Maternal and Child Health

Assignment Description

In Ohio, almost 8 babies per thousand die before their first birthday; this is higher than the national rate of almost 7 and has not improved for more than a decade. Furthermore, there are marked disparities in birth outcomes when comparing racial, ethnic and geographic subpopulations. Black infants in Ohio die at a rate 2½ times more than white infants and have higher preterm birth rates. Recognizing this situation as unacceptable, the governor asked the Ohio Department of Health (ODH) to establish a task force to take a fresh look at the reasons behind Ohio's infant mortality and disparities. The resulting recommendations and strategies to prevent infant mortality and disparities were published in 2009 and established the Ohio Collaborative to Prevent Infant Mortality (OCPIM). The Collaborative and its workgroup's are comprised of ODH program, policy and epidemiology staff and also academic, public health, and clinical partners from across the state. The fellow would be a part of a team of ODH epidemiology and program and policy staff working to prevent infant mortality through OCPIM and related infant mortality initiatives. Through OCPIM, the fellow would become a member of the data/metrics workgroup which is focusing on improving the quality and use of data to support infant mortality reduction efforts. Several of Ohio's new (2011-2016) Title V block grant priorities relate to infant mortality (i.e. decreasing smoking, increasing breastfeeding, and improving physical activity and nutrition) and the fellow would contribute to developing epidemiologic capacity to support some or all of these priorities. ODH has a commitment to reducing health disparities and is a member of a national action learning collaborative (ALC) on racism and infant mortality. The fellow's work will contribute to the department's developing capacity to measure and study health disparities, racism, and the social determinants of health.

Columbus, Ohio is a growing, culturally diverse city with many excellent schools, including colleges and universities, and a variety of affordable housing options. Greater Columbus is a thriving metropolitan area of 1.8 million people (Columbus is the 16th largest city in the U.S.). It is home to The Ohio State University, four major healthcare systems, nightlife, family attractions, and diverse sporting events and cultural arts.

Day-to- Day Activities

The fellow's day to day activities will include contributing to infant mortality priorities of interest to the fellow. Activities include conducting special investigations, communicating within and outside of the department, and opportunities to participate in meetings, local conferences and site visits that will enrich the internship experience.

Specifically, the fellow could:

• Contribute to statewide efforts to prevent infant mortality by actively participating in the epidemiologic workgroup of a statewide collaborative (OCPIM data and metrics workgroup). This will be accomplished by collaborating with academic, clinical, programmatic and public health partners across the state.
• Enhance infant mortality and related MCH indicators provided through ODH's online "community profiles". Ohio has 88 counties which rely on ODH for much local health indicator data. The fellow will contribute to efforts to improve the accessibility and timeliness of local health data. This will be

accomplished by collaboration with the above workgroup as well as DFCHS program staff, SEO epidemiology staff, and CPHSI epidemiology staff at ODH.
• Contribute to timely completion and analysis of linked birth/death records for monitoring and studying infant mortality. This will be accomplished by collaboration with CPHSI epidemiology and vital statistics and health informatics staff as well as SEO epidemiologists and DFCHS program staff.
• Further efforts to understand disparate risk factors, including preconception health indicators, and birth outcomes in Ohio, particularly among black and Appalachian women in Ohio.

The majority of the fellow's projects will be completed with interdisciplinary teams. Defining a public health problem, planning and completing a project, and communicating results will require that the fellow work with staff across the department and often partners outside of the department. The fellow is encouraged to publish the results of their projects and will be supported in doing so.

Potential Projects

Statistical analyses will be supported by supervisors and The Ohio State University (OSU) statisticians. The fellow's interests and individual training needs will drive the specific analysis projects undertaken.

Potential projects include:
• Examining risk factors for births of VLBW babies in non-level III hospitals in Ohio and birth outcomes for VLBW babies born in non-level III hospitals (multilevel analysis required);
• Studying the impact of Ohio's 2007 smoking ban on prenatal smoking rates. Ohio has one of the highest smoking rates in the nation and it is particularly high among young and Appalachian mothers;
• Identifying risk factors for lack of breastfeeding initiation or duration using PRAMS and/or vital statistics data. Ohio has one of the country's lowest breastfeeding rates. However, WIC is actively promoting breastfeeding and it is a new priority for ODH. Data are needed to guide and support these efforts.

There are two major opportunities for evaluating surveillance systems:
• Evaluate vital statistics as a tool for monitoring breastfeeding initiation in Ohio. Ohio began collecting breastfeeding data on the birth certificate in 2006 when the 2003 NCHS birth certificate was adopted. However, the accuracy of this information has not been evaluated. Birth certificate information could be compared to PRAMS data or to medical records.
• Evaluate vital statistics for surveillance of fetal death as the state moves to use of the NCHS 2003 fetal death certificate in January of 2011.

Opportunities for outbreak investigations are available through the State Infectious Disease Epidemiologist in coordination with the Division of Prevention. Both have extensive experience supervising Epidemic Intelligence Service (EIS) officers in outbreak investigation. In addition, the CSTE supervisor has outbreak investigation experience.

Preparedness Role

The fellow will be invited to participate in trainings, planning meetings (such as the Bioterrorism Steering Committee Meeting), desktop exercises, and other elements of Ohio's emergency preparedness plan such as school emergency planning. The Division of Prevention has committed to providing additional support and opportunities for the fellow's involvement in emergency preparedness. The fellow will be required to complete NIMS ICS-100 and ICS-700 online courses

Assignment Location:	Columbus, Ohio
Primary Mentor:	Elizabeth Conrey, PhD, RD State Maternal and Child Health Epidemiologist Ohio Department of Health
Secondary Mentor:	Connie Geidenberger, PhD Maternal and Child Health Epidemiology Section Chief Ohio Department of Health