

Infectious Diseases

Assignment Description

The fellow will be assigned to the Division of Infectious Diseases, which includes Communicable Disease, Tuberculosis, Immunization, and STD/HIV Sections. Each of these Sections is responsible for state-wide disease surveillance, prevention, and control programs, conducted in collaboration with 95 local health departments. All Sections except HIV/AIDS are headquartered in Springfield (the state capital), located 200 miles from Chicago. Seven epidemiologists, including a CDC EIS officer and two former CSTE fellows, are currently based at IDPH's Chicago office, and are involved in refugee health, patient safety, HIV, informatics, and outbreak investigation activities. The Division of Patient Safety, which is responsible for healthcare-associated infection (HAI) surveillance via the National Healthcare Safety Network, is located in Chicago.

Day-to-Day Activities

Although most Division of Infectious Diseases staff are headquartered in Springfield, the majority of the state's population lives in and around Chicago, providing numerous opportunities for participation in outbreak investigations involving IDPH and/or large local health departments, as well as epidemiologic studies, and weekly infectious disease conferences. In addition, the major public health laboratory is located in Chicago, providing opportunities for collaborative interactions with scientists who have expertise in molecular genetics, virology, bacteriology, and parasitology.

Potential Projects

The fellow will be able to choose from numerous potential projects including:

- 1) Outbreak investigations--we have many, including common (Salmonella, Shigella, Legionella) and unusual (Monkeypox, Vaccinia, Plague) diseases.
- 2) Responsibility for day- to- day oversight of surveillance data for a reportable condition (eg histoplasmosis, legionella). This involves review and classification of new reports, responding to telephone calls from reporters, and ongoing review of surveillance data in order to identify outbreaks.
- 3) Analysis of trends in infectious disease (e.g. HIV) hospitalizations by race/ethnicity (using the hospital discharge dataset, which includes information for 1,000,000 discharges/year from Illinois hospitals.) Risk factors for hospitalizations among individuals with HIV will be assessed by reviewing surveillance and AIDS Drug Assistance Program data.
- 4) Surveillance system evaluation: e.g. case-based surveillance for varicella (implemented in 2007); chlamydia surveillance; influenza-associated ICU hospitalization surveillance.
- 5) Assessment of impact of a 2013 pertussis vaccine mandate for school children on pertussis rates. As of 2013, all students in 6-12th grade in Illinois are mandated to receive one dose of Tdap for school entry.
- 6) Assessment of the impact of "fracking" on the occurrence of sexually transmitted diseases.
- 7) Fieldwork to better define the distribution of ticks infected with *Borrelia burgdorferi* in Illinois.

- 8) Epidemiologic analysis of incidence and trends for nosocomial infection(s) in Illinois hospitals, using National Healthcare Safety Network data.

Preparedness Role

The fellow will have numerous opportunities to participate in response planning and training, as well as exercises and response to events (e.g. floods, earthquakes). The fellow can also participate in preparedness meetings within IDPH, and state and national partners. Depending on the fellow's interest, participation in such meetings could be more or less frequent (3x/month-1x/quarter).

Assignment Location:	Illinois Department of Public Health Chicago, Illinois
Primary Mentor:	Craig Conover, MD, MPH State Epidemiologist, Senior Medical Advisor
Secondary Mentors:	Livia Navon, MS CDC Career Epidemiology Field Officer Connie Austin, DVM, PhD, MPH State Veterinarian