Infectious Diseases

Assignment Description:

The CSTE Fellow will be housed in the Acute Disease Epidemiology Section (ADES) in the Epidemiology Program, which is directed by the Georgia State Epidemiologist, Dr. Cherie Drenzek. ADES is one of four Sections in the Epidemiology Program; the other sections are Chronic Disease, Healthy Behaviors, and Injury Epidemiology, HIV/AIDS Epidemiology, and STD Epidemiology. The goal of the Acute Disease Epidemiology Section (ADES) is to optimize the health of Georgians by preventing and mitigating certain communicable and/or notifiable infectious diseases. The ADES addresses this goal by using epidemiologic methods to:

- Conduct surveillance of infectious diseases
- Identify and respond to emerging infectious disease threats
- Provide support to local and district public health and private partners in identifying training and resource needs, developing guidelines for and investigating outbreaks or increases in endemic rates of disease, developing educational and training materials, and collecting and disseminating data.
- Publish and disseminate public health information: statistical reports (e.g. Georgia Epidemiology Report), outbreak investigation reports, annual data summaries, and educational materials.
- Participate in emergency preparedness planning, response and recovery efforts.

The Acute Disease Epidemiology Section is comprised of several infectious disease-specific Surveillance Teams: Foodborne Disease Epidemiology and Outbreak Investigation, Vaccine-Preventable Diseases, Respiratory Disease and Healthcare-Associated Infections, and Vectorborne and Zoonotic Disesase. The CSTE Fellow will have a range of project opportunities in each of these areas. The ADES has 4 doctoral-level epidemiologists (3 MD, 1 DVM) who serve as the aforementioned Team Leads, a doctoral level CDC EIS Officer (EIS 2012), 14 masters-level epidemiologists, 1 doctoral-level entomologist, and numerous support staff. The Acting Director of the ADES is the State Epidemiologist, Cherie Drenzek DVM, MS (EIS 1995).

Day-to-Day Activities:

1) Participate in numerous field outbreak investigations (in 2011, the ADES supported District Epidemiologists in the investigation of >100 outbreaks); 2) As one of only 10 Emerging Infections Program (EIP) sites in the United States, the Fellow would have the opportunity to conduct Georgia-specific epidemiologic analyses for Emerging Infections Program (EIP) datasets; 3) The Fellow may participate in a four-week rotation at a District Health Office and work closely with the District Epidemiologist on disease surveillance, individual case follow-up, and/or data analysis activities; 4) if interested, may participate in chronic disease, stroke registry, BRFSS, or other chronic disease-related epidemiologic studies under the coordination of experienced CSTE Fellow mentors such as A. Rana Bayakly, MPH and Lydia Clarkson, MPH.

Potential Projects:

- Develop analysis approaches for data collected through a new surveillance system for healthcare-associated infections (HAI) in Georgia and participate in HAI data validation efforts. Validation would involve reviewing medical charts to assess sensitivity and specificity of definitions used by healthcare facilities to report patients with central line-associated bloodstream infections (CLABSIs) to the National Healthcare Safety Network (NHSN) surveillance system.

- The CSTE Fellow will evaluate using preliminary hospital discharge ICD-9 data to identify pediatric hemolytic uremic syndrome (HUS) cases as compared to using the final hospital discharge dataset that has been validated. Activities include requesting hospital charts and reviewing them, and, for cases that meet the case definition, completing the standard FoodNet HUS case report form. The Fellow will compare the number of cases identified by the HUS ICD-9 codes between the preliminary and final datasets and calculate sensitivity and specificity of using the preliminary data.
- The Fellow will work on a project to improve acute hepatitis B and hepatitis C surveillance and control activities in Georgia using a 3-pronged approach:
- Review acute hepatitis B and hepatitis C cases reported in the State Electronic Notifiable Disease Surveillance System (SendSS) to ensure that they meet CSTE case definitions and to complete any missing risk factor data.
- Identify pockets of acute hepatitis C virus infections in Georgia, specifically among young IDUs in rural Georgia; compare the epidemiology (demographics, risk factors, behaviors) of acute hepatitis C cases in different areas of the state (e.g. north Georgia vs. south Georgia).
- Collaborate with state substance abuse staff and hepatitis prevention staff to identify persons in need of viral hepatitis screening/education and substance abuse treatment referrals.
- The Fellow will undertake a project related to one of our two newly initiated grants, replication of a HIV Health Information Exchange or the Care and Prevention of HIV in the US (CAPUS), that offer opportunities to translate near real-time surveillance data into clinical and programmatic activities, as well as gain experience with health informatics. Potential projects include developing small-area geographic and demographic profiles to target activities, evaluating the implementation of an integrated public health clinic risk assessment (HIV/STD/TB/Hepatitis), or furthering expansion of an HIV Health Information Exchange (HIE) to new clinical settings.

<u>Preparedness Role</u>

The Fellow's specific role in Emergency Preparedness will be somewhat dependent on the incidents that occur during his/her tenure. To ensure adequate preparation, If not already completed, the Fellow will be expected to complete the core NIMS courses (i.e., 100, 200, 700, 800), In addition, the Fellow will complete the Crisis and Emergency Risk Communication (CERC) either on-line, or preferably in-person if the course is offered, as its core risk communication principles and skills are critical competencies for both emergency response and more general disease outbreak and high profile public health situations.

Specific opportunities will be developed to expose the Fellow to aspects of emergency planning, preparedness, and response. Michele Mindlin, Deputy Director, Epidemiology, has had extensive public health emergency preparedness experience, pre-dating the events of 9/11, and she will function as a mentor for the Fellow in this area. Based on the interests of the Fellow and the Epidemiology Section needs, the Fellow and Ms. Mindlin will tailor this role. The Fellow will participate in an exercise that incorporates epidemiologic objectives and, should an actual incident that necessitates activating the emergency operations center (EOC) occur, the fellow will have assigned responsibilities within the ICS structure.

Assignment Location:	Atlanta, GA
Primary Mentor:	Cherie Drenzek, DVM, MS Director, Epidemiology Section; State Epidemiologist Georgia Department of Public Health

Secondary Mentor:	Julie Gabel, DVM, MPH Medical Epidemiologist, Acute Diseases, State Public Health Veterinarian Georgia Department of Public Health