

ID: 46252544

Maternal and Child Health - Host Site Description
Connecticut Department of Public Health

Assignment Location: Hartford, US-CT
Connecticut Department of Public Health
Community, Family Health and Prevention Section

Primary Mentor: Katharyn Baca, PhD, MPH, MA
CDC Maternal and Child Health Epidemiology Assignee to Connecticut
Connecticut Department of Public Health

Secondary Mentor: Lisa Budris, MS, MPH
Epidemiology 3
Connecticut Department of Public Health

Work Environment

Hybrid

Assignment Description

The Fellow will be placed within the Maternal and Child Health (MCH) Epidemiology (Epi) unit within the Community, Family Health and Prevention Section (CFHPS) at the Connecticut Department of Public Health (DPH). The CFHPS works to improve the health of the overall population across the lifespan, especially mothers, infants, children, adolescents and other vulnerable groups, by establishing opportunities that support healthy living habits through education, injury and disease prevention, early detection, and access to care.

The MCH Epi unit consists of the following offices, programs, and units: Office of Oral Health data support, Birth Defects Registry (BDR), Maternal and Child Health Services Block Grant (MCH Block Grant), School Based Health Centers Data Support, Access Health Programs, Planned Parenthood / Family Planning data support, Children and Youth with Special Health Care Needs Data Support, Pregnancy Risk Assessment Monitoring System (PRAMS), State Systems Development Initiative (SSDI), Maternal Mortality Review (MMR) Program data support, and Family Wellness Healthy Start data support.

The Fellow's expected day to day activities includes supporting initiatives of the MCH Epi unit, including attending and participating in meetings and workgroups, sharing data with internal and external partners, evaluation of programs or surveillance systems, and conducting studies in SAS or R. The Fellow will also have opportunities to respond to data needs of internal or external partners. The Fellow will have the opportunity to meet and work with people in the various areas of MCH Epi unit, including PRAMS, SSDI, BDR, MMR, and MCH Block Grant. Additionally, the Fellow will be sitting in biweekly meetings with Infectious Diseases Unit and participate in trainings throughout their fellowship.

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

The Fellow will have an opportunity to access the following databases: Pregnancy Risk Assessment Monitoring System (PRAMS), birth, fetal death, and death data, CT Hospital Association's CHIME data, Reproductive Justice Alliance Qualitative data, and Maternal Mortality Review Information Application (MMRIA).

The Fellow will have access to various software for analysis and/or data visualization, including SAS, SAS Enterprise Guide, R, JointPoint, Canva pro, Geographic Information System (GIS), NVivo, and Microsoft Teams.

ID: 46252544

**Maternal and Child Health - Host Site Description
Connecticut Department of Public Health**

Surveillance Systems that may be made available to the Fellow includes the Birth Defects Registry and EpiCenter (syndromic surveillance).

Projects

Surveillance Activity Title: Surveillance of Home Births in Connecticut

Surveillance Activity Description:

Nationally, home births as a percentage of all births in 2020 rose by 22% to their highest level since 1990, accounting for 1.26% of all births last year compared with 1.03% in 2019. It is important to monitor trends in home births in CT due to the potential increased burden to programs, like Newborn Screening. For this project, the fellow will use birth data to determine trends of home births overtime, as well as by various demographics and characteristics. These may include maternal age, maternal race and ethnicity, county, and payer type at delivery.

Changes over time may show the impact of COVID-19 on home births. The goal of this activity is to help provide data on home births to DPH as well as partners.

Surveillance Activity Objectives:

The overall project objective is to describe trends and patterns in home births in CT for internal and external partners. To achieve this objective, the following steps and deliverables are expected:

- Review current literature on home births.
- Obtain a data use agreement to utilize birth data.
- Create an analytic plan.
- Conduct analysis.
- Synthesize results into a report and presentation.

