

ID: 44837107

Maternal and Child Health, - Host Site Description
Iowa Department of Health and Human Services

Assignment Location: Des Moines, US-IA
Iowa Department of Health and Human Services
Bureau of Family Health

Primary Mentor: Debra Kane, PhD, MSN
MCH Epidemiologist
Iowa Department of Health and Human Services

Secondary Mentor: Ngoc Tran, MPA, BA in Communications with emphasis in Public Relations
Tracking Portal Manager
Iowa Department of Health and Human Services

Work Environment

Hybrid

Assignment Description

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 activities based on his/her interests, fellowship competency requirements, and agency needs. While at the Iowa HHS, the fellow will be immersed in these activities and work side-by-side with program and epidemiology staff. Day to day activities may include data collection at various sites within the state, data analysis at Iowa HHS facilities in Des Moines, and collaboration with external partners through in-person or virtual communication and conferences.

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

We are fortunate to have a wealth of data sources available from which to conduct analysis and surveillance. The Fellow would have access to these data sets as relevant to his/her key projects. For example:

- Vital records (birth, death, and fetal death records)
- Iowa Inpatient/Outpatient database (hospital discharge data)
- PRAMS, and the Iowa Prenatal Care Survey (PRAMS like survey distributed to women prior to hospital discharge)
- Behavioral Risk Factor Surveillance System (BRFSS) with decades of rich data on risky behaviors, chronic health conditions, and prevention
- Iowa Youth Survey (Iowa Youth Survey) is a school-based data resource on the health and experiences of 6th, 8th, and 11th grade students in Iowa
- Public Health Tracking Portal website providing dynamic data visualizations on over 50 public health topics
- County health assessments and rankings with four indicator assessments for each of 99 counties

The Fellow would have access to SAS for data management and analysis. Extensive support and training is available through one on one consultations with the primary mentor and other SAS users within the agency. We also have program level data that the fellow could access as indicated by their selected projects. The fellow would have access to SAS for statistical analyses. Our agency also has a license for REDCap that the fellow could use to develop surveys and analyze the results. In addition, Iowa has joined the effort to build and conduct a Syndromic Surveillance program using ESSENCE. There would be opportunities for the fellow to become familiar with this data source too.

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Tableau software is available for complex data analysis, and to create dynamic data visualizations. Extensive support and training is available through one on one consultations with a live trainer, live workshops, and Tableau sponsored online certified learning. Microsoft Office products such as Excel continue to be used extensively for data analysis, and support and training is available through one-on-one consultations with a live trainer, live workshops, and corporate sponsored trainings.

As a protege of the Secondary Mentor, the fellow will have access to decades of experience with data analysis, data preparation, data visualizations, graphic design, website development, technology development, and data and technology integration.

Projects

Surveillance Activity Title: Infectious Disease Outbreak Investigation

Surveillance Activity Description:

Observe and participate in the epidemiological surveillance and investigation of an infectious disease at various stages, working with epidemiologists and infection professionals from the State, counties, hospitals and laboratories. Understand how contact tracing, lab reports and electronic surveillance systems trace the source(s) of infection, vector(s) of transmission, and outbreak population.

This is a comprehensive hands-on learning experience with a variety of infectious diseases serving as a learning model, from food borne outbreaks originating from a catered wedding, to a Cryptosporidiosis outbreak that closes down a community swimming pool. The Fellow will observe and interact with experts in the field of public health, and access the latest electronic tools and techniques to stop ongoing outbreaks.

Surveillance Activity Objectives:

The project's main objective is to stop the spread of an infectious disease outbreak as it is currently infecting populations in the community. The learning objective is for the Fellow to gain field experience observing and working with subject matter experts, current technology and techniques in surveillance and epidemiology. A wide variety of experts from many disciplines of public health, other state agencies, local government, health care, university research, and laboratories will be involved.

The expected deliverable for the outbreak is to identify its source(s), vector(s) of infection, and infected population(s), and stop its spread. The expected deliverables for the Fellow is to gain field experience observing professionals in the latest techniques of outbreak investigation, use of technology and electronic systems to track and manage outbreak investigation. Additional deliverables include establishing contacts with professionals at various stages starting at the beginning when an infection is detected and a notification is sent for action, to the closure of the outbreak case. The Fellow will have an opportunity to observe and interact with a variety of professionals from the State, county, hospitals, community, university, and laboratories. Depending on their experience and interest, the Fellow may also have opportunities to conduct contact tracing and interacting with patient cases with personal interviews, and record their information into electronic databases and surveillance systems.

