

Infectious Disease/Environmental Health

Assignment Description

The fellow will get experience in both acute infectious diseases (foodborne outbreaks, cases of unusual communicable diseases) and environmental health (lead poisoning cases and follow-up, investigations of poisonings). Opportunities presented to the Fellow will allow them to develop an appreciation for the public health system; strengthen communication, collaboration, and teamwork skills; foster leadership skills in program design, implementation and evaluation; and reinforce strong investigation and statistical analysis skills.

Day-to-Day Activities

The Fellow's anticipated day-to-day activities would include work on long-term analytic projects and acute outbreak investigations (suggested projects below). Other routine activities would include:

- Collaboration with programs located within the Department of Public Health, other state agencies, local health departments, and research institutions involved in the monitoring and control of infectious diseases and environmental health hazards
- Participation in investigations with environmental health specialists and infectious disease epidemiologists to identify the source disease outbreaks
- Assist in conducting infectious disease and environmental health disease surveillance and case investigations
- Attend program level meetings to gain an understanding of health policy within the department and will attend policy meetings to gain understanding of the impact policy has on Iowans.

Potential Projects

There is flexibility built into the program such that the Fellow will have the option of pursuing specific projects of interest. Typical potential projects include:

- A. Evaluation of one or more of the following surveillance systems.
 - 1) Harmful algal blooms
 - 2) Cancer Registry
 - 3) Birth defects Registry
 - 4) Carbon Monoxide
 - 5) Lead (adult or childhood)
 - 6) Rabies/West Nile/Lyme
 - 7) Infectious enteric diseases such as Crypto/ Campy/ Salmonella/ E.coli

- B. Evaluate the effectiveness of the investigation system at the local and state level. Develop and implement improvement plan based upon evaluation of prevention and control measures. Provide this information to key stakeholders.
- C. Development of water-borne or food-borne outbreak surveillance system
- D. Analyze Environmental Health surveillance data
- E. Assist in writing surveillance reports (e.g. Pesticide Poisoning, Adult Lead Poisoning)
- F. Participate in outbreak investigations involving the Department of Public Health and local public health agencies. This may include designing questionnaires and other data collection tools, conducting interviews, and analyzing data; writing reports, oral presentations, and journal articles. Potential outbreaks include food-borne disease, water-borne disease or other environmental diseases such as Legionnaires or Histoplasmosis.
- G. Continue to develop environmental disease surveillance. Work with Department staff to improve tracking and surveillance of select environmental health reportable diseases and hazards beginning with developing case definitions. Provide guidance and leadership on the development of environmental health indicators. Draft a proposal for the importance of GIS database to include environmental exposures. Develop outreach materials.

Preparedness Role

The fellow will have the opportunity to participate in a response capacity to natural or man-made disasters by becoming a member of the Environmental Health Response Team or the Epi Response Team. The fellow will be offered opportunities to participate in tabletop exercises with the Center for Disaster Operations and Response, attend emergency preparedness trainings and meetings, food security trainings and offered the opportunity to attend the “Environmental Health Training in Emergency Response” course provided by the Department of Homeland Security Center for Domestic Preparedness.

Assignment Location: Iowa Department of Public Health
Des Moines, Iowa

Primary Mentor: Patricia Quinlisk, MD, MPH
State Epidemiologist/Medical Director

Secondary Mentor: Ann Garvey, DVM, MPH, MA
State PH Veterinarian /Deputy State Epidemiologist