Surveillance Activity Impact:

This analysis will be informative to internal partners in newborn screening and birth defects registry, as well as external partners like the CT Reproductive Justice Alliance. Knowing the trends in home births can help identify areas to reduce burden on programs like Newborn Screening. Additionally, understanding the risk profile, geographic distribution, and characteristics of women with home births can guide efforts in public health.

Surveillance System Evaluation Title: Evaluation of using syndromic surveillance for MCH

Surveillance System Evaluation Description:

The Connecticut Department of Public Health (CT DPH) uses an electronic syndromic surveillance reporting system called EpiCenter, which is used for the reporting of Emergency Illnesses and Conditions. The required reporting of Emergency Illnesses and Health Conditions by healthcare providers, which include healthcare facility managers, is done in accordance with the DPH's annual List of Reportable Diseases, Emergency Illnesses and Health Conditions in a format approved by the Commissioner. DPH has not evaluated the use of EpiCenter for emerging issues in MCH. Therefore, the fellow will be asked to evaluate post-partum events, mental health services during pregnancy, or some other emerging issue in MCH, to determine the quality of the information for MCH purposes.

Surveillance System Objectives:

The overall project objective is to determine the utility of EpiCenter for emerging issues in MCH. To achieve this objective, the following steps and deliverables are expected:

- Review current literature on the chosen topic, including information on the current guidelines and recommendations.

ID: 46252544

**Maternal and Child Health - Host Site Description
Connecticut Department of Public Health**

- Create an evaluation plan.
- Obtain a data use agreement to utilize the EpiCenter data.
- Conduct analysis.
- Create a report summarizing findings of the evaluation and recommendations for next steps (such as adding new modules).

Surveillance System Impact:

COVID-19 has shown that receiving data quickly is important to identify potential emerging issues. This includes emerging issues in MCH. Syndromic Surveillance is currently not used to identify emerging issues in MCH at DPH. This pilot evaluation will inform the agency on the value of using this source for identifying emerging issues in MCH and will inform potential next steps.

Major Project Title: Risk factors for maternal morbidity using PRAMS data

Major Project Description:

Maternal morbidity is any health condition attributed to and/or aggravated by pregnancy and childbirth that has negative outcomes to the woman's well-being. An in-depth analysis of these health conditions with datasets like PRAMS data may help highlight opportunities for improvement. The Fellow will have the opportunity to decide on a health condition to focus on for this major project. They will be able to use hospital discharge data to identify deliveries impacted by the health condition and link the data to PRAMS data. The linked data will be used to identify risk factors that could not be identified with one dataset alone. Topic areas include hospitalizations for maternal substance use, mental health disorders, renal failure, etc.

Major Project Objectives:

The overall project objectives are for the Fellow to gain experience in applied epidemiology research using data linkages and to identify CT-specific data on risk factors for the chosen topic.

To achieve this objective, the following steps and deliverables are expected:

- Review current literature on the topic area.
- Create an analysis plan.
- Obtain a data sharing agreement to utilize birth variables in PRAMS data.
- Conduct a data linkage between hospital discharge data, birth, and PRAMS data.
- Create a report summarizing findings of the analysis.
- Share results with internal and external partners.
- Create an abstract for CSTE conference.
- If interested, create a manuscript for publication.

Major Project Impact:

This analysis will help identify risk factors that could not be identified with CHIME, birth, or PRAMS data alone. The Fellow will have an opportunity to share results with external and internal partners. Such sharing with partners can lead to impact by identifying CT-specific data on risk factors for the chosen outcome. The findings can be used in trainings and help guide efforts in improving health of pregnant people in CT.

