

ID: 60361542

Maternal and Child Health, Birth Defects and NAS - Host Site Description

Washington Department of Health

Assignment Location: Tumwater, US-WA
Washington Department of Health
Prevention and Community Health Division / Office of Family and Community Health Improvement

Primary Mentor: Martha Skiles, PhD, MPH
Senior Epidemiologist & Section Manager
Washington State Department of Health

Secondary Mentor: Teal Bell, MPH
Epidemiologist
Washington State Department of Health

Work Environment

Hybrid

Assignment Description

The Fellow will be assigned to the Data Collection and Reporting (DC&R) Section in the Office of Family and Community Health Improvement (OFCHI). OFCHI is the state's Title V MCH recipient, and DC&R provides MCH epidemiologic analyses and expertise to OFCHI and the Agency, local health jurisdictions, state agencies, tribal organizations, and other partners and communities. The Fellow will receive formal mentorship from the DC&R Senior Epidemiologist/Manager and lead PRAMS Epidemiologist. Based on the range of projects proposed, the Fellow will also have the opportunity for mentorship and learning with other epidemiologists at DOH.

This placement offers an opportunity for the Fellow to become immersed in MCH epidemiology on a day-to-day basis. The proposed projects cover a broad cross-section of MCH topics including perinatal health, maternal mortality, birth defects, neonatal abstinence syndrome, equity and access to care. Some examples include: taking a lead role in designing a novel study of respectful maternal care; exploring methods to incorporate social determinants of health into maternal mortality research; or evaluating home visiting outcome measures that elevate equity in our work. These activities will provide the Fellow the necessary experience to develop a high level of proficiency in core applied epidemiology competencies. The Fellow will be actively engaged in MCH surveillance, data analysis, project planning, program evaluation, developing research projects, policy development, and providing analytic and epidemiologic support to external stakeholders and programs within DOH.

This placement also provides the opportunity to engage with and learn from epidemiologists across the agency. Activities include both individual self-directed work and collaboration on workgroups. Day-to-day work will vary based on the Fellow's interests and current office and agency needs. We anticipate that, given the opportunities available, our Fellow will meet all of the Core Competencies over the course of the Fellowship.

There will be frequent opportunities to meet and consult with colleagues to review collaborative projects, present materials, and gather feedback. The Fellow will also meet regularly with the mentors to review approaches, discuss questions or challenges, and to learn about DOH. The Fellow will be included as a full team member and invited to Section, Office, Division and Agency-level meetings, which provide updates, information, and opportunities for staff to ask questions and share their experiences. The Fellow will participate fully in Section and Office activities, such as learning seminars, trainings, advisory committees, and other workgroups. The Fellow will also be encouraged to attend state and national conferences making presentations to both professional and lay audiences. The mentors will check in regularly to ensure that the Fellow is having a positive experience and is learning and growing.

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

Depending on need and preference, the Fellow will receive training and access to multiple analytic datasets and surveillance system data including: Pregnancy Risk Assessment Monitoring System (PRAMS), Birth Defects Surveillance (BDS), Universal Developmental Screening System, Home Visiting service data, Vital Records (births, deaths, fetal deaths, linked birth-infant deaths), Hospital Discharge data, Maternal Mortality Review, Child Death Review, Healthy Youth Survey, Behavior Risk Factor Surveillance System, Children with Special Health Care Needs data, National Survey of Children's Health, Rapid Health Information Network (RHINO; emergency and outpatient data), All Payer Claims database, and chronic disease data.

Available software will be tailored to the needs of the Fellow and the projects, and may include Stata, SAS, R, PowerBI and/or Tableau, Atlas.ti, StatTransfer, EndNote, ArcGIS, and/or JoinPoint. Other software may be available as needed.

Projects

Surveillance Activity Title: Washington Birth Defects Surveillance

Surveillance Activity Description:

The Washington State Birth Defects Surveillance (BDS) program is in the process of making major program and data system changes. Washington's BDS has been a passive system, relying primarily on reports from birthing facilities. We have started to link and incorporate data from the Washington Center for Health Statistics (birth, death, fetal death, and hospital discharge) into BDS. The linked data will help with case verification and case ascertainment, along with opportunity for new analyses and a much-improved understanding of populations experiencing birth defects in the state. Over the next year we will also begin the process of proposing changes to the birth defects sections of the Notifiable Conditions Washington Administrative Code (WAC) - allowing us to increase the number of reportable birth defects and meet CDC and the National Birth Defects Prevention Network recommendations. In addition, we anticipate proposing a care coordination component to the WAC.

