Maternal and Child Health
Wisconsin Department of Health Services, Division of Public Health / Bureau of Community Health Promotion
Madison, Wisconsin

Assignment Description
The Family Health Section (FHS) in the Bureau of Community Health Promotion (BCHP) in the Wisconsin Division of Public Health (DPH) consists of cross-cutting and integrated programs throughout the lifespan: maternal and child health (MCH); birth defects surveillance; reproductive health; genetics; universal newborn hearing screening; children and youth with special health care needs (CYSHCN) that includes children with behavioral and mental health issues; injury and violence prevention, which houses the Wisconsin Violent Death Reporting System. The FHS is also strengthening partnerships with physical activity and nutrition (including WIC); and chronic disease (tobacco prevention and control, diabetes, heart disease and stroke, cancer control, and the Well-Woman program). This is in response to the MCH 5-year needs assessment that identified priority areas and performance measures.

This placement will provide the fellow with the opportunity to work on any number of available projects. The surveillance evaluation of the Maternal Mortality Review program will allow for collaboration with an experienced MMR project team, and the FHS Data Team members have extensive experience conducting surveillance evaluations and will be available to support the fellow in this project. The proposed major project will allow the fellow to take advantage of the rich data sources and linked files available in DPH. The mentors look forward to working with the fellow to identify challenging analytic opportunities to enhance their skills in analyzing and translating data into evidence-informed public health practice.

The CSTE fellow will have exposure to all areas of epidemiology, program evaluation, and disease surveillance in FHS, which has 8 full-time epidemiologists and data staff specializing in various areas of Family Health. These individuals, along with students from the University of Wisconsin School of Medicine and Public Health (UWMSHP) and a number of fellows and trainees, make up a learning community that contributes to public health workforce development.

Day-to-Day Activities
- Be an active participant in the Family Health Section Data Team, which meets biweekly and includes the CDC Assignee (primary mentor), FHS Epidemiologist/Evaluator, SSDI coordinator, children and youth with special health care needs epidemiologist, the PRAMS project director, the newborn screening data integration specialists, and the Zika surveillance coordinator.
- Participate in the following additional meetings: DPH Epidemiology Seminars (monthly); Family Health Section meetings (monthly); BCHP-wide meetings (quarterly); Preparedness meetings and trainings (as appropriate)
- Attend weekly progress meeting with mentors (2-4 hr/wk as specified, minimum)
- Attend and make at least 1 presentation in a learning session at DPH or with a partner organization
• Attend weekly public health seminars at UWSMPH as applicable
• Choose one or more epidemiologic surveillance, program evaluation, or policy development projects and follow it/them from development to investigation to data collection to analysis to report or manuscript completion
• Become comfortable with indicator development, database linkage, GIS mapping, and evidence-based public health
• Participate in policy development and implementation

Potential Projects

Surveillance Activity  Infant Mortality Surveillance Through a Perinatal Periods of Risk (PPOR) Analysis

Wisconsin currently has the highest African American infant mortality rate in the country. In order to better address this issue, DHS is currently preparing to launch an enhanced effort focused on advancing equity in infant and family health. The key components of the effort will be data, coordination, community partnership, and policy/systems analysis. A Perinatal Periods of Risk (PPOR) analysis will provide valuable information to frame the activities of this initiative. PPOR will provide the opportunity for the fellow to investigate the causes of the infant mortality disparity in Wisconsin, using vital records data in Phase I and additional data sources, such as the Pregnancy Risk Assessment Monitoring System (PRAMS), in Phase II. Additionally, the fellow will be able to design multiple products for disseminating the PPOR results, including presentations, reports, and infographics.

Surveillance Evaluation  Maternal Mortality Review System

Maternal mortality is a key indicator of maternal health and the general state of health care. Maternal Mortality Review (MMR) programs provide important information about causes of pregnancy-related deaths and risk factors associated with these deaths. Wisconsin has a long-standing MMR program; however, it has not been formally evaluated. Starting with the review of 2011 events, Wisconsin began reviewing all pregnancy-associated cases, including those that had not historically been brought to the committee for review, such as those due to homicide, cancer, and motor vehicle crashes. The team has completed the review of 2015 cases in early 2019, and recently received a CDC grant to support more timely review of maternal deaths. A comprehensive evaluation of the approach of reviewing all pregnancy-associated cases is needed to help assure a timely review process moving forward.

