Maternal and Child Health/ Chronic Diseases

Assignment Description

The Iowa Department of Public Health's (IDPH) maternal and child health epidemiologist and the data integration coordinator are jointly located in the Division of Health Promotion and Chronic Disease Prevention/Bureau of Family Health (BFH). The BFH addresses a broad spectrum of maternal, child and family health issues of which the Fellow would play an integral part. The BFH has rich and accessible data sets for data analysis, evaluation, or surveillance projects. The relatively small size of the IDPH allows the Fellow many opportunities to participate in intra-bureau and inter-bureau activities including communicable disease investigation and environmental health. The fellow may also have the opportunity to serve as an adjunct faculty member at one of Iowa's colleges or universities.

Day-to-Day Activities

This fellowship entails a variety of research, surveillance, and evaluation opportunities. These activities will involve close collaboration with governmental entities at the federal, state, and local level, non-profits organizations, and academic institutions. While the BFH has numerous data sets, we have limited capacity to conduct data analyses, research, surveillance, and evaluation. The fellow can take a leadership role in carrying out these activities based on his/her interests, fellowship competency requirements, and agency needs. While at the IDPH, the fellow will be immersed in these activities and work side-by-side with program and epidemiologist staff. Day to day activities may include data collection at various sites within the state, data analysis at IDPH facilities in Des Moines, and collaboration with external partners through in-person or virtual communication and conferences.

Potential Projects

Examples of analytic and surveillance projects:

Analyze data from the Iowa Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based surveillance project of the Centers for Disease Control and Prevention (CDC) and IDPH. PRAMS collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy.

Link PRAMS data to the Iowa Prenatal Care Survey data to explore topics such as prenatal depressive symptoms compared to post-partum depressive symptoms, breastfeeding initiation in the hospital and continued breastfeeding, breastfeeding workplace policies and breastfeeding duration, and problems obtaining prenatal care and having experienced discrimination during pregnancy.

Investigate socio-ecological factors influencing health outcomes throughout the life course. Iowa's family health programs use a life course theory and social determinants of health framework to create our systems of care. The Fellow will have the opportunity to examine health outcomes using the newly released life course indicators set.

Explore adolescent health risk factors, including mental health. Topics may include, but are not limited to reproductive life planning, mental health and substance abuse, perceptions of health related issues, sense of agency in accessing preventive and health services and achieving health outcomes. This analysis could include a broad mix-methods approach, and would allow the fellow to explore a diversity of research methods.

Develop a Periods of Perinatal Risk (PPOR) analysis and approach to examine and monitor feto-infant mortality with an emphasis on addressing racial disparities for infant mortality in Iowa. The PPOR approach includes engagement of community partners, mapping feto-infant mortality, examining opportunity gaps, and developing further investigations and prevention efforts.

Participate in a project to link birth certificates to hospital discharge data. This linked data set will provide a population based longitudinal data source to examine both maternal and newborn health outcomes.

Conduct analyses using the linked birth certificate-hospital discharge data. Topics may include but are not limited to: pregnancy associated injuries, effect of late pre-term delivery on infant and maternal health, effect of gestational diabetes on infant and maternal health, and maternal and newborn morbidity associated with method of delivery.

Examine dental care access among children who obtain dental screening through Title V child health agencies and the Iowa I-Smile program. This analysis would include linking Medicaid claims data to service and program data. It could also include qualitative data collection with health care workers and/or parents.

Program Evaluation

Evaluate the contracting structure of Iowa's Maternal and Child Health programs. Twenty-four contracted agencies provide maternal and child health services to all 99 counties in Iowa. These services are community-based and rely on a strong network of community partners for their success. Using a mixed-methods approach based on program data as well as qualitative data collection, the fellow could investigate variation in care provided in contracted agency communities compared to other counties/communities in their service area. Other topics may include community level factors influencing access to care, the impact of ACOs and other care structures on clients, and urban/rural issues relating to health care access. Information would be used to improve quality of maternal and child health service provision in Iowa.

Work with child health and Medicaid programs to evaluate medical home status and health care access among child health and non-child health participants in the Medicaid population. Helping clients secure medical and dental homes is one of the main goals of Iowa's Child Health program. Any child enrolled in Medicaid in Iowa is eligible for this public health service, however some families elect not to participate, or are unreachable by program staff. Corollary topics could include ethnicity and language variation, urban and rural care resources, the impact of other community-based programs, and child age and

health status. Potential data sources include Medicaid claims data, child health data, and qualitative methods developed by the fellow.

Preparedness Role

Within the IDPH, the division of Acute Disease Prevention and Emergency Response provides support, technical assistance and consultation to local public health agencies, hospitals, emergency medical service programs, and local health care providers regarding infectious diseases, disease prevention and control, injury prevention and control and public health and healthcare emergency preparedness and response. The Fellow's primary mentor would facilitate the Fellow's participation in emergency preparedness activities as directed by the Fellow's interests and learning needs. The secondary mentor would also work to support the Fellow in any emergency preparedness work they undertake. The Fellow would also have the opportunity to participate in preparedness training and activities with the CDC, through the Division of Reproductive Health.

Assignment Location:	Iowa Department of Public Health Des Moines, IA
Primary Mentor:	Debra Kane, PhD, MSN, BSN MCH Epidemiologist
Secondary Mentor:	Elizabeth Richey, PhD, MPH, BS Data Integration Coordinator