

Maternal and Child Health/Infectious Disease

This assignment is a unique collaboration between Maternal and Child Health and Infectious Disease. The fellow's projects will focus on health-related issues related to women, children and families in Maine. The fellow will gain experience in the epidemiologic methodologies of Maternal and Child Health and Infectious Disease.

Day-to-Day Activities:

The fellow's activities will be determined by the individual's interest in combination with the needs of programs within the Divisions of Family Health and Infectious Disease. On a day-to-day basis, activities would include participating in a morning call with other epidemiologists and field staff involved in infectious disease surveillance. Assistance with the on-call Epidemiologist on a rotating basis will also be part of the fellow's activities. In addition to these tasks, we anticipate the fellow will work on 2 projects at a given time. These projects will consist of data analysis, report writing, survey development, evaluation, and manuscript/presentation development.

Potential Projects:

Fellow could select from any of the following projects:

- Develop "Problem Maps" for some of Maine's new MCH priorities. Every 5 years, the state's Title V program is asked to select 7-10 priorities that will guide efforts for the next 5 years. Maine's Title V program will have selected priorities by Spring 2010. As the next step of the process we will be "mapping" each priority to identify risk and protective factors and consequences. A fellow could conduct in-depth analyses of each priority using survey data, vital records data and hospitalization data based on evidence from existing research. The fellow would also work with the division to help determine the strategies and best practices available to address each issue.

- Analyze data from the Maine Youth Integrated Health Survey, a new school-based survey of elementary, middle school, and high school students. Data will be available in winter 2009 and many new questions are on the survey that are unique to Maine and have national significance. Topics include: substance use, injury, violence, protective factors, sexual behavior, chronic disease, physical activity and nutrition, and oral health among others.

- Develop a women's health profile for the state using vital statistics, survey, and hospitalization data. A Women's Health profile was created several years ago, but has not been updated with recent data. The fellow would work with the Women's Health coordinator to determine the indicators that would be included in the profile, conduct the analyses, and create the final report.

- Analyze Maine's PRAMS data to examine how specific prenatal behavior (e.g., smoking, substance use during pregnancy, weight gain) have changed over time and how these changes have affected birth outcomes.

- Analyze several recently established linked datasets, including a linked WIC-birth certificates dataset and Medicaid-birth certificate linkage.

- Work with Maine's Office of Minority Health and Project LAUNCH (Linking Actions for Unmet Needs in Children's Health). Although Maine has a substantial population of American Indians residing in the state and an increasing number of immigrants and refugees, it is challenging to identify the most pressing needs of these populations because the sample sizes of these groups obtained from surveys are often too small to yield reliable estimates. The Office of Minority Health at the Maine CDC is very interested in trying innovative methodologies to assess the health needs of Maine's minority populations. The fellow could work with her to help spearhead these efforts.

- Evaluate Maine's PRAMS data system and compare results to birth certificate records.

- Analyze Medical Examiner data on Youth Suicides in Maine collected as a pilot for Maine's Violent Death Reporting System.

- Analyze Crash Outcome Data Evaluation System (CODES) for patterns of motor vehicle crashes to inform injury prevention efforts (e.g., helmets and motorcycles and hospitalization outcomes)

- Analyze data collected on Campylobacteriosis and Giardiasis cases under the age of 5. These cases are investigated by field staff but no analysis has been conducted to date to determine possible differences, risk factors, and the impact of refugee screening on children under age 5 with these conditions compared to adults. Also assess the data to look for geographic trends and address area with high incidence of cases.

- Analyze data collected on Lyme disease cases in children in the state of Maine to look for differences in presentation, testing and risk factors compared to adults. Currently there is a 5th grade curriculum designed specific for Lyme disease and a DVD directed to children designed by Maine's Vectorborne Disease Workgroup. The fellow would take the results of the analysis and determine methods to increase education and awareness of Lyme disease among children and target specific geographic locations and age groups (for example, working with new mothers, or WIC clinics).

- Design and develop databases to be used for Tuberculosis surveillance and control needs. This would include working with both TB case information as well as latent TB infection (LTBI) to develop one registry for historical and current data for both conditions. The fellow will participate in outbreak investigations as these occur, participating not only in a state outbreak but also participate in a national outbreak or cluster investigation.

Additionally, any studies that evolve during the 2 years when additional help is needed by field staff. Outbreak and projects would include developing a specific questionnaire, reviewing hospital records, performing interviews with case patients and controls, and writing up an outbreak investigation or study report.

Emergency Preparedness Role:

The fellow will participate in general infectious disease surveillance and attend all trainings involving Infectious Disease Epidemiology staff on Emergency Preparedness issues. The fellow will become knowledgeable on the distinct roles both Infectious Disease Epidemiology and the Office of Public Health Emergency Preparedness have during a Public Health Emergency. If desired, the fellow will be trained on the phone bank that is in operation currently with H1N1 flu concerns and for other issues (e.g., flooding event) as needed.

Assignment Location: Augusta, ME

Primary Mentor: Erika Lichter, ScD, MS, MA
Maternal and Child Health Epidemiologist
Maine Center for Disease Control and Prevention

Secondary Mentor: Amy Robbins, MPH
Data Manager - Infectious Disease Epidemiology
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