Maternal and Child Health

Assignment Description

The Bureau of Community Health Promotion (BCHP) in the Wisconsin Division of Public Health (DPH) consists of cross-cutting and integrated programs throughout the lifespan: maternal and child health (MCH), including birth defects surveillance, PRAMS, reproductive health, genetics, universal newborn hearing screening, children and youth with special health care needs (CYSHCN); injury and violence prevention; physical activity and nutrition (including WIC); oral health; and chronic disease (tobacco prevention and control, diabetes, heart disease and stroke, cancer control, and the Well-Woman program).

We have adopted the CDC Healthy People at Every Stage of Life framework: "All people, and especially those at greater risk of health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life." Since 2003, we have had a very active Program Integration team to harmonize the health promotion/disease prevention messages throughout the lifespan; Wisconsin was 1 of 4 pilot sites for a CDC program-integration demonstration project in chronic disease and continues broad coordination efforts.

The CSTE fellow will have exposure to all areas of epidemiology, program evaluation, and disease surveillance in BCHP, which has more than 10 epidemiologists specializing in various areas of chronic disease and MCH. These individuals, along with students from the University of Wisconsin School of Medicine and Public Health (UWMSPH) and a number of fellows and trainees, make up a learning community that contributes to public health workforce development.

The Wisconsin Division of Public Health is located in Madison, Wisconsin, on the shores of Lake Monona and just 2 blocks from the State Capitol Building. The city consistently ranks as a top community in which to live and is bike-friendly with year-round opportunities for outdoor recreation in and around the city. Madison is also home to the University of Wisconsin (including the Schools of Medicine and Public Health, Law, Pharmacy, Nursing, Veterinary Medicine, and Letters and Sciences), 3 major hospitals, a performing arts center, many museums, diverse and plentiful dining options, a nationally renowned farmers' market, a convenient bus system, a strong school district, and eclectic housing options.

Day-to-Day Activities

The Fellow's anticipated day-to-day activities would include work on long-term analytic projects and acute outbreak investigations (suggested projects below). Other routine activities would include:

- Participate in the following meetings: DPH Epidemiology/Data Working Group meetings (monthly); Family Health Section meetings (monthly); BCHP-wide meetings (2x/yr); Program Integration meetings (6-10x/yr); Preparedness meetings and trainings (as appropriate)
- Attend weekly progress meeting with mentors (2-4 hr/wk as specified, minimum)

- Attend and make at least 1 presentation in learning sessions with other learners at DPH (medicine, nursing, nutrition, epidemiology, and MPH students and fellows)
- Attend weekly public health seminars at UWSMPH as applicable
- Choose one or more epidemiologic surveillance, program evaluation, or policy development projects and follow it/them from development to investigation to data collection to analysis to report or manuscript completion
- Become comfortable with indicator development, database linkage, GIS mapping, and evidence-based public health
- Participate in policy development and implementation

Potential Projects

There is flexibility built into the program such that the Fellow will have the option of pursuing specific projects of interest. Typical potential projects include:

ORAL HEALTH: The Wisconsin Oral Health Program has a well-established oral health surveillance system and collects Basic Screening Survey data across the lifespan, including Head Start children, third grade students, the general adult population, and older adults in nursing homes and senior meal sites. The program has identified the adolescent population as a data gap in the surveillance system and will be conducting a baseline Basic Screening Survey of adolescents in ninth grade public schools during the 2014-15 school year. Potential roles for the fellow include: survey planning, protocol development, and random sample selection; training and calibration of the screeners (dental hygienists and volunteer dentists) to ensure uniform understanding and implementation of the protocol for valid and reliable data; cleaning, weighting, and analyzing the data; and interpreting and disseminating results through a report on the program web site, including programmatic and policy recommendations.

EVALUATION OF SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC) DATA: Wisconsin WIC has a very robust statewide, online participant data system (called ROSIE) for some 120,000 active participants, as well as archived data for past participants. ROSIE generates statewide and local project level demographic and nutrition outcome data and reports; WIC data are also accessible through an ad hoc database for running queries and reports. Project opportunities relate to assessing the quality of data collection, accuracy of reporting, interpretation, and representation of the data to use in program planning. In addition, Wisconsin WIC is participating in a pilot with Michigan WIC, who will assume and manage data collection of key indicators for states following CDC's discontinuation of the Pediatric and Prenatal Nutrition Surveillance Systems. The fellow could assist in assuring that the new system accurately represents Wisconsin WIC data and produces meaningful reports.

EFFORTS TO IMPROVE BIRTH OUTCOMES AND REDUCE DISPARITIES: Wisconsin has recently launched participation in a HRSA Region V CoIIN (Collaborative Improvement and Innovation Network) effort to reduce infant mortality. The strategies of focus are (1) Early Elective Deliveries, (2) Pre/Interconception Health, (3) SIDS/SUID/Safe Sleep, and (4) Social Determinants of Health. Wisconsin will be forming action teams around each of these topic areas, and the fellow would have the opportunity to participate in these diverse state teams, support Wisconsin's participation in the national strategy teams, and help assure that the state and regional efforts are informed by appropriate data and rigorously evaluated.

