

Maternal Child Health

Assignment Description

The Washington State Department of Health (DOH) proposes placing a CSTE Fellow with the Maternal and Child Health Epidemiology Unit of the Surveillance and Evaluation Section. This section is located within the Office of Healthy Communities, Prevention and Community Health Division and provides epidemiologic and assessment services to programs in state and local health, external health-related organizations and agencies, and the public. The Maternal and Child Health Epidemiology Unit has approximately 8 analytic staff that focus on issues related to maternal and child health. The Maternal and Child Health Epidemiology Unit collaborates closely with several surveillance programs, including the Pregnancy Risk Assessment Monitoring System (PRAMS), the Birth Defects Surveillance System (BDSS), the Healthy Youth Survey, and maternal mortality surveillance. The MCH Epidemiology Unit also has a strong partnership with the American Indian Health Commission for Washington State* and has collaborated on a number of projects to address Tribal MCH priorities. (* The AIHC works on behalf of the 29 federally recognized tribes and two Urban Indian Health Organizations in Washington.)

The MCH Epidemiology Unit will provide a Fellow with the opportunity to develop a high level of proficiency in core applied epidemiology competencies, including surveillance system design and evaluation, study design, epidemiologic methods, data interpretation, using data to inform policy and programmatic decision-making, communication, emergency preparedness, and overall public health practice. The Fellow will have the opportunity to collaborate and network with a wide range of public health leaders within the Department of Health and across Washington State; the opportunity to develop presentations and publications of their work; and the opportunity for training and developing skills in oral presentations, written communication, developing collaborations, facilitation, leadership and analytic methodology.

Day-to-Day Activities

The placement offers an opportunity for the Fellow to become immersed in issues related to MCH epidemiology on a day-to-day basis. The fellow will be actively engaged in project planning, providing analytic and epidemiologic support to programs within DOH, developing research projects, conducting needs assessments, and conducting program evaluations. Activities include both individual self-directed work and collaboration on workgroups. There will be frequent opportunities to meet and consult with colleagues to review collaborative projects, present materials, and gather feedback. The Fellow will also meet regularly with the mentors to review approaches, discuss questions or challenges, and to learn about the Health Department.

The fellow will participate fully in MCH Epidemiology Unit and Surveillance and Evaluation Section activities, including staff meetings, Department of Health brown bag seminars, trainings, advisory committees, and other workgroups. The Fellow may also have the opportunity to attend state and regional conferences making presentations to both professional and lay audiences.

Potential Projects

The Fellow will work with the mentors to identify projects that are of mutual interest and meet the fellowship requirements. It is expected that Fellows will have the opportunity to work on a wide variety of projects to ensure s/he develops a broad range of skills in applied MCH epidemiology. Potential projects may include, but are not limited to:

- Evaluating the Birth Defects Surveillance System to determine process improvements to improve completeness and timeliness of case reporting.
- Conducting a bias analysis for the 2010, 2011, and 2012 PRAMS survey data using mapping software.
- Analyzing hospitalization data to look at time to surgery for infants born with birth defects and evaluate any potential disparities in care (e.g. insurance, race/ethnicity, education).
- Analyzing the impact of different race/ethnic classifications on birth outcomes. Use the information to make a policy recommendation.
- Analyzing the method of delivery on infant and maternal morbidity, length of stay and re-hospitalization rates.
- Analyzing infant death data from vital statistics records and Child Death Review database. Use the information to support development of prevention priorities.
- Analyzing PRAMS data to describe perceived discrimination and its association with reproductive health behaviors and outcomes
- Conducting an in-depth analysis of selected child and adolescent health behavior topics using the Healthy Youth Survey data, National Survey of Children's Health, or the National Survey of Children with Special Health Care Needs.
- Design and implement a statewide survey of pregnant and parenting teens in the GRADS program (an in-school program to support pregnant and parenting teens).

The fellow may also have the opportunity to partner with the American Indian Health Commission to develop projects that work to improve Tribal Maternal and Child Health in Washington. Potential projects might look like:

- Evaluation of current Child Death Review for surveillance of American Indian and Alaska Native unexpected deaths and recommendations regarding American Indian/Alaska Native-specific child death review.
- Working with the AIHC and Tribal Maternal and Infant Health Workgroup to develop a regular surveillance report for the American Indian and Alaska Native population to track trends and identify issues of concern for the MCH population using existing databases: vital statistics, PRAMS, Healthy Youth Survey.
- Exploring unintended injury hospitalizations and deaths and risk factors among American Indian/Alaska Native infants and young children using the birth events records database.

- Using PRAMS data to explore a priority maternal health outcome such as prenatal vitamin use, smoking, breastfeeding initiation, or postpartum depression and risk and protective factors
- Using Healthy Youth Survey data to explore a priority adolescent health issue such as physical activity, nutrition, asthma or bullying and associated risk and protective factors.
- Using Vital Statistics or hospitalization data to explore a priority health issue for the tribes.

Outbreak Investigation: The MCH Epidemiology Unit collaborates with the Communicable Disease-Epidemiology Office and Office of Non-Infectious Conditions Epidemiology. These offices are responsible for infectious and non-infections epidemiologic responses, respectively. These offices will collaborate in providing mentoring for cluster and outbreak investigations involving MCH issues and populations. Previous collaborations have included pertussis outbreaks, a neural tube defect cluster investigation, and a gastroschisis cluster investigation. The Fellow will work with these Offices to choose an outbreak investigation that is of interest to the Fellow and meets the requirements of the fellowship.

Preparedness Role

There are several opportunities for involvement in emergency preparedness depending on the interest and expertise of the Fellow. As part of the department's Emergency Preparedness Planning, each division has designated emergency preparedness coordinators. The coordinators work with all staff in their respective divisions to provide training and opportunities to volunteer for specialized response efforts. The Fellow could participate in these activities, in activities related to coordinating emergency preparedness with sovereign nations, extending emergency preparedness plans to specialized populations such as pregnant women, infants or children with special health care needs, or other activities.

Assignment Location: Olympia, WA

Primary Mentor: Katherine Hutchinson, PhD, MSPH
Epidemiologist

Secondary Mentor: Cathy Wasserman, PhD, MPH
Epidemiologist