

Infectious Disease

The Division of Epidemiology in the New York State Department of Health (NYSDOH) is responsible for surveillance and control of infectious diseases in New York State (NYS). The Division contains four Bureaus: Bureau of Communicable Disease Control (BCDC), Bureau of HIV/AIDS Epidemiology, Bureau of Sexually Transmitted Disease Control, and the Bureau of Tuberculosis Control. Within the Bureau of Communicable Disease Control, there are the following programs: general regional epidemiology, nosocomial outbreaks and infection control, immunization, bioterrorism preparedness, emerging infections, arthropod-borne infections, and zoonoses. Although the primary supervisor for the Applied Epidemiology Fellowship is located in the Zoonoses Program and many exciting projects are available in this area, the Fellow is able and encouraged to undertake projects in any of the Bureaus or Programs within the Division of Epidemiology. There is ample opportunity for the interested Fellow to experience hands-on epidemiologic field investigation work if (s)he wishes.

Opportunities within the Zoonoses Program are typical of those throughout the Division. The Program is responsible for surveillance and control of zoonotic diseases in NYS. On interdisciplinary teams with local, state, and federal partners, including the other key programs of BCDC, the Zoonoses Program conducts epidemiologic surveillance, data collection and analysis, outbreak field investigations, oral presentations and training, prevention and control activities, assessment and development of regulations and statutes, and scientific publications. Within the responsibilities of the Zoonoses Program, there are a large number of health problems available for the perspective and involvement of an Applied Epidemiology Fellow, depending on his or her individual interests. The assignment will not require addressing all of these health problems. Instead, the issues provided below are examples of the types of health problems the Applied Epidemiology Fellow could choose from in determining specific training and program activities.

NYS has a unique program, established for more than 50 years, requiring the reporting of rabies postexposure prophylaxis (PEP) and paying for those treatments to avoid human rabies deaths due to prohibitive treatment costs. Thus, the State has the best data in the U.S. on PEPs and the reasons for them. In pilot studies, a bat rabies educational magnet has been demonstrated effective at educating the public to retain bats found in homes to rule out rabies. A large-scale intervention study is under consideration to identify appropriate intervention groups and to develop long-term evaluation and tracking measures.

A further assessment of NYS's mass rabies exposure incidents (with multiple persons requiring follow-up and treatment) could be developed by the Applied Epidemiology Fellow in collaboration with the local health departments.

NYS was the location for the first introduction of West Nile virus (WNV) into the Western Hemisphere. NYSDOH has played a national leadership role in the development of surveillance systems for WNV. Local governments have a particular need for real-time determinations of risk level in order to prioritize expensive prevention and control programs, and the Applied Epidemiology Fellow could continue ongoing NYSDOH investigations of geospatial mapping (GIS) analysis techniques to prioritize risk areas for WNV, and assist in the development of syndromic surveillance systems for bioterrorism and emerging disease detection.

Other disease outbreak or epidemiologic investigations the fellow may participate in include: anthrax, Q fever, monkeypox, plague, flu-like illnesses, foodborne and water-borne illnesses (salmonella, E. coli O157:H7, cryptosporidia), leishmaniasis, leptospirosis, etc.

Assignment Location: Albany, NY

Primary Mentor: Millicent Eidson, MA, DVM, DACVPM
State Public Health Veterinarian and Director, Zoonoses Program (1997-present)

Advanced Degrees: MA, University of Colorado (1979)
DVM, Colorado State University (1983)

Secondary Mentor: Barbara Jauch Wallace, MD, MSPH
Director, Bureau of Communicable Disease Control (June 1999-present)

Advanced Degrees: MD, University of Cincinnati College of Medicine (1990)
MSPH, University of Kentucky (1995)

Secondary Mentor: Perry Forrer Smith, MD
State Epidemiologist and Director, Division of Epidemiology (1996-present)

Advanced Degrees: MD, University of Cincinnati College of Medicine (1977)