

Infectious Disease

The Pennsylvania Department of Health (PA DOH)'s Division of Infectious Disease Epidemiology is responsible for a broad range of disease surveillance and control activities in Pennsylvania. The Fellow will work with IDE's Investigation, Surveillance and Preparedness Sections. Responsibilities of these sections include: interactions with six DOH regional offices and 10 County or Municipal Health Departments, outbreak and case investigations, surveillance of >50 infectious diseases, emergency preparedness epidemiology, data analysis, preparation of reports and educational materials for professionals and the public, and assisting in the development of public health policy and regulations related to infectious disease prevention and control.

The Pennsylvania Department of Health averages five EPI-AIDS requests and seventy formal disease outbreak investigations each year, and continuous opportunities exist to provide public health consultation and to investigate outbreaks. The Department provides a unique opportunity to participate in the ongoing design and implementation of a cutting-edge electronic disease surveillance system known as PA-NEDSS. This system is constantly updated as new technologies become available and as reporting requirements and information collection are modified. Pennsylvania also has a robust electronic syndromic surveillance system that captures real-time emergency department admissions data. Interaction is also possible with the Environmental Health and Community Epidemiology divisions in the Bureau of Epidemiology, and with vaccine-preventable diseases, HIV/AIDS, sexually-transmitted diseases, TB, maternal-child health, and chronic disease prevention and control programs which are located elsewhere in the DOH.

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

The fellow will fully participate in the day-to-day surveillance activities conducted by IDE staff, including participating in disease investigations; conference calls with federal, local and regional partners; attend departmental meetings as well as local, regional and national conferences. The fellow will have access to DOH databases pertaining to disease reporting and surveillance activities, as well as those that may be required under a specific project assignment. The fellow is expected to travel to various parts of the state as part of investigations or to give presentations to public health partners.

3) Examples of potential projects that demonstrate opportunities for data analysis, outbreak field investigations, and opportunities to work on interdisciplinary teams

A. TITLE OF PROJECT: Pennsylvania Health Care Associated Infections, evaluation of the implementation of a reporting system for healthcare associated infections.

BRIEF DESCRIPTION OF PROJECT

Pennsylvania's Health Care-Associated Infection Prevention and Control Act (Act 52) was signed into law in July 2007, and became effective one month later. Act 52 amends

the Medical Care Availability and Reduction of Error (Mcare) Act, adding a new Chapter Four— Health Care-Associated Infections to address the reduction and prevention of health care-associated infections. Pennsylvania has been a leader in the reporting of healthcare-associated infections, and this new law takes the next steps in accountability. Act 52 builds off this foundation by requiring not only reporting, but also benchmarking by all facilities and nursing homes to meet reduction targets.

The fellow will work with the Healthcare Infections and Antimicrobial Resistance section, as well as with staff from other bureaus and state agencies, to examine the quality of the data reported thru the National Healthcare Safety Network (NHSN) as required by Act 52. This will include evaluating reported data and determine annual benchmark criteria for various types of institutions based on reporting. The fellow will also assist on developing reporting systems and benchmarking criteria for the nursing home setting.

4) Program or surveillance system evaluation component

A. TITLE OF PROJECT: Use of the Pennsylvania National Electronic Disease Reporting Surveillance System (PA-NEDSS) for Surveillance of Lyme Disease

BRIEF DESCRIPTION OF PROJECT

Lyme Disease is endemic in the most populous portions of Pennsylvania. Traditionally, surveillance for Lyme Disease has been conducted by asking health care providers to submit case reports to their local health department. Case reports were then evaluated to see if the surveillance case definition for Lyme Disease was met. The Lyme Disease case definition includes clinical criteria as well as laboratory criteria. Pennsylvania now uses an electronic system for case reporting and management (PA-NEDSS), which includes batch reporting of laboratory test results from several large reference labs. Electronic laboratory reporting (ELR) has resulted in large numbers of potential Lyme Disease cases being reported to the Health Department. Department resources are strained by attempts to obtain clinical information on cases reported through ELR. A revised Lyme Disease case definition has been proposed to help health departments cope with this issue.

The fellow will examine the use of PA-NEDSS for surveillance of Lyme Disease. Sources of reporting, completeness of investigation information, and accuracy of case classification assignment will be evaluated. Case counts as determined by the current case definition, the proposed case definition, and alternate case definitions will be compared. Areas for improvement will be identified.

5) Role of fellow in State Emergency Preparedness plan

The fellow will participate in the refinement of the Community Containment plan for Influenza pandemic by assisting the PA State Epidemiologist in coordinating responses from other state agencies and stakeholders for operating procedures related to the implementation and sustainability of community containment strategies in the Commonwealth of PA. The fellow will also participate in ongoing training activities that

Pennsylvania_Infectious Disease

relates to emergency preparedness efforts, like the Rapid Response training for Avian Influenza, Forensic Epidemiology, BioWatch 101, etc.

Assignment Location:**Harrisburg, PA****Primary Mentor:**

Perrienne Lurie, MD, MPH, FACPM
Public Health Physician
Pennsylvania Department of Health

Advanced Degrees:

MD, New York Medical College (1986)
MPH, Columbia University (1989)

Secondary Mentor:

Veronica Urdaneta, MD, MPH
State Epidemiologist and Division Director
Pennsylvania Department of Health

Advanced Degrees:

MD, Zulia University, Venezuela (1989)
MPH, Johns Hopkins University (1997)