

Infectious Disease

Assignment Description

This Fellowship placement offers mentoring through the Connecticut Department of Public Health Infectious Diseases Section working in the Tuberculosis (TB) Control and Sexually Transmitted Diseases (STD) Programs. The TB and STD Programs' responsibilities include developing and providing education for healthcare providers, assisting local health departments, working with regional public health programs, developing guidelines, implementing disease surveillance and analyzing data, conducting epidemiological studies, investigating outbreaks, interacting with providers to manage patients, and assisting in the development of public health policy.

The Fellowship provides a variety of practical, hands-on experiences that will expand the Fellow's knowledge and skills in applied epidemiology and public health practice. This experience will help prepare the Fellow for a career with a state or local health department. The Fellow will be considered an integral member of the TB and STD Programs. Our goal is to further the Fellow's professional growth and expand access to public health practitioners and leaders.

Day-to- Day Activities

The Fellow will lead more than one project that may be a team effort or in collaboration with other public health agencies or nongovernmental groups. The Fellow will work with her/his mentors to develop project plans and timelines to keep on track. Regular meetings with mentors as well as an "open door" policy will ensure that the Fellow can manage the multiple tasks that they can take advantage of at the local, state or regional level. The products that the Fellow will produce include presentations at conferences or to partners or other public health groups, internal reports for the use of the program, and manuscripts that will be published in peer-review journals. During the Fellowship, the Fellow will attend a TB and a STD conference and have opportunities to present their projects.

Potential Projects

The proposed projects are collaborative and emphasize prevention interventions, the use of data for decision-making, evaluating programmatic outcomes, and building program capacity. Both the TB and STD programs are also involved in projects with other programs in the New England region. The Fellow will have an assortment of options to develop and demonstrate core competencies in epidemiologic methods, communication, public health practice, and program evaluation. Opportunities exist to attend and present at public health meetings.

Portfolio of projects:

Testing and treatment

1) Specialized diagnostic tests for earlier diagnosis of TB disease are important tools for TB control. Recently, the state public health laboratory implemented routine use of nucleic acid amplification testing. An evaluation involving collecting, analyzing, and interpreting data on the use of nucleic acid amplification tests is a possibility. The Fellow will work with the TB program and the state lab and have an opportunity to present the findings publicly.

2) The Fellow can play a key role in the public health response to increasing cases of gonorrhea. The STD program has a need for close follow up of cases reported from urban centers especially among African Americans. The Fellow will help develop a social marketing campaign in high-incidence cities. The Fellow would also provide assistance by interfacing with private and public providers, health department staff, and the community, to get their buy in. A special issue to address is how to reach hospital emergency departments with possible screening and treatment initiatives. Data analysis including the use of geo-coding cases will be part of the public health response by determining the communities where cases are coming from.

3) The Fellow will have opportunities to help plan and coordinate TB and STD educational efforts in the state and the New England region. Education is targeted to providers, public health nurses, and others. Contact and outbreak field investigations

4) The TB Program assists local health departments in conducting public health investigations in the community and periodically in congregate settings (e.g. prisons). The TB Program would like to learn how to improve program outcomes such as start of treatment for contacts and other high-risk individuals with latent TB infection. The Fellow will acquire cultural awareness and sensitivity as the majority of patients are from countries other than the United States and gain an understanding of HIPPA issues.

5) The STD Program is investigating syphilis transmission among gay men, 40% of whom are HIV infected. This is an excellent opportunity for a Fellow to apply a diversity of epidemiologic methods to describe the epidemiology and risk factors related to this outbreak. Fellows can be involved in partner notification, developing a social network analysis to display patterns of transmission especially among HIV-infected men, and take the lead on creating prevention messages. It would be very helpful to the STD Program for the Fellow to prepare recommendations for prevention among persons who persist in engaging in high-risk sex.

6) Assisting on outbreaks such as H1N1 influenza, food or waterborne outbreaks, and other infectious agents is possible and encouraged. Epidemiologic data collection and analysis

7) An opportunity exists to analyze surveillance data including molecular genotyping data and make recommendations to the Program. The Fellow would design the analysis and create a surveillance report and special reports including temporal and spatial trends analysis to define the changing patterns of TB transmission. Previous analyses and publications include TB in the foreign born and outcomes from contact investigations.

8) Connecticut has been working with CDC and other states in developing surveillance for neonatal herpes. The Fellow would have the opportunity to continue work began by a past Fellow and potentially expand the current surveillance system by doing a retrospective study of cases at the two largest children's hospitals in the state.

Program evaluation

9) The TB Program has embarked on an evaluation of programmatic outcomes (National TB Indicators Project). This year's focus will be processes and outcomes of Civil Surgeon examinations for TB and other communicable diseases. Civil Surgeons perform health evaluations for refugees and immigrants who are adjusting their status to permanent residents. The Fellow can make an important contribution to the Program on defining needed improvements in this area. Findings are reported to CDC.

10) Evaluation of the completeness of TB case reporting to the state surveillance system is an important program function. This evaluation will take place through a Laboratory record review to find potentially unreported TB cases. The evaluation may include a review of medical records, physician or local health staff contact or patient interviews. Reasons for non-reporting of TB cases should be determined and a plan for improvement developed and implemented. Education

11) The Fellow will have the opportunity to assist Dr. Matt Carter, Connecticut state epidemiologist, in teaching the course “Investigation of Disease Outbreaks” in which MPH candidates and others learn to use epidemiology to guide public health interventions and the development of public health policy. State emergency preparedness plan

12) Possible activities may include working with bioterrorism/emerging pathogen response protocols, and planning for continuity of program operations in an emergency. Fellows may participate in a table top exercise.

Preparedness Role

Connecticut is a leader in preparedness policy and actively promotes preparedness training and exercises. The Fellow will have several opportunities to participate in planning exercises and table top scenarios.

Assignment Location: Hartford, Connecticut

Primary Mentor: Mark Lobato, MD
Medical Officer
CDC

Secondary Mentor: Lynn Sosa, MD
Deputy State Epidemiologist
Connecticut Department of Public Health