Infectious Disease-HAI

Information about the program area:

The New York City Department of Health and Mental Hygiene (NYC DOHMH) is a large and well-staffed Department with expertise in infectious disease, environmental health, chronic disease and injury surveillance and epidemiology; emergency management and program administration. We are the primary public health agency for over 8 million ethnically and socio-economically diverse people in 321 square miles (the highest population density in the US). NYC has been the site of numerous healthcare-associated outbreaks including 4 large outbreaks of hepatitis C and/or B in outpatient facilities in the last seven years, a 2008 outbreak of Klebsiella pneumoniae in a pain clinic, and a recent Listeria monocytogenes outbreak in a hospital. The majority of our healthcare-associated outbreak investigations relate to hepatitis B and C in the outpatient setting, an area for which there are fewer surveillance systems and little oversight.

The Fellow's anticipated day-to-day activities:

- 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. S/he will have his/her own analytic, surveillance and educational projects to work on daily (described below).
- Although the position will be primarily focused on healthcare-associated infections, the fellow will also participate in the general activities of BCD, including attending weekly outbreak meeting and serving in the rotation as Research Scientist of the Week to handle whatever public health issues arise that week in the bureau and analyzing the routine surveillance data to detect possible clusters.
- In addition to the projects below, the fellow will have the opportunity to work on other projects as they interest him/her or relate to hepatitis or hospital acquired infections in BCD or other Bureaus which may include projects working with the Public Health Laboratory or the Bureau of STD.
- Examples of potential projects that demonstrate opportunities for data analysis, outbreak field investigations, and opportunities to work on interdisciplinary teams.

These projects include, but are not limited to, the following:

- The fellow will be involved in investigation of reports of healthcare associated infections, including viral hepatitis or other pathogens. Such investigations may involve interviewing both healthcare providers and patients, site inspection, chart abstraction, data management and analysis and drafting of final reports and/or papers. Outbreak investigations may result in recommendations for large scale testing which we do in conjunction with the Bureau of STD.

- The fellow would assist in setting up such testing clinics and arranging notification of affected patients.
- The fellow would also be involved in developing a NYC Tool Kit for investigation of suspected healthcare-associated outbreaks in outpatient facilities. While the Bureau has been involved in efforts with NACCHO and CDC to develop a national toolkit, there is a need for a more local toolkit.
- Many outbreaks in NYC have been related to the use of multi-patient vials or improper use of single patient vials frequently related to outpatient anesthesia. We are interested in surveying anesthesiologists on knowledge, attitudes and practices related to use of medication vials for multiple patients. The fellow would design and implement the survey and analyze and report the results.
- The fellow will work with our Healthcare Emergency Preparedness Unit to do outreach to assisted living facilities for geriatric patients around the risk of hepatitis outbreaks when using shared glucometers.

Program or surveillance system evaluation component:

- The majority of healthcare associated infections investigated in NYC are hepatitis B and C infections. There is no specific test for acute hepatitis C however and with 15,000 new reports of hepatitis C a year it is not possible to interview all newly reported cases to determine which represent acute illness. Acute hepatitis C infections therefore must be reported by clinicians. The new CSTE fellow will be involved in developing educational and outreach materials for providers to improve our surveillance including outreach to training programs on the importance of reporting.
- The fellow will also work on activities to help raise awareness among providers about prevention of healthcare associated infections.
- The CSTE fellow may work with DOHMH's Primary Care Information Program (a project to help implement electronic medical record sytsems in primary care settings) to see whether or not prompting through electronic records improves acute hepatitis C reporting.
- Develop methods to estimate the number of acute cases of hepatitis C in NYC and to use reports of newly reported chronic cases of hepatitis C to develop a prevalence estimate for chronic hepatitis C in NYC.

Role of the fellow in State Emergency Preparedness plan:

The NYCDOHMH has responded to a number of citywide and national emergencies in the last few years including the initial outbreak of West Nile virus in 1999, the response to the terrorist attacks and anthrax investigation in 2001, the Citywide blackout in August, 2003, and providing prophylaxis against

hepatitis A to patrons of a NYC bar in 2008. All DOHMH employees are assigned to an Emergency Response Section for purposes of planning for and responding to emergencies. The fellow would be assigned to the Epidemiology and Surveillance Section's Epi and Data Unit and would expected to participate in the DOHMH response in the event of an emergency and in all drills and meetings required by the unit.

Assignment Location:	New York City, New York
Primary Mentor:	Sharon Balter, MD Director, Waterborne and Enteric Disease and Hepatitis Unit Bureau of Communicable Disease New York City Department of Health and Mental Hygiene
Secondary Mentor:	Katherine Bornschlegel, MPH Research Scientist Bureau of Communicable Disease New York City Department of Health and Mental Hygiene