Surveillance Activity Impact:

The main public health impact to be achieved is to prevent the spread of an infectious disease outbreak as it occurs in the community, and the care of patients and communities affected by the outbreak. An additional public health impact is the training and preparation of the Fellow to participate in an ongoing outbreak investigation and prevention. The Fellow will gain valuable field experience observing professionals in action from many stages of the outbreak, from infection notification to outbreak case closure. Depending on their experience, the Fellow may additionally participate in the outbreak investigation and data collection process.

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Surveillance System Evaluation Title: Evaluate Iowa's syndromic surveillance system to ascertain selected maternal health outcomes.

Surveillance System Evaluation Description:

Iowa is new to syndromic surveillance and leadership is working with several Department Bureaus to build business cases for each Bureau's participation in syndromic surveillance. To date it is not yet clear whether there is a business case to monitor selected maternal health outcomes using Iowa's syndromic surveillance system. The Fellow would develop and test maternal health related syndromic surveillance queries. The Fellow would compare and contrast results to other known data sources to determine the extent to which syndromic surveillance complements existing data sources and/or detects new events, previously not detected by existing data sources. Existing data sources include vital records and the hospital discharge data set.

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Surveillance System Impact:

This project will guide Bureau leadership and epidemiologists to decide whether to invest staff resources into ongoing effort to use syndromic surveillance to monitor selected maternal health outcomes.

Major Project Title: Maternal Mortality Review and Data Analysis

Major Project Description:

Iowa has conducted maternal mortality reviews for over 50 years. However until recently, the reviews had been conducted just every three years. The Department received federal funding to build the maternal mortality review committee's capacity and to increase the frequency of reviews to an annual basis. Iowa has begun using the CDC Maternal Mortality Review Information Application (MMRIA) to enter and store data. The Fellow would extract data from MMRIA to conduct analysis of the factors associated with maternal mortality, whether the death could have been prevented, and recommendations to prevent future deaths. Iowa's maternal mortality rate disproportionately affects women of color. MMRIA collects both quantitative and qualitative data. The Fellow would use the MMRIA data to develop reports and data visualizations for internal and external stakeholders.

Major Project Objectives:

- Develop a data analysis plan for MMRIA data
- Complete the data analysis

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- Present the analysis methods and results to the maternal mortality review committee and other stakeholders
- Contribute to the annual MMRC report

Major Project Impact:

Surveillance of maternal mortality focused specifically on pregnancy-related deaths and stratification by disproportionately impacted populations will enhance statewide understanding of preventable maternal deaths, including improving recommendations for action to reduce future morbidity and mortality.

Additional Project #1 Title: Analysis of data from the Iowa Prenatal Care Survey

Project #1 Type: Major Project

Project #1 Description:

The Iowa's Barriers to Prenatal Care Project has been ongoing since 1992. The purpose of this project is to obtain brief, accurate information about women delivering babies in Iowa hospitals. Specifically, the project seeks to learn about women's experiences getting prenatal or delivery care during their current pregnancy. Other information is included which may be pertinent to health planners or those concerned with the systematic development of health care services. This project is a cooperative venture of all Iowa's maternity hospitals, the University of Northern Iowa Center for Social and Behavioral Research, and the Iowa Department of Public Health. The Robert Wood Johnson Foundation funded the first three years of this project. The current funding is provided by the Iowa Department of Health and Human Services. The questionnaire is distributed to over fifty maternity hospitals across the state of Iowa. Nursing staff or those responsible for obtaining birth certificate information in the obstetrics unit are responsible for approaching all birth mothers prior to dismissal to request their participation in the study.

The Fellow would link the Prenatal Care Survey to the birth certificate and conduct analysis about key topics such as pregnancy intention, prenatal education, in-hospital education about breastfeeding and infant care (Prenatal Care Survey variables) and examine these topics as they relate to prenatal care initiation, infant birth outcomes, and other key variables available on the birth certificate.

Project #1 Objectives and Expected Deliverables:

- Develop a data analysis plan and complete the data analysis
- Present the analysis methods and results to the key stakeholders including Bureau staff and Title V Maternal Health contractors
- Develop reports and data visualizations based on the data analysis results

Project #1 Impact:

This analysis will provide outcome information to Title V Maternal Health staff and contractors. The information will provide data to support the Title V 5-year needs assessment.

