ID: 73659664
Maternal and Child Health - Host Site Description
Wisconsin Department of Health Services

Assignment Location: Madison, US-WI
Wisconsin Department of Health Services
Division of Public Health/Bureau of Community Health Promotion

Primary Mentor: Emily Morian-Lozano, MPH, MSW n
Data and Evaluation Unit Supervisor
Wisconsin Department of Health Services

Secondary Mentor: Charissa Fritzen-Pedicini, MSPH
WIC and Nutrition Epidemiologist
Wisconsin Department of Health Services

Work Environment
Hybrid

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), maternal health innovation, and maternal and infant mortality prevention. The Wisconsin Maternal and Child Health program has been recognized as an innovator in health promotion and systems change. Most recently, Wisconsin was awarded the Maternal Health Innovation grant, which focuses on reducing maternal mortality and morbidity through innovative care and data dissemination activities.

The WIC and Nutrition Section is also located within the BCHP in DPH, and houses a variety of nutrition programs, including the Women, Infants, and Children Program (WIC). WIC is a federal program funded by the USDA Food and Nutrition Service, and helps families stay healthy by providing nutrition education, breastfeeding support, healthy foods, and referrals to health services and other resources. WIC serves those who are pregnant, breastfeeding, or postpartum, as well as infants and children up to age five. The WIC and Nutrition Section also includes the WIC and Senior Farmers Market Programs, which provide WIC participants and Seniors with resources to spend at farmers markets, the Supplemental Nutrition Assistance Program-Education (SNAP-Ed), which helps those with limited incomes make healthy food choices and be physically active, the Commodity Supplemental Food Program (CSFP), which provides free monthly food packages to low-income adults aged 60 years and older, and The Emergency Food Assistance Program (TEFAP), which is a federal program that provides food assistance to those with low incomes. The WIC and Nutrition section has partnerships with other programs within BCHP, including MCH, the Home Visiting Program, and reproductive health, as well as local health departments, tribal agencies, and community-based organizations.

This placement will provide the Fellow with the opportunity to work on a diversity of available projects. The proposed surveillance projects will allow the fellow to become familiar with robust datasets (WIC program data, vital records), and work with partners across DPH to develop a Data Use Agreement (DUA) create a linkage between these datasets. FHS Data Team members have extensive experience conducting surveillance evaluations, and will be available to support the Fellow in this project. The proposed projects will allow the Fellow to take advantage of the rich data sources, as well as leverage community partnerships to impact public health practice.

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

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to all areas of epidemiology, program evaluation, and disease surveillance in FHS, which has eight 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 (UWMSPH) and a number of Fellows and trainees, make up a learning community that contributes to public health workforce development.

The Fellow will work closely with the mentors and other staff members daily through project meetings. They will be provided the opportunity to work both independently and as part of a team, as well as to take the lead on projects. The mentors will also identify opportunities for the Fellow to attend other meetings as an observer to understand more about how applied epidemiology fits in to the overall work of the Division of Public Health. Additional activities include:

- Be an active participant in the Family Health Section (FHS) Data Team, which meets monthly and includes the data and evaluation unit supervisor (primary mentor), WIC and nutrition section epidemiologist (secondary mentor), Title V epidemiologist/evaluator, children and youth with special health care needs epidemiologist, PRAMS project director and MHI Epidemiologist, reproductive health and family planning epidemiologist, newborn screening data integration specialist, maternal health epidemiologist, behavioral health epidemiologist, and other Fellows.
- Participate in the following additional meetings: Division-wide Epidemiology Seminars and events; Family Health Section meetings (monthly); Epidemiology Seminar (monthly); WIC and Nutrition Section meetings (weekly); WIC local agency regional meetings (quarterly); National WIC Association webinars (as appropriate); USDA-Food and Nutrition Service (FNS) webinars (as appropriate); data and evaluation unit meetings (monthly) Bureau-wide meetings (quarterly); Preparedness meetings and trainings (as appropriate); SAS and GIS user group meetings according to Fellow interest
- 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
- 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

Describe Statistical and Data Analysis Support, Such as Databases, Software, and Surveillance Systems Available to the Fellow