Working closely with the BDS epidemiologist, Surveillance Unit supervisor, and section manager, the fellow will contribute to developing the new BDS data system; use existing BDS data linked to vital statistics data to examine maternal and demographic risk factors and child outcomes; contribute to presentations for program staff, stakeholders, and policy makers; engage with the process of changing Washington Administrative Code; help set up data sharing agreements; and learn about state and national funding streams used for BDS program and data system development.

Surveillance Activity Objectives:

- Support facilities transition to new BDS system with development of training materials
- Conduct analysis of the linked BDS data file to describe the distribution of birth defects and other conditions of childhood in Washington while exploring the associations between maternal and demographic risk factors and child outcomes
- Contribute data to geographical analysis and visualization of BDS linked data
- Finalize one presentation for sharing with internal and external partners and submit an abstract to at least one appropriate conference

Surveillance Activity Impact:

Surveillance of birth defects and conditions of childhood has been minimal in Washington state for many years. The completion of the new BDS system and program will allow for the timely collection and dissemination of birth defects data to enable the possible identification of causal factors and potentially lead to the primary prevention of some birth

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defects. Establishing a care-coordination component to the BDS program will assist in secondary and tertiary prevention efforts which will enhance the quality of life for individuals affected by birth defects and other conditions of childhood in Washington.

Surveillance System Evaluation Title: Evaluating Washington’s Maternal Mortality Surveillance System

Surveillance System Evaluation Description:

Washington’s Maternal Mortality Review Panel (MMRP) reviews anonymized pregnancy-related deaths and makes recommendations to prevent similar losses in the future. The review process starts with DOH establishing an annual list of potential pregnancy-associated deaths identified using exact and probabilistic matching, across vital records (births, fetal deaths, deaths). Next, an extensive medical record review and abstraction is completed and detailed case narratives are presented to the MMRP. The MMRP classifies preventability of each pregnancy-related death, identifies contributing factors leading to that death, and develops recommendations to prevent similar deaths in the future. For each case, minimum data is reported to CDC in the Maternal Mortality Review Information Application (MMRIA). Currently, DOH collects and reports limited data on social determinants of health and relies heavily on medical provider reporting. Evaluating the potential benefits and challenges of additional data collection will help DOH prioritize needs for MMR surveillance.

Using the CDC’s framework for the Evaluation of a Surveillance System, the Fellow will assess the surveillance system attributes in terms of simplicity, flexibility, data quality, acceptability, sensitivity, predictive value positive, representativeness, timeliness, and stability of the system. Of particular interest to DOH and the MMRP will be the assessment of the following attributes:

- Simplicity - is the current process of reporting to CDC (MMRIA) and presenting to the Panel easy and efficient?
- Data Quality - is the routine data collected and reported to CDC sufficient for understanding the medical, social, and cultural root causes contributing to maternal deaths? Are there MMRIA forms not used by Washington that would benefit reporting?
- Acceptability - is there additional information from family that would inform classification of preventability? Would in-depth interviews to gather that information be acceptable to grieving families?
- Sensitivity - are newly introduced machine learning matching techniques identifying all pregnancy-related deaths?

Surveillance System Objectives:

- Identify inefficiencies and/or gaps in collection and reporting, with assessment of pros/cons of additional data submission in MMRIA;
- Produce a Situation-Background-Assessment-Recommendations (SBAR) report for DOH and MMRP to evaluate feasibility, capacity and agency support to include informant interviews with family members for WA’s MMR.
- Produce surveillance system evaluation report and present findings to DOH MMR team.

Surveillance System Impact:

Every three years, the MMRP draws on case data to produce a report and set of recommendations for the Legislature. With increasing counts of pregnancy-related deaths, it is imperative that the Panel have the data they need to produce recommendations based on a clinical and social understanding of the cases. Findings from this assessment will inform DOH’s process for collection and reporting, to ensure comprehensive and efficient data use to improve maternal outcomes.

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Major Project Title: Assessing Maternal Care Experiences during the prenatal and postpartum periods, 2023

Major Project Description:

In Washington State, 80% of pregnancy-related deaths were preventable between 2000-2020. The WA Maternal Mortality Review Panel (MMRP) found that leading factors contributing to those preventable deaths included care quality and discrimination (<https://doh.wa.gov/sites/default/files/2023-03/141-081-MaternalDeathsFactSheet-2023.pdf>). Recommendations included undoing racism and bias and strengthening quality clinical care. Respectful maternity care is a component of quality care that includes preventing harm and mistreatment, engaging in effective communication, and providing care equitably. In 2023, the Pregnancy Risk Assessment Monitoring System (PRAMS) began collecting data on maternal experiences receiving healthcare services. PRAMS is the first population-based survey to collect this information. The Fellow would design a study of 2023 PRAMS data to examine the following components of respectful care received: 1) effective communication (e.g., comfortable asking questions and declining care, ability to choose care options), 2) discrimination (e.g., because of race, ethnicity or skin color; age; weight; income; sexual orientation; religion; or substance use), and 3) satisfaction of maternity (pregnancy, delivery and postpartum) care received. Results may be able to identify gaps in respectful maternity care that would support tailored quality improvement initiatives.

