

The New York City Department of Health and Mental Hygiene (DOHMH) is the primary public health agency for the largest, most diverse urban area in the United States. The high population density, wide range of ethnicities and social backgrounds and large number of immigrants and visitors makes for many public health challenges. Over the past several years, DOHMH has been in the forefront of addressing many public health issues on the local level, ranging from chronic health concerns (tobacco use), to emergency response (the anthrax attacks in 2001) and emerging infections (West Nile Virus in 1999). We would like a CSTE fellow to join us in addressing the increasing problem of community associated antimicrobial resistant bacterial infections.

The fellow would work in the Bureau of Communicable Disease (BCD), one of the seven bureaus located within the Division of Disease Control. The Bureau is lead by assistant commissioner Marci Layton, MD, and includes over 70 staff comprised of medical epidemiologists, research scientists, nurses, a health educator, a public health veterinarian and support staff. BCD's primary mission is to conduct the surveillance of over 60 reportable infectious diseases, investigate outbreaks, implement control measures and track emerging infectious diseases. As a result, BCD is a busy place—receiving over 80,000 reports of infectious diseases and investigating approximately 50 outbreaks annually. Other BCD activities include maintaining a syndromic surveillance system that analyzes daily data feeds, and enhancing the emergency preparedness of healthcare facilities located within NYC with trainings, protocol development and exercises. DOHMH offers many educational opportunities, including regular Grand Rounds, research seminars, and trainings. The fellow would join a collegial group in this busy and dynamic environment to help address the emergence of antimicrobial resistant bacteria in the community setting.

Community-associated antimicrobial resistant bacteria are increasingly regarded as a public health threat. Certain conditions within New York City, such as high population density, the large number of healthcare facilities and the availability of antibiotics without a prescription within certain communities, likely enhance the emergence of antimicrobial resistance. BCD has received an increasing number of anecdotal reports from community providers about infections caused by resistant bacteria, especially methicillin-resistant *Staphylococcus aureus* (MRSA). The fellow would assist BCD to detect and respond to community-associated antimicrobial resistant bacteria by:

1. Enhancing the existing surveillance system for *Streptococcus pneumoniae*
2. Helping to establish a surveillance system for community-associated MRSA
3. Investigating unusual cases or clusters disease
4. Assisting with a provider and public education campaign

The fellow would join BCD's General Surveillance Program to work on these issues. Day to day activities would include the following:

Community-acquired MRSA

1. Evaluation of existing paper-based, sentinel site surveillance system
2. Assist with the establishment of an electronic surveillance system
3. Analyze and summarize the data in an annual report

NYC-Phillips

4. Presentation of the surveillance data to reporters (e.g. laboratories and providers) and interested parties
5. Investigate case reports and apparent clusters of infection
6. Work with public health educator to review existing antimicrobial resistance educational materials targeting the public and health care providers
7. Work with the Bureau of Public Health Laboratory to characterize isolates, if needed
8. Assist with an ongoing investigation studying the epidemiology of community acquired infections

Streptococcus pneumoniae Surveillance

1. Evaluation and improvement of current surveillance system
2. Preparing regular reports for providers and laboratories summarizing surveillance trends
3. Investigating clusters or outbreaks

Other BCD activities

1. Participate in the daily functioning of the Bureau by joining the rotation of research scientists that assist with outbreak investigations and attending all routine meetings, including the weekly outbreak meeting
2. Assist in other investigations conducted by the bureau as needed
3. Attend internal working surveillance meetings, including monthly general surveillance meeting, syndromic surveillance meeting and electronic laboratory reporting meetings

The fellow will be integrated into DOHMH's emergency response structure, which is based on the Incident Management System (IMS). She or he will be assigned to the Surveillance and Epidemiology section and will participate in planning or emergency response activities, as needed.

Assignment Location: New York City, NY

Primary Mentor: Michael Phillips, MD
Director of General Surveillance Program

Advanced Degree: MD, Dartmouth Medical School (1992)

Secondary Mentor: Don Weiss, MD, MPH
Director of Surveillance

Advanced Degrees: MD, University of Medicine and Dentistry of New Jersey (1986)
MPH, St. Louis University School of Public Health (1996)