

Infectious Disease

The New York City Department of Health and Mental Hygiene (DOHMH) is a demonstrated leader in public health policy in the United States. DOHMH has over 6,000 employees to serve a diverse population of over 8 million people. Nationally, the department is frequently on the forefront of responding to emerging health threats, innovations in public health and surveillance programmatic intervention.

The fellow will be assigned to the Bureau of Immunization in the Division of Disease Control. The Bureau has over 160 employees and operates from 1 Central Office, 4 field offices and 6 walk-in immunization clinics. The Bureau's mission is to prevent vaccine-preventable diseases through immunization across the lifespan. The Bureau is organized in several programmatic units including: surveillance, prevention of perinatal hepatitis B infection, bioterrorism and emergency preparedness, clinic operations, promotion of childhood and adolescent immunization, adult immunization, monitoring of compliance with school immunization requirements, distribution of public purchased vaccine through the Vaccines for Children Program, and the Citywide Immunization Registry. The fellow would have the opportunity to gain experience and exposure to a range of public health functions including policy development, programmatic interventions, provider support and community outreach. The fellow would also participate in DOHMH educational meetings, grand rounds and lectures as well as the National Immunization Conference held annually.

The fellow would be assigned to the Surveillance Unit under the direction of the Director of Surveillance and Epidemiology. The Unit receives approximately 2000 reports of vaccine-preventable diseases annually including importations of measles, mumps and rubella. The fellow would be integrated into the daily activities of this Unit providing ample opportunity for gaining experience with case investigation and outbreak control. The fellow would receive orientation to the different programmatic areas of the Bureau and, with assistance, would develop a programmatic project tailored to their interest as their major project. Examples of types of projects available are promoting influenza vaccination to reduce racial disparities, participation in a sentinel immunization information system project, piloting adult provider assessment methodology, assessing completeness of reporting of pregnant women with chronic hepatitis B infection and pandemic influenza planning.

The Bureau is part of the DOHMH agency-wide work group on pandemic influenza planning and the lead on developing strategies for distribution of antivirals, pandemic vaccine, monitoring adverse events, and community mitigation. The Bureau works with numerous other DOHMH Bureaus and NYC agencies to develop plans to protect vulnerable populations such as the homeless, elderly, children in daycare, and the Department of Education on school closure plans. The Bureau participates in numerous exercises and drills and large vaccination 'Point of Distribution' clinics. The fellow would have the opportunity to participate in these activities to gain experience in emergency preparedness.

Potential surveillance projects include:

- 1) The Surveillance Unit currently conducts school-based varicella surveillance with approximately 750 cases reported annually. In mid-2008, the reporting of laboratory tests confirming varicella infection

became a mandatory notifiable condition. An evaluation of the current varicella surveillance system and to how to manage the incoming laboratory data would be an initial project. Furthermore, the effect of the recent 2-dose varicella vaccination recommendation on trends in reported cases and outbreaks will be evaluated. Recommendations on whether DOHMH should move to case-based surveillance would be an expected outcome.

2) Evaluation of current *S. pneumoniae* infection among children <5 years of age is another potential project. The Unit will be receiving more complete serotyping data in 2008 and this project would evaluate the current surveillance system and determine the impact of the childhood pneumococcal vaccine on circulating pneumococcal strains.

3) Another potential project is to describe the burden of disease from rotavirus. In 2006 a new rotavirus vaccine was licensed for use in infants that is expected to markedly reduce the number of hospitalizations from this disease. This project would describe the epidemiology of diarrheal hospitalizations, attributable burden due to rotavirus and racial disparities in disease burden. This project would require significant data analysis and use of large databases.

There will be numerous opportunities for the fellow to present the results from their projects, both in written and oral format, including at Bureau-level, Citywide Coalition meetings and at national immunization meetings in addition to the annual CSTE meeting.

Assignment Location: New York City, NY

Primary Mentor: Jane R. Zucker, MD, MS

Assistant Commissioner, Bureau of Immunization, New York City Department of Health and Mental Hygiene

Medical Epidemiologist, Medical Officer, Program Operations Branch, National Immunizations Program, CDC

Advanced Degrees: M.Sc., Harvard School of Public Health (1990)

MD, Mt. Sinai School of Medicine (1984)

Secondary Mentor: Christopher Zimmerman, MD, MPH

Director of Surveillance and Epidemiology, Bureau of Immunization, New York City Department of Health and Mental Hygiene

Advanced Degrees: MPH, Harvard School of Public Health (2002)

MD, University of Massachusetts School of Medicine (1990)