Maternal and Child Health

Columbus Public Health, Population Health Division; Office of Epidemiology

Columbus, Ohio

Assignment Description

The Fellow will be a part of Columbus Public Health’s Office of Epidemiology, a 12-person team within the department’s Population Health Division. The Fellow will be assigned to the Maternal and Child Health Epidemiology Unit but will have the ability to perform work with the Community Assessment Epidemiology Unit, and the Surveillance and Informatics Epidemiology Unit. The MCH Epidemiology Unit focuses on programs with the Maternal and Child Health Section, the Sexual Health Promotion Program and the Health Equity Section. However, The Office of Epidemiology supports programs throughout the health department with data collection, management, analysis, and reporting.

The Fellow will support all aspects of data collection, analysis, translation, and evaluation within the department, to include monitoring of various MCH data systems, tracking and investigating birth outcomes and their determinants, completing literature reviews to remain current on MCH best practices, and supporting internal and external partners with data requests, program planning and evaluation, and data-driven decision making. The Fellow may provide health education and health promotion support to programs and services as requested. The Fellow will also participate in infectious disease investigations and emergency preparedness activities.

The Fellow will be mentored by Epidemiologist Emily Alexy and Epidemiologist Supervisor Suellen Bennett. Alexy and Bennett have nearly 25 years of experience in applied epidemiology. Both are current CSTE mentors and have had the pleasure of mentoring other epidemiologists and interns previously.

Day-to-Day Activities

The Fellow will join the Office of Epidemiology at 240 Parsons Avenue in the historic Old Towne East district near downtown Columbus. The Fellow will fully participate in the day-to-day activities conducted by the Office of Epidemiology staff; including analyzing data, writing reports, and using data visualization software to communicate results; designing and implementing a mixed methods research project; program evaluation and quality improvement projects; and survey creation, data collection, and analysis. The Fellow will also have the opportunity to participate in outbreak investigations, and emergency preparedness activities. In addition, he/she will participate in conference calls with local and national partners; attend office, division, and departmental meetings; and participate in a variety of learning opportunities ranging from in-person classes, to webinars, to emergency preparedness exercises.
**Potential Projects**

**Surveillance Activity  Health Equity and Birth Outcomes**

The Maternal and Child Health Epidemiology Unit at Columbus Public Health provides support to CelebrateOne, a public/private collaborative city-wide project to reduce infant mortality and the racial health disparity gaps in birth outcomes. The Fellow will examine a variety of MCH data sources (including qualitative data from FIMR interviews and data collected by CelebrateOne Community Connectors) and produce a report examining the factors, including the social determinants of health and structural racism, that influence the racial gap in birth outcomes and suggest possible interventions.

**Surveillance Evaluation  Neonatal Abstinence Syndrome (NAS) Surveillance**

The incidence of NAS has increased dramatically in the United States since 2000. According to the CDC, a baby was born with NAS every 15 minutes in 2014. NAS reporting is mandated in Ohio, however, surveillance in Ohio depends on hospital discharge data. The Fellow would examine the case definition local hospitals use, data quality, the type and number of surveillance data elements and how CPH/Franklin County uses NAS surveillance data. The final report will focus on findings and recommendations for improvement.

**Major Project  Improving the Quality of Maternal and Child Health Home Visiting Services**

Columbus Public Health houses multiple MCH home visiting programs, with funding sources that include a federal Healthy Start grant, the Ohio Department of Medicaid, and the Ohio Department of Health. These programs use different models but have the shared objective of improving the health of mothers, babies, and families. All CPH MCH home visiting programs refer potential clients to each other in order to best meet the needs of each family, and also refer to other CPH programs as needed, including Cribs 4 Kids, WIC, Baby & Me Tobacco Free, and car seat distribution. This project will involve implementing quality improvement projects within each home visiting program, as well as evaluation of the home visiting programs overall. Some of the desired outcomes include improved data integration within and between programs, more efficient processes for reporting and evaluation, and a better understanding of the program models and features that best meet the needs of our community.

**Additional Project  Community Connectors Quality Improvement Project**

Community Connectors are community health workers that live, learn, play, and age in the neighborhoods with the highest infant mortality rates. The Connectors are responsible for meeting pregnant women in various locations throughout the community and assisting with their connection to local resources. Funders, along with the Franklin County professional community as a whole, rely on the Connectors’ ability to deploy questionnaires and collect relevant data; the data they collect provides valuable insight into the issues impacting the community. To ensure the quality of these data, the fellow will work directly with the CelebrateOne epidemiologist to surveil the Connectors’ current data collection practices, assess any ongoing challenges with data quality, and provide continuous training to the Connectors to improve their self-efficacy with data collection and management.
**Additional Project**  
**Franklin County Fetal-Infant Mortality Review (FIMR) and Surveillance Quality Improvement Project**

To gain a better understanding of the factors contributing to local fetal and infant deaths, Columbus Public Health established the Franklin County Fetal-Infant Mortality Review (FIMR) Program in January 2014. At its core, FIMR is an evidenced-based continuous quality improvement process. In 2019, the FIMR team initiated a formal quality improvement project to improve the program’s internal processes and to better understand how the program’s recommendations to improve fetal-infant health are being implemented among community partners and stakeholders. The fellow will assist the FIMR team with this continued quality improvement project by assessing and confirming observations recorded in Plan-Do-Study-Act (PDSA) forms for each step of the FIMR process, making additional recommendations for process improvement, and working with the FIMR team to implement any necessary changes in addition to analyzing FIMR data and presenting recommendations to the community.

**Preparedness Role**

The Fellow will work with the Office of Emergency Preparedness and other epidemiologists on topics related to Emergency Preparedness and emerging infections. The Fellow will participate in Incident Command System (ICS) training courses as required by CPH. He/She will also participate in drills/exercises, and at least one statewide Public Health Emergency Preparedness (PHEP) meeting. Possible projects include an evaluation of current CPH preparedness plans to ensure the needs of MCH populations are adequately addressed; create, implement, analyze and report results of a survey of pregnant women about their level of preparedness; and/or assist the department in NACCHO’s separate Preparedness Accreditation if the Ohio Department of Health chooses to pursue it. The fellow will also provide support in any public health emergencies (i.e. novel influenza) that occur during the fellowship period.
**Additional Activities**

The fellow will be involved with other activities in the Office of Epidemiology that are deemed to be valuable for competency development or educational experience including collaborations with programs in the Family Health Division (e.g. Home Visiting, Safe Sleep, Fetal, Infant, and Child death reviews), Neighborhood Health Division (e.g. Chronic Disease and Health Equity), Clinical Health (e.g. Women’s Health Clinic, Sexual Health Clinic, Vaccine Preventable Disease Clinic, and STD Prevention) and other programs in the Population Health Division (e.g. Infectious Disease Investigation, Outbreak Response, Emergency Preparedness, and the Strategic Nursing Team). The Fellow will also have the opportunity to participate in a variety of community activities with CelebrateOne including neighborhood-based Coalitions working to address inequities in birth outcomes. Other potential activities include participation in local trainings, webinars, regional epidemiology meetings, and participating in the Ohio State University College of Public Health Summer Program in Population Health. The 2019 Course Schedule is available here: [https://u.osu.edu/cphp/summer-program/](https://u.osu.edu/cphp/summer-program/)

**Mentors**

**Primary**

Emily Alexy MPH  
Epidemiologist

**Secondary**

Suellen Bennett MSPH  
Epidemiologist Supervisor, Maternal and Child Health Epidemiology Unit