

Infectious Diseases

Assignment Description:

The Fellowship offers mentoring through the Connecticut Department of Public Health Infectious Diseases Section working in the Tuberculosis (TB) Control and Sexually Transmitted Diseases (STD) Control Programs. The TB and STD Programs' responsibilities include developing and providing education for health care providers, assisting local health departments, working with regional public health programs, developing guidelines, implementing disease surveillance and analyzing data, conducting epidemiological studies, evaluating program activities, 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.

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

Day-to-Day Activities:

The Fellow will lead their own projects. The day-to-day activities will vary but activities are project centered to include preparation of a protocol and data collection tools, relating to the state IRB (if needed), data collection, data analysis, preparing reports, presentations, and publications.

Potential Projects:

Health Care Reform

- 1) The Fellow can play a key role in positioning public health to respond and adapt to the coming full implementation of the Affordable Care Act. One important partner for the health department will be community health centers (CHCs) in the state. The Fellow would develop and implement a survey of CHCs in the state to better understand TB, Hepatitis, HIV and STD testing practices, case management systems and follow-up policies at these facilities.

Surveillance Projects

- 2) The Connecticut DPH is considering expanding TB surveillance to include cases of latent TB infection. The Fellow will take lead responsibility for monitoring LTBI reporting and for evaluating the completeness and accuracy of data. The focus will be on those subgroups that are currently reportable (HIV infection, contacts, children age <7 years). Outcomes of interest are completeness of the medical evaluation, start of therapy for persons who test positive, and completion of therapy.
- 3) 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

expand the current surveillance system by doing a retrospective study of cases at the two largest children's hospitals in the state.

Public health 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. The Fellow will acquire cultural awareness and sensitivity given that the majority of patients are from countries other than the United States and will gain an understanding of HIPAA issues.
- 5) Assisting on outbreaks outside of the TB and STD Programs such as influenza, food or waterborne outbreaks, and other infectious agents is possible and encouraged.

Epidemiologic data collection and analysis

- 6) The Fellow will work with the state refugee and immigrant health coordinator to review public health reporting of immigrants and refugees who had received a TB classification during overseas screening. Working with local health departments, health care providers, and refugee resettlement agencies as appropriate, the Fellow will determine the following outcomes for medical follow up in Connecticut: TB testing and evaluation, whether treatment for TB infection was started and completed, and whether a reporting form was submitted to the state Department of Public Health. These data will be used to improve testing and treatment by providers and reporting to local and state health departments.
- 7) Persons living with HIV are susceptible to infections with other organisms. The health department is interested in learning more about coinfections with TB, STDs, and hepatitis C and B viruses. The Fellow will use existing surveillance and case management systems to define the types and proportions of infections among persons with HIV infection. Of interest are prevention measures such as testing for coinfections and interventions for preventing coinfection or development of disease (e.g. treatment of latent TB infection).

Program evaluation

- 8) Directly observed therapy (DOT) is the standard of care for persons being treated with pulmonary TB. The program is planning to evaluate the use of DOT, who receives DOT, the criteria used for starting DOT, if DOT is stopped, the reasons why it was stopped and treatment outcomes for persons on DOT compared with persons who were not on DOT.
- 9) Specialized diagnostic tests for earlier diagnosis of TB disease and TB infection are important tools for TB control (e.g., GeneXpert-MTB/Rif, QuantiFeron). The Fellow would conduct an evaluation study involving collecting, analyzing, and interpreting data on the use of these tests. The Fellow will work with the TB program and the state lab and possibly another state TB program and lab and have an opportunity to present the findings publicly.

Education

- 10) Expedited partner therapy (EPT) for the treatment of partners of persons with chlamydia or gonorrhea was recently made allowable practice in Connecticut. The Fellow would work on an information campaign to raise awareness among health care providers in the state that EPT is allowable practice. This would likely also include educating providers on recently updated recommendations for the treatment of gonorrhea and how this might affect the use of EPT.

- 11) 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. The Fellow will also present at educational meetings organized by the state programs or to which the programs are invited to attend.

Preparedness Role:

Possible activities might include working with bioterrorism/emerging pathogen response protocols, and planning for continuity of program operations in an emergency. The fellow may also participate in table top exercises.

Assignment Location:	Hartford, CT
Primary Mentor:	Mark Lobato, MD Medical Officer Connecticut Department of Public Health
Secondary Mentor:	Lynn Sosa, MD Deputy State Epidemiologist Connecticut Department of Public Health