Major Project  Comprehensive Assessment of The Perinatal Care System in Wisconsin (Including Both Maternal And Infant Care)

Wisconsin has selected "High-quality Perinatal Care" as one of its focus areas for the MCH Program for 2021-2025. Multiple partners in Wisconsin have a vested interest in the quality of care that Wisconsin women receive before, during, and after pregnancy, including the Department of Health Services, Wisconsin Perinatal Quality Collaborative, Wisconsin Association for Perinatal Care, the Maternal Mortality Review Team, and the University of Wisconsin's new Prevention Research Center. The fellow would have the opportunity to utilize multiple data sources to produce a comprehensive assessment of the quality and appropriateness of preconception, prenatal, perinatal, and postpartum care in the state, including birth records, hospital discharge data, physician licensure lists, the Linked Birth Outcomes
Surveillance System (LBOSS), and Medicaid claims data. Aspects of this work could include: comparing the WI-specific instrument for assessing levels of care to CDC's LOCATe (Levels of Care Assessment Tool); describing what types of providers Wisconsin mothers are seeing for their prenatal care and deliveries; utilizing GIS to understand patterns of transfer for women around the time of delivery; and assessing the level of obstetric care delivered by critical access hospitals.

Additional Project Creating A "Maternal and Infant Health Data Dashboard" Using Tableau

The fellow will work with state epidemiologists, demographers, and researchers to identify key indicators of maternal and infant health and support local health departments in making informed decisions by creating interactive dashboards that can be used by local agencies. This project requires the fellow to:

- Become familiar with vital records data in Wisconsin and appropriate analysis techniques
- Learn about key areas of interest in maternal and infant health in Wisconsin
- Learn and utilize Tableau software to build reports
- Learn and utilize data visualization best practices for both interactive and static report types
- Learn and use several software development techniques including requirements gathering, user testing through qualitative analysis, and iterative design

Additional Project Action-Oriented PRAMS Analysis and Dissemination

Wisconsin has a strong history of using data from the Pregnancy Risk Assessment Monitoring System (PRAMS) for public health action. This has included a local oversample to assist with planning and evaluation of programming to reduce disparities in birth outcomes and using data on multivitamins to help change Medicaid policy on coverage of folic acid supplements. In collaboration with the PRAMS team, the fellow will have the opportunity to work with partners to design a PRAMS data analysis and dissemination project.

Preparedness Role

The fellow will participate in ICS training and certification activities and will be assigned a specific role in the event of an incident, such as an environmental spill, pandemic flu outbreak, fire, weather, or other emergency, especially as it affects the MCH population. If interested, the fellow could also identify a preparedness project focusing on special populations, such as children, pregnant women, CYSHCN, individuals with chronic diseases and disabilities, low-income populations, or those with limited English proficiency. Previous fellows have had the opportunity to participate in trainings, contribute to the Ebola and H1N1 responses at federal and state levels, and attend table top and field exercises.
Additional Activities

Optional available activities include: assess and track health indicators for special populations, such as Amish and Mennonite families in Wisconsin or Children and Youth with Special Health Care Needs (CYSHCN); develop measurements for the perinatal, child, or adolescent quality collaboratives; use small area estimation statistical techniques (e.g., multi-level regression modeling) to generate county-level estimates for MCH indicators; develop and create new surveillance reports; collaborate with Opioid Harm Prevention Program on issues affecting infants and families; create GIS maps and conduct spatial analyses for MCH issues; identify opportunities for incorporating qualitative data analysis; provide analytic support to program activities focused on reducing health disparities.

Mentors

Primary  Angela Rohan MA, PhD
          CDC Assignee / Senior Maternal and Child Health Epidemiologist

Secondary Fiona Weeks MSPH
             MCH Epidemiologist / PRAMS Project Director