In addition to the mentors, the fellow will have access to statistical and data analysis support through other epidemiologists, the FHS Data Team, the Office of Health Informatics, and nearby university training, staff, and resources. Datasets to which the fellow will have access include, but are not limited to:
- WIC Program Data System (ROSIE)
- Maternal Mortality Review Information Application (MMRIA) data
- Behavioral Risk Factor Surveillance System
- Youth Risk Behavior System
- Vital statistics data (birth, death, fetal death, linked infant birth/death files)
- Maternal Registry (linked births to the same mother across time)
- Hospital discharge and emergency department data
- Medicaid claims data
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- Wisconsin Family Health Survey
- Wisconsin Violent Death Reporting System
- Child Death Review Case Reporting System

Software to which the fellow will have access include but are not limited to:
- SAS

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- ArcGIS software
- Tableau

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Projects

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Surveillance Activity Title: Birth Record-WIC Program Data Linkage

Surveillance Activity Description:
While the WIC program has access to robust program data, it can paint an incomplete picture of a birthing person's health outcomes. For this project, the Fellow will have the opportunity to link two robust data sources: vital records (birth record) and the WIC program data system (ROSIE). The Fellow will be able to work with partners across DPH to develop a Data Use Agreement, determine the best methodology and software to use for the linkage, then execute and perform quality checks on the linked dataset. This linkage will allow the Fellow to gain a deeper understanding of both vital records and WIC program data, while advancing their analytic skills throughout the linkage process. The linked dataset will then allow the Fellow to analyze perinatal and birth outcomes for WIC participants compared to non-WIC participants. The Fellow will have the opportunity to create a detailed report with findings that can be shared with multiple programs within DPH, as well as with community partners. Aspects of this work could include ascertaining concordance between birth and WIC records, comparing WIC and non-WIC participant perinatal and birth outcomes (including prenatal WIC participation, prenatal care, pregnancy risk factors, Medicaid coverage, gestation at delivery, adequate gestational weight gain, and low birth weight), determining trends by geography, race and ethnicity, education, etc.

Surveillance Activity Objectives:
Objectives: Successfully link birth records to WIC records, analyze perinatal and birth outcomes for births for WIC participants compared to non-WIC participants, and ascertain concordance between birth and WIC records.

Deliverables: Deliverables will include the linked dataset, documentation of linkage methodology, a summary of data concordance between the two data sources, and may also include a data product describing the results of the perinatal and birth outcomes analysis for WIC participants vs. non-WIC participants.

Surveillance Activity Impact:
Analytic findings will be used to inform efforts of the WIC program, Title V MCH program, Maternal Health Innovation, and disseminated to key partners, such as the Wisconsin Perinatal Quality Collaborative, for their use. Additionally, the linked dataset will have a lasting impact on the program's ability to understand the characteristics and needs of the WIC population, and will provide opportunities for more robust and targeted analyses to support programmatic work.

Surveillance System Evaluation Title: Evaluation of WIC Data System (ROSIE)

Surveillance System Evaluation Description:
The WIC program serves over 140,000 participants per year, including over 38,000 pregnant or postpartum participants and 25,000 infants. The WIC data system (ROSIE), houses the program's administrative and health data. The data system is robust and undergoes regular modifications to adjust to WICs shifting programmatic requirements and priorities. For example, the WIC program shifted from in-person only appointments to a mixture of remote and in-person appointments due to the COVID-19 pandemic. This programmatic change, among others, required adjustments to how the WIC program collected and documented programmatic and health information. A comprehensive evaluation of the data system is needed to understand the baseline quality of the data source, and how shifting database needs affect data quality. Moreover, the USDA-FNS has identified database modernization as a priority for the WIC program, and an evaluation will provide valuable information for planning database modernization efforts. After becoming familiar with

the database's structure and capabilities, the Fellow will be responsible for incorporating the CDC's framework for evaluating public health surveillance systems and produce a report of their findings. This process will require the Fellow to engage WIC program staff and partners, design an evaluation plan, assess the performance of ROSIE, and share the findings of their evaluation with key stakeholders. Additionally, the Fellow will have the opportunity to use the evaluation results to propose enhancements to the database's existing structure to improve data quality.

Surveillance System Objectives:
Objectives: Conduct a comprehensive evaluation of ROSIE data system, write up and communicate evaluation findings to multiple audiences, including WIC program state and local staff.

Deliverables: Comprehensive report outlining the results of the ROSIE evaluation, including proposed enhancements to ROSIE's database structure, data collection methods, or system change processes.