TRAUMATIC EXPERIENCES AND CHILD WELL-BEING: Adverse childhood experiences (ACEs) include things such as living with a person who was depressed, mentally ill or suicidal, being sexually abused, living with someone who abused drugs or alcohol, witnessing domestic violence, and being physically hurt by an adult. Wisconsin has current data on ACEs from a Behavioral Risk Factor Survey module and the National Survey of Children's Health (2011-2012). The fellow would have the opportunity to collaborate with Wisconsin's Children's Trust Fund and researchers at the University of Wisconsin-Madison to further explore: (1) the effect of ACEs on child well-being (including children with special health care needs), (2) the risk factors for exposure to ACEs, and (3) the ways in which programs and policies support the prevention of ACEs and the reduction of their effects. Project activities could include data analysis, collaborating with researchers and policymakers, report-writing, and journal article preparation and submission.

MCH NEEDS ASSESSMENT: The MCH Program will be conducting its 5-yr Statewide Needs Assessment during the fellowship period. The fellow will have an opportunity to participate in the comprehensive assessment process, including the tracking of health indicators, assessment of MCH infrastructure capacity, selection of state priorities and performance objectives, and development of an action plan to address priority areas. The collaborative nature of the process will provide an opportunity to work with key partners and stakeholders, as well as with programmatic and epidemiology staff to plan future directions of Wisconsin's Title V program. Specific activities could include: the development of data briefs for current MCH priorities; assessment of AMCHP's recently released Life Course Indicators; and evaluation of MCH program activities for effectiveness, efficiency, and quality.

WISCONSIN PREGNANCY RISK ASSESSMENT MONITORING SYSTEM (PRAMS): Wisconsin began collecting data through PRAMS in 2007, providing a valuable opportunity for monitoring and assessing the health of mothers and babies and examining existing health disparities. In addition, the survey contains information on chronic and other health conditions during pregnancy and can be used as a tool for program integration projects between MCH and chronic disease. In 2011, DHS began an exciting partnership with the University of Wisconsin School of Medicine and Public Health to conduct a PRAMS oversample of African American mothers in the state. These larger datasets are just starting to become available. The fellow could play a key role in developing analysis and dissemination plans for sharing the data with partners and residents in the oversampled communities.

COLLABORATIVE DATA AND MONITORING PROJECTS: BCHP has a perfect structure (N~100 FTE) to examine the epidemiology of broad, common risk factors for MCH, chronic disease, and other outcomes. Wisconsin also has a strong history of program integration and coordination and has been part of national pilot efforts on these topics. Additional key partners for recent and emerging collaborative efforts include the Division of Health Care Access and Accountability (Medicaid), the Division of Mental Health and Substance Abuse Services, the Bureau of Communicable Disease and Emergency Response, and the Office of Health Informatics. These projects would consist of collaborative program planning, surveillance, and evaluation. Potential topic areas include:

- Tracking pre-/inter-conception health indicators and their relationship to birth outcomes in the state
- Estimating the prevalence and effects of neonatal abstinence syndrome
- Understanding possible barriers to father involvement and its impact on birth outcomes
- Efforts to enhance uptake of HPV vaccine among male and female teens and young adults in Wisconsin
- Potential BCHP uses for a customer hub (in development) that will link data systems across multiple public health programs
- Identifying and conducting collaborative projects using key data systems, such as linked infant birth/death files; linked birth certificate and hospital discharge data; Maternal Registry (linked births to the same mother across time); Wisconsin Violent Death Reporting System (WVDRS) and the Child Death Review Case Reporting System to examine violent deaths to children; or WVDRS and Maternal Mortality Review System to examine violent maternal deaths.

SURVEILLANCE EVALUATION: There are multiple existing data systems that the fellow could choose from for conducting an evaluation of a surveillance system. These include: newborn blood and hearing screening; Wisconsin's MCH data system, SPHERE (Secure Public Health Reporting Environment); PRAMS; indicators from Wisconsin's recent adoption of the 2003 birth certificate revision; deduplication procedures for the Wisconsin Birth Defects Registry; and more.

Preparedness Role

The fellow will participate in all ICS training and certification activities and will be assigned a specific role in the event of an incident, such as an environmental spill, pandemic flu outbreak, fire, weather, or other emergency, especially as it affects the MCH population. If interested, the fellow could also identify a preparedness project focusing on special populations, such as children, pregnant women, CYSHCN, individuals with chronic diseases and disabilities, low-income populations, and those with limited English proficiency. Previous fellows have had the opportunity to participate in trainings, contribute to the H1N1 response, and attend table top exercises.

Assignment Location:	Wisconsin Division of Public Health Madison, Wisconsin
Primary Mentor:	Angela Rohan, PhD, MA Senior MCH Epidemiologist / CDC Assignee
Secondary Mentor:	Melissa Olson, MS Oral Health Epidemiologist/Evaluator