

## **Infectious Diseases**

### **Assignment Description**

The San Francisco Department of Public Health (SFDPH) is a national and international leader in innovative and state of the art public health practice. This placement will provide an excellent orientation to core public health activities, focusing on the applied epidemiology of communicable disease control and prevention. The Fellow will be asked to contribute to the day-to-day epidemiology activities of the Communicable Disease Control Unit to the extent that these activities are learning opportunities; however the main emphasis of the placement will be on individual and collaborative communicable disease-related projects of mutual interest to the Fellow and the PHD leadership. The Fellow will have the opportunity to work on emerging infectious disease issues as these arise.

### **Day-to-Day Activities**

The Fellow will have a great deal of flexibility to manage his/her time and to select and manage projects. The fellow will participate in routine activities of the Communicable Disease Control Unit and ARCHES, including team meetings, in-services, preparation of alerts and advisories, and outbreak response activities. The Fellow may participate in case-patient interviews and disease investigations, as well as site visits and educational outreach per his/her interest.

The Fellow will be oriented to other Infectious Disease programs, including Disease Prevention, Tuberculosis, HIV, and Sexually Transmitted Diseases, and will have the opportunity to participate in team meetings, journal clubs, case management conferences, seminars, interagency collaboratives, and other educational activities. Depending on interest, the Fellow can also assist Community Health Equity and Prevention staff in outreach during several of San Francisco's famous street fairs (Gay Pride, Folsom, Dore Alley, STD Awareness month, etc), and can audit a graduate level course entitled "Sexual Health Promotion and STD Control" offered at University of California, Berkeley.

### **Potential Projects**

Possible Surveillance System Evaluation Topic: Evaluation and process improvement of the Communicable Disease Control Unit's outbreak surveillance system.

Potential activities include an inventory and critical evaluation of the current process, including reporting guidelines, templates and checklists, supporting documentation, use of descriptive statistics and case definitions, investigation closure procedures, and tools for quality assurance. The Fellow could also help work with the MAVEN team to develop protocols for documentation and electronic submission of outbreak data, including disease-specific modules such as E. coli, invasive meningococcal disease, and measles.

Potential additional projects include:

- 1) Identifying the burden of enteric diseases among men who have sex with men. San Francisco is home to nearly 60,000 men who have sex with men (MSM), many of whom may be at increased risk to

enteric infection due to the increased prevalence of fecal-oral contact. Little is known about the relative burden of enteric diseases among this population in San Francisco. The Fellow will oversee a surveillance match between enteric infections reported to the SFDPH and the SFDPH STD and HIV registries which contain data on MSM status. The Fellow will conduct the match and all related analyses that explore if the MSM population is indeed at excess risk for these infections and possible avenues for prevention and control. The results of this analysis will be presented both to internal SFDPH leadership but also at a scientific meeting and as a published peer-reviewed manuscript.

2) Needs assessment for gastrointestinal disease outbreak prevention in residential care facilities. Potential activities include residential care facility outbreak data analysis, review of existing policy and regulations, survey of facility staff/administrators to ascertain knowledge deficits and need for technical assistance, and the creation of educational modules and/or policy recommendations for prevention of these outbreaks.

3) An investigation of the implementation of the Advisory Committee of Immunization Practice's 2012 recommendation for Pertussis re-immunization during each pregnancy. This project could involve analysis of immunization registry and summary report data, as well as electronic medical record data from hospital and/or outpatient clinical settings. The fellow may also assess barriers to compliance with the recommendation and strategies to address these barriers.

### **Preparedness Role**

The Fellow will be involved in providing epidemiologic support for the surge response for outbreaks and other severe communicable disease events. Additionally, The Fellow will have the opportunity to work with the California Emerging Infections Program, a CDC-funded entity that collaborates with SFDPH in emerging infection and outbreak surveillance. The fellow will be oriented to the activities of the Public Health Emergency Preparedness and Response branch of SFDPH, and can become involved in preparedness exercises and the creation of after action reports and emergency plans according to his or her interest.

**Assignment Location:** San Francisco Department of Public Health  
San Francisco, CA

**Primary Mentor:** Cora Hoover, MD, MPH  
Director, Communicable Disease Control and Prevention

**Secondary Mentor:** Trang Nguyen  
Epidemiologist, Applied Research, Community Health Epidemiology, and Surveillance (ARCHES) Branch