Surveillance System Impact:
Data and reports from the WIC program are utilized by the WIC program, other DPH programs, local and tribal health departments, and researchers locally and nationwide. Verifying and improving the quality of this data can result in better data resources to assess the health of young families. Quality data and reports will be useful for the WIC program and partners who work to improve the health of pregnant and postpartum people, infants and young children in Wisconsin.

Major Project Title: Factors Contributing to Inequity in Maternal Mortality and Morbidity in Wisconsin

Major Project Description:
Previous reports on maternal mortality and morbidity in Wisconsin have described stark inequities by race, with non-Hispanic Black birthing people having more than two times the pregnancy-related mortality ratio and nearly two times the rate of severe complications compared to non-Hispanic White birthing people in Wisconsin. However, these analyses have not assessed the factors contributing to these inequities. The major project will include an in-depth analysis and reporting of these inequities, including a cause-specific analysis of maternal deaths and birth complications; an examination of prevention recommendations needed to reduce inequities; and linkage to additional data sources (census, justice, education, and local health care and other resources) to provide a picture of the socioeconomic community context in which maternal deaths occur. The fellow will have the opportunity to work with internal, external, and community partners in the development of this project and dissemination of the findings. Additionally, the fellow will be able to design multiple dissemination products, including presentations, reports, and infographics. This project will be influential for public health practice, policymaking, and community-based efforts to reduce racial health inequities in Wisconsin.

Major Project Objectives:
Objectives: Identify and describe the root causes of inequities in maternal mortality and morbidity in Wisconsin.

Deliverables: Report and accompanying presentation

Major Project Impact:
Report findings will be used to inform efforts of the Title V MCH program, Maternal Health Innovation program, and disseminated to key partners, such as Wisconsin ACOG, the Maternal Health Task Force, and the MMR Impact Team, for their use.

Additional Project #1 Title: Severe Maternal Morbidity—Renal Failure Analysis
Project #1 Type: Surveillance Activity

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Project #1 Description:
A recent analysis of severe maternal morbidity in Wisconsin revealed that the rate of renal failure during or after delivery has increased significantly over time. Renal failure is also Wisconsin's leading SMM. This project will aim to understand what is contributing to this increase, including breaking the data down by demographic factors and/or facility, and researching coding policies that might be impacting the results.

Project #1 Objectives and Expected Deliverables:
Objective: understand what is contributing to the increase in renal failure during or after delivery

Deliverables: written report and presentation

Project #1 Impact:
This information will be shared with birthing hospitals, providers, and the Wisconsin Association of Perinatal Care.

Additional Project #2 Title: Maternal Health Care Access—Geographic Analysis
Project #2 Type: Surveillance Activity

Project #2 Description:
Wisconsin has experienced a number of birthing hospital closures in recent years, often in rural areas. This analysis will aim to understand the landscape of maternal health care access, particularly in the areas with recent facility closures. This analysis will involve mapping resources and using geospatial analytic methods to understand the accessibility of those resources, and how the results might impact maternal and child health outcomes.

Project #2 Objectives and Expected Deliverables:
Objective: understand the current state of maternal health care access across the state, and identify potential impacts of birthing hospital closures

Deliverables: written report and mapping tool

Project #2 Impact:
This information will be shared widely with partners, including the Wisconsin Association for Perinatal Care, Wisconsin Collaborative for Healthcare Quality, and major hospital systems around the state.

Please Describe the Fellow's Anticipated Role in Preparedness and Response Efforts – Include Activities and Time Allocation (Required Competency of Fellowship)

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 responses at federal and state levels, and attend table top and field exercises. Additionally, Wisconsin has been working to improve the readiness of MCH staff to participate in preparedness and response efforts, and the fellow will have a role in continuing these efforts. The time allocation is flexible based on the fellow's interests.

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Please Describe the Fellow's Anticipated Role in Cluster and Outbreak Investigations – Include Activities and Time Allocation (Required Competency of Fellowship)

As soon as a new CSTE fellow starts in Wisconsin, we connect them to our colleagues in the Bureau of Communicable Diseases, who have also hosted multiple CSTE Applied Epi Fellows. This way the BCD team is able to reach out to the fellow as opportunities arise to participate in an outbreak investigation. Activities generally include participating in outbreak team meetings, conducting interviews, creating line lists and analyses, and writing up investigation reports. Fellows usually shift to working primarily on the outbreak when assigned, often for 1-2 weeks. In the past fellows have worked on investigations such as a miscarriage cluster, illness due to raw milk, and responses for flu, Zika, and COVID-19.