Additional Project #2 Title: Iowa Health Factbook Evaluation and Data Management

Project #2 Type: Surveillance System Evaluation

Project #2 Description:

The Iowa Health Fact Book is an online resource displaying a number of health and health-related indicators and measures for the state of Iowa. Data is presented at both the statewide and county level, and can be searched by health topic or by geographic region. While the Factbook has a clear purpose, its audience is obscure. It is not known who uses this resource, how often, or why. To answer these questions would increase the effectiveness of the online resource. The Factbook is a collaboration between State Public Health and the University of Iowa's School of Public Health, and the Fellow will manage the data flow between both parties.

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The activity is to identify the target audience, and evaluate the usage and effectiveness of the Iowa Health Factbook as an online resource; and manage the collection of data from the many state public health program managers, and submit the data to the university to be published online.

Project #2 Objectives and Expected Deliverables:

Two main project objectives are available.

The first project objective is to determine the effectiveness of the Iowa Health Factbook as an online resource. The Fellow will collect, analyze, and report on website hits, sources, duration of viewing, downloading and other activities. The second project objective is for the Fellow to manage the collection of data from state public health program managers, and then submit the data to the university. In doing so, the Fellow will establish working relationships with some of the most robust state public health programs and their managers (such as the infectious disease program, the sexually transmitted diseases program, the substance abuse program, the environmental health program, the emergency and planning program, vital records, etc), and the university for professional development and potential future job placement opportunities.

Project #2 Impact:

The public health impact to be achieved is to increase the usage and availability of the Health Factbook as an online resource. Additionally, the Fellow will establish professional networking contacts at the state and the university for potential career opportunities.

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

Within the Iowa Department of Health and Human Services, the Center for Acute Disease Epidemiology (CADE) 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 act as liaison between the fellow and the COVID-19 response team, as he was once a member of that team and retains extensive knowledge of the workings of daily epidemiological and strategic response to outbreaks. Additionally, the secondary mentor can provide extensive guidance on data collection, data analysis, data visualizations and other data and technology related needs, as he is one of the department’s lead data and visualization points of contact. The secondary mentor has extensive contacts with public health program staff, and can facilitate collaboration.

The Fellow would have the opportunity to participate in preparedness training and activities with the CDC, through the Division of Reproductive Health.

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

The Fellow would have the opportunity to observe and participate in infectious disease outbreak investigations for foodborne and enteric cases. Depending on the Fellow’s experience and preference, patient case interviews and interviews with infected business establishments are needed. The Fellow can also input their findings into the electronic infectious disease system for tracking, case management, and reporting. Part of the outbreak investigation involves the Fellow observing and participating in planning meetings to mitigate outbreaks as they occur in the community.

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Depending on the size and type of infectious disease outbreak, the Fellow can anticipate between five to 20 hours a week until the outbreak is closed. Foodborne outbreaks that affect a limited geographic area or people group are much shorter to investigate and close than enteric outbreaks that affect large geographic areas and large populations. For example, a Salmonella outbreak at a wedding may take five total hours of investigation and reporting. Whereas the closing of a popular community pool due to Cryptosporidiosis may take 20 hours or more of investigative work before it gets closed.

No special skills are required. The Fellow should be familiar with standard public health epidemiology and infectious disease investigation and reporting techniques. The Fellow must be able to use standard office equipment such as computers and computer software. The Fellow must be comfortable speaking with a variety of people groups with varied backgrounds in person and by phone: patients, hospital staff, lab staff, state and county public health staff.

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

None at this time.

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

The HHS department has a growing team of staff dedicated to health equity. Depending on their skills and interests, the Fellow can take part in leading health equity trainings and workshops to the many thousands of HHS staff, across its many bureaus and divisions to promote health equity-focused learning, and building equity champions. HHS recently launched the Health Equity Action and Learning(HEAL) Collaborative, to provide space for Iowa HHS staff to engage in meaningful and transformative conversations about health equity, racial equity, inclusion and belonging, as well as elevate equity-centered initiatives happening across our state. Meetings are open forums, and any HHS staff can participate in their topics of interest.

The public health division of HHS is growing in diversity with staff coming from many races and ethnicities, nationalities, ages, social economic backgrounds. HHS staff are natives of India, Vietnam, Bosnia, Mexico, Argentina, Nigeria, Sudan, Ethiopia, China, Korea, Myanmar, Nepal, and Malaysia. We include staff who relocated from the Pacific Northwest in Seattle, the West Coast in Los Angeles, the South from Alabama, the East Coast in New York, the Southeast from Georgia, and many midwestern locations.