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 and the Opioid Harm Prevention program. 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 has identified new 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 6 full-time epidemiologists specializing in various areas of Family Health. These individuals, along with students from the University of Wisconsin School of Medicine and Public Health (UWMSPH) 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 (secondary mentor), SSDI coordinator, children and youth with special health care needs epidemiologist, the PRAMS project director, and the opioid harm prevention epidemiologist.
- Participate in the following additional meetings: DPH Epidemiology/Data Working Group meetings (monthly); Family Health Section meetings (monthly); BCHP-wide meetings (2x/yr); 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 UWMSPH 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**

**Contraceptive use**

**Activity**

Wisconsin has selected use of a most or moderately effective contraceptive method as a state performance measure for its Title V Maternal and Child Health Block Grant. This includes the use of long-acting reversible contraceptives (LARCs). Appropriate birth spacing and reduction in unintended pregnancies are important for improving maternal and infant outcomes. A key surveillance activity will be using Medicaid claims data to monitor statewide performance and change on this indicator. In addition, Wisconsin has recently added a family planning module to the Behavioral Risk Factor Survey (BRFS) which will be available for analysis in 2017, and the Pregnancy Risk Assessment Monitoring System (PRAMS) includes questions on postpartum contraceptive use. Wisconsin (in partnership with the University of Wisconsin School of Medicine and Public Health) also conducted a survey of health care providers in 2015 with a focus on provider experiences, knowledge, and barriers to use of LARC and immediate postpartum LARC with their patients; this survey provides many analytic opportunities for identifying avenues for increasing uptake of most or moderately effective contraceptive methods.

An examination of special populations is especially needed, such as racial/ethnic minority groups, opioid users, postpartum women, and women with potential Zika exposure. Key partners on this work include the Centers for Disease Control and Prevention, the Office of Population Affairs, the University of Wisconsin School of Medicine and Public Health, and reproductive health/family planning clinics.

**Surveillance**

**Maternal Mortality Review System**

**Evaluation**

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 MMR program; however, it has not been formally evaluated. Three recent changes to the program have enhanced the need for a comprehensive evaluation of this surveillance system.
First, the Office of Health Informatics (OHI) is changing how they will identify cases to be given to the MMR coordinator. In addition to using the pregnancy checkbox indicator on the death certificate to identify decedents who were pregnant at the time of death or in the prior year, OHI will now be conducting an automatic nightly linkage of death certificates for women of reproductive age to birth and fetal death certificates.

Second, the MMR committee is in the process of piloting review of pregnancy-associated cases that have not historically been brought to the committee for review, such as those due to homicide, cancer, and motor vehicle crashes; the success of this pilot effort has yet to be assessed.

Third, the Wisconsin MMR program recently transitioned from a Microsoft Access database to a web-based database on the REDCap system. In 2017, CDC will be launching a new MMR data system; program staff will be looking for guidance on whether to continue use of the REDCap system or adopt the new CDC-developed system.

**Major Project**  
**Examining postpartum visit rates and opportunities for improvement**

The postpartum visit is an important opportunity for women to get reconnected to primary care following delivery. The postpartum visit also is a key contact point to assure successful breastfeeding, contraceptive planning, and healthy pregnancy spacing. The Wisconsin Pregnancy Risk Assessment Monitoring System (PRAMS) estimates that over 90% of mothers on Medicaid report having a postpartum visit. However, other sources report estimates closer to 60%. It is not clear whether women are confusing other types of health care encounters in the postpartum period with an actual postpartum visit. There is a need to better understand the true prevalence of mothers having a postpartum visit and when they occur. Wisconsin PRAMS data have been linked to Medicaid claims data, which allows a unique opportunity to test the validity of the postpartum visit responses in PRAMS against claims during that time on an individual level.

This project will provide the opportunity to use complex survey data, as well as work with Medicaid eligibility and claims files. Additional opportunities to analyze postpartum visit data include: new PRAMS question on barriers to accessing postpartum visit (available in 2018), a quality improvement initiative with HMOs to increase postpartum visits as part of the national Infant Mortality Collaborative Improvement and Innovation Network (CoIIN), and an upcoming quality initiative on postpartum visits through the Wisconsin Perinatal Quality Collaborative.

**Additional Project**  
**Zika virus, pregnancy, and birth defects**

Zika virus infection during pregnancy is associated with miscarriage, microcephaly, other birth defects, and even later-emerging complications for infants. The response to Zika includes a number of new surveillance mechanisms. Wisconsin is participating in the US Zika Pregnancy Registry to follow up on the maternal and infant outcomes of women with laboratory evidence of Zika infection during or around the time of pregnancy. A rapid case ascertainment process is also being developed to identify and refer infants affected with anomalies associated with Zika virus infection. There are
multiple opportunities for a fellow to participate in Zika surveillance and response activities, including case follow-up, evaluation of surveillance processes, assessment of data quality and completeness, and analysis of surveillance data. This project would provide the opportunity to collaborate with unique partners such as the Wisconsin Council on Birth Defect Prevention and Surveillance, the Bureau of Communicable Diseases, the Office of Preparedness and Emergency Health Care, and the Centers for Disease Control and Prevention Zika Pregnancy and Birth Defects team.

Additional Project

Mental health and substance use issues in MCH populations

Mental health and substance use issues have become a focus for many state health departments, including Wisconsin where 4 of the 5 priority health issues identified by the Wisconsin Health Improvement Planning Process fall in this category (alcohol abuse, opioid abuse, suicide, and tobacco). Wisconsin has also partnered with the Illinois Department of Public Health and the University of Illinois and Chicago to develop an index to track mental health and substance use (MHSU) hospitalizations among women of reproductive age. These topics are especially relevant for MCH populations, and Wisconsin has a rich set of datasets available to examine these issues in depth to uncover risk factors and point to opportunities for prevention.

Key issues and relevant available data sets include:

1. hospitalizations for mental health, substance use, and self-harm during pregnancy and postpartum using a data set of hospital discharge records linked for the same person across time
2. MHSU hospitalizations among subpopulations of women, such as tribal communities, using hospital discharge data
3. examination of contraceptive use and risk for pregnancy among women using opioids by looking at Medicaid claims data; this project would provide the opportunity for the fellow to collaborate with the Opioid Harm Prevention Program, the Division of Mental Health and Substance Abuse Services, and many other partners

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. Wisconsin is currently in partial ICS activation for Zika, and both the primary and secondary mentors are actively involved in this response. 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 (e.g., adolescent health, birth defects); create GIS maps and conduct spatial analyses for MCH issues; use NVIVO software to assist with analysis of focus group data; provide analytic support to program activities focused on reducing health disparities.

**Mentors**

**Primary**

Angela Rohan, PhD, MA  
Senior MCH Epidemiologist / CDC Assignee

**Secondary**

Jessica Seay, MPH  
State Systems Development Initiative (SSDI) Coordinator