinicians on safe injection practices.
11) Investigate any healthcare-associated outbreaks that come up during the fellow's time here, as well as other outbreaks as needed.
12) Our Hepatitis team is in the same group as Foodborne/Enterics, and all of our Fellows have the opportunity to investigate a Foodborne outbreak during their time with us. This usually involves restaurant inspection, interviewing foodhandlers, arranging for collection and testing of specimens from foodhandlers, restaurant patrons, and sometimes leftover food, interviewing restaurant patrons to obtain food histories and clinical information, data analysis and writing a final report.
13) In addition, we will work with the fellow on identifying challenging and interesting projects.

Preparedness Role

The NYC DOHMH has responded to a number of emergencies in the last few years including a regional blackout in 2003, a massive H1N1 influenza outbreak in Spring 2009, and the hurricanes in 2011 and 2012. In 2013 we ran 3 massive hepatitis A vaccination clinics (PODs) for patrons of restaurants/stores where hepatitis A occurred among staff, vaccinating over 5,000 persons. 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. Current and past Fellows have worked hepatitis A PODs and staffed hurricane shelters during Hurricane Sandy.

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