ID: 46252544

**Maternal and Child Health - Host Site Description
Connecticut Department of Public Health**

Additional Project #1 Title: Qualitative Research on Respectful Maternity Care in Connecticut

Project #1 Type: Major Project

Project #1 Description:

As part of the Connecticut Reproductive Justice Alliance (Alliance), Connecticut Department of Public Health is conducting qualitative research to evaluate maternity care in Connecticut (CT). The Alliance has identified qualitative research in the form of focus group discussions (FGDs) and in-depth interviews to be important steps to better understand activities needed to improve access to respectful maternity care in CT. Currently, CT is conducting the FGDs with people who are Black and/or Hispanic/Latino who had a recent delivery to better understand the experiences and barriers for birthing people in CT. The research will add to existing knowledge by specifically looking at experiences of disrespectful care in CT. If the fellow is proficient in Spanish, they may have the opportunity to facilitate FGDs in Spanish, dependent on the status of the FGDs by the fellow's start date. After the FGDs, in-depth interviews with staff from maternity care facilities are planned to better understand respectful maternity care from the staff perspective. The fellow will have the opportunity to co-create interview materials and the Human Investigations Committee application, conduct interviews, and/or assist in data management and analyses. The results of the FGDs and the in-depth interviews will be used to develop a strategic plan with activities that will aim to improve respectful maternity care in CT, and ultimately reduce maternal mortality and morbidity.

Project #1 Objectives and Expected Deliverables:

- If applicable, conduct focus group discussions in Spanish.
- Co-create materials, including interview questions.
- Co-develop the Human Investigations Committee application.
- Assist in conducting in-depth interviews with staff from maternity care facilities.
- Assist in the data management, analyses, and interpretation of the data.
- Use data to develop strategic planning around improving respectful care.

Project #1 Impact:

Centers for Disease Control and Prevention recommends respectful maternity care to reduce maternal mortality and morbidity. The project that is outlined will help CT better understand the necessary activities needed to improve respectful care from providers and staff during pregnancy, at delivery, and postpartum.

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

The Fellow will have an opportunity to help integrate MCH in emergency preparedness. As part of SSDI, the MCH Epi unit will identify and utilize a tool like the Public Health Emergency Preparedness and Response Checklist for Maternal and Infant Health and response checklist to help integrate MCH in emergency preparedness. The fellow will have the opportunity to participate in activities related to the checklist. Additionally, the Fellow will be encouraged to participate in an emergency preparedness trainings and tabletop exercises at DPH.

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

The State Epidemiologist has experience with providing CSTE fellows placed in CT with opportunities to have a role in outbreak investigations in Infectious Diseases (ID). Likewise, the prospective Fellow will be asked by ID to assist in an outbreak investigation. They will be asked to assist in the development of a case definition and questionnaire and collection of the data. The Fellow may also assist in performing descriptive epidemiology of the data collected,

ID: 46252544

**Maternal and Child Health - Host Site Description
Connecticut Department of Public Health**

development of a hypothesis, and analyze and synthesize the findings. Communication of findings and providing control and prevention measures will also be considered. Dependent of the outbreak and activities, the outbreak investigation will take 1-2 months to complete.

The Fellow will participate in weekly foodborne disease team meetings which will keep them abreast of current cases and clusters under investigation.

Please Describe the Fellow’s Anticipated Role in the COVID-19 Response – Include Activities and Time Allocation

For COVID response, the Fellow will have an opportunity to participate in the Viral Respiratory Disease Outbreak Team meetings which occur biweekly. Additional opportunities may be dependent on resurgence of COVID-19.

Please Describe Opportunities for Fellows to Work in Health Equity as well as Incorporating Diversity, Equity, and Inclusion into their Work

There will be opportunities to participate in equity-related trainings to ensure that data is consistently presented with a health equity lens. Additionally, the Fellow will be encouraged to use health equity tools to take a structured approach to improve the use of data to inform equity work in MCH programs. They will also be encouraged to develop products (e.g., data books, fact sheets, infographics, dashboards, journal articles, etc.) using health equity and social/structural determinants of health metrics that enhance CT’s MCH data capacity and facilitate informed decision-making to drive improved MCH outcomes and achieve equity.

Additionally, the Fellow will be invited to participate in respectful maternity care research that the CT DPH is conducting with the CT Reproductive Justice Alliance.