

Maternal and Child Health

The Maternal and Child Health (MCH) fellow in Maine will help support programs in the Divisions of Family Health and Chronic Disease within the Maine Center for Disease Control and Prevention. Epidemiological support for these programs is provided by a team of five epidemiologists based at the Maine CDC and employed by the University of Southern Maine's Department of Applied Medical Sciences. The epi team works within two divisions to build epidemiology capacity, provide epidemiologic and statistical support, conduct research and evaluations, and guide program planning and activities. Programs within the Division of Family Health include: WIC, Children with Special Health Needs, Genetics and Newborn Screening, Injury Prevention, EPSDT, Teen and Young Adult Health, and Women's Health. We also work closely with Maine's Oral Health, Asthma, and Coordinated School Health Programs within the Division of Chronic Disease.

Day-to-Day Activities: The fellow's activities will be determined by the individual's interest in combination with the needs and funding of programs within the Division of Family Health. On a day-to-day basis, we anticipate the fellow will work on 2-3 projects at a given time. These projects will consist of data analysis, report writing, survey development, evaluation, and manuscript/presentation development.

Potential Projects:

- In-depth analyses of Maine's infant mortality data, including a Perinatal Period of Risk analysis, to inform Maine's newly established Maternal and Infant Mortality and Resiliency Review Panel.
- Analyses of Maine's PRAMS data to examine how prenatal behavior has changed over time and what effects this has had on birth outcomes.
- Analyses of several recently established linked datasets, including a linked WIC-birth certificates dataset and Medicaid-birth certificate linkage.
- In 2006, Maine was one of four states that asked to participate in a Safe Families initiative to address perinatal health disparities due to domestic violence and sexual assault. Our current fellow developed a surveillance plan for this initiative. The new fellow would have the opportunity to carry out this plan, analyzing data from sources such as BRFSS, YRBS, hospitalization, PRAMS, death certificates, and child welfare. In addition, Maine is starting a surveillance system to collect data from Sexual Assault Forensic Exams. A pilot project will be starting early next year and we hope to begin implementing it state-wide in the summer or fall of 2008. The fellow would be able to help design the protocols and survey for this project and take the lead on the analyses.
- The new National Survey of Children with Special Health Care Needs is due to be released in the Fall of 2007. Our CSHN program would like this survey, as well as the 2003 survey results, analyzed and compared.
- The Maine Child Health Survey, one of the few elementary school surveys in the nation, is scheduled to be administered in Fall 2009. The fellow could be instrumental in helping to design the survey instrument, assisting with the sampling, and conducting analyses of the results. This survey includes data on childhood asthma, special health

care needs, injury, bullying, and exposure to environmental tobacco smoke, and includes actual measures of height and weight and a dental screening.

- 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 this office to help spearhead these efforts.
- Maine's MCH leadership is at the forefront of investigating measures of community and individual level strengths that promote health (e.g., community connectedness, social support). Opportunities exist to work with the interdisciplinary MCH block grant committee to develop measures and conduct analyses to identify protective factors for health.
- Fellows in Maine are routinely invited to participate in outbreak investigations and are encouraged to participate in ongoing efforts with our Division of Infectious Disease by attending daily calls and attending and presenting at the monthly epidemiology seminars.

In addition to the specific projects outlined above, the MCH fellow would have the opportunity to learn to conduct analyses using state-based data systems including vital statistics, hospitalization, emergency department, Youth Risk Behavior Survey (YRBS), and BRFSS. The experience and knowledge of the epi team also would allow a fellow to receive supervision in complex survey analyses and other innovative methodologies including GIS analyses, mixed models, and sample selection.

Program or surveillance system evaluation component

There are several opportunities for evaluations of surveillance systems and programs. Maine's ChildLink database includes linked information on birth defects, newborn screening, newborn hearing, and infant births and deaths. We would like to determine whether other systems can be linked to this system and how the system can best be utilized. In addition, starting in March 2007, Maine hospitals were required for the first time to submit race and ethnicity as part of the hospital discharge dataset. We would like an evaluation of the reliability and validity of this data. Other evaluation projects include an evaluation of the WIC data or the usefulness of Medicaid data for MCH. The suicide prevention program is also interested in exploring the usefulness of juvenile justice and mental health data for the purposes of suicide surveillance.

State Emergency Preparedness planning

Members of the epi team are part of Maine's bioterrorism response team. The response team offers ongoing training, in which the Fellow can participate. The Fellow would be linked with appropriate personnel on the bioterrorism response team to discuss possible projects.

Assignment Location: **Augusta, ME**

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Primary Mentor: Erika Lichter, ScD, MS
MCH Epidemiologist and Assistant Research Professor

Advanced Degrees: ScD, Harvard School of Public Health
MS, Harvard School of Public Health

Secondary Mentor: Katie Meyer, ScD, MPH
Assistant Research Professor
University of Southern Maine

Advanced Degrees: ScD, Harvard School of Public health (2002)
MPH, University of Minnesota (1997)