Major Project Objectives:

- Conduct a literature review on maternal care experiences in the United States to provide background information, identify gaps in the literature, and guide the direction of this research in Washington
- Meet with the DOH Perinatal Health program to develop specific study questions and desired deliverables
- Analyze 2023 PRAMS data on maternal care experiences received
- Present findings to DOH Perinatal Health program and potentially at a national conference (CSTE, CityMatCH, PRAMS)
- Prepare and submit manuscript to peer-review journal for publication

Major Project Impact:

Negative maternity care experiences might influence use of health care services. Improving respectful maternity care can be part of multilevel strategies to address recommendations from the WA MMRP listed above. Findings from this project could identify areas of improvement and potentially inform quality improvement initiatives and strategies to improve respectful maternity care.

**Additional Project #1 Title: Qualitative analyses for the Maternal & Child Health Block Grant Needs Assessment
Project #1 Type: Major Project**

Project #1 Description:

Every five years, DOH completes an assessment of the health of children, parents and caregivers, and families in the state. The information we gather helps us identify priorities which guide the work we do as part of the Title V Maternal and Child Health Block Grant. This is the main opportunity for families to directly inform our Title V work. DOH is increasing its qualitative efforts to include Key Informant Interviews, facilitated discussions with partner groups, an open-ended Discovery Survey for Washington residents, several population specific surveys, and ongoing qualitative reporting from related grant and program evaluation efforts. The fellow will assist with analysis of qualitative inputs and synthesis of public health priorities to be shared with communities and elevated in the next grant cycle.

Project #1 Objectives and Expected Deliverables:

- Assist team with qualitative coding to identify emergent themes, using Atlas.ti.
- Develop Briefs on top themes from each identified source (i.e. key informant interviews, facilitated discussions, open-ended survey response, etc.).

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- Identify gaps in represented populations and methods, including recommendations for follow-up as appropriate.
- Prepare an overall summary report on emergent themes from qualitative sources and a presentation for DOH Title V staff covering key themes, gaps, and recommendations.

Project #1 Impact:

This is part of a larger needs assessment process which directly informs the use of Title V funds in Washington State from 2025-2030. Deliverables above will ensure that community voices are heard and elevated throughout this process, to improve the quality of future DOH needs assessment activities. This will also lead to a stronger connection between DOH and the communities we serve, with more visible concrete examples of Title V funding support needs identified by and with communities themselves.

Additional Project #2 Title: Understanding the distribution of Neonatal Abstinence Syndrome (NAS) across Washington

Project #2 Type: Major Project

Project #2 Description:

DOH currently calculates the rates of NAS at the state and county level using hospital discharge data. New linked datasets (birth records, hospital discharge and PRAMS) supplement this data with key demographic, geographic and experiential information about NAS cases. Analyses with these linked data will help identify communities with the highest burden and the most unmet needs.

Project #2 Objectives and Expected Deliverables:

- Assess quality and completeness of data for NAS cases in linked datasets
- Demonstrate use of linked data to describe NAS prevalence at the county and/or community level, and by select demographic characteristics
- Produce data for DOH MCH Dashboard (currently under construction)

Project #2 Impact:

New methods for data linkages, estimations, and analyses continue to be explored by DOH and state partners. Many of these new methods and combined data sources enhance our view of the populations we serve and the conditions they face in seeking and receiving services, as well as challenges documented in their lived experiences. Harnessing these data will help provide a more complete picture of the work needed and the outcomes experienced.

Additional Project #3 Title: Environmental scan of doula availability, acceptability and affordability statewide

Project #3 Type: Major Project

Project #3 Description:

Doulas provide community-based support during pregnancy, birth and early parenting. In 2022, the Washington lawmakers passed legislation creating a new health profession for birth doulas, including a state certification process. DOH will leverage existing partnerships with doula networks, local health and home visiting partners to explore service availability and capacity, affordability, and acceptability of doula services throughout Washington.

Project #3 Objectives and Expected Deliverables:

- Inventory and map doula service availability statewide
- Identify barriers to acceptability of doula services by community
- Document cost of services statewide and resources available to defray costs for families
- Present findings to Washington's Perinatal Quality Improvement Collaborative and publish data brief

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Project #3 Impact:

Findings will be used to build on learnings from an assessment of maternal care services and maternity care deserts to better understand where supports are available and where DOH and partners can leverage resources to begin addressing identified gaps in care.

Additional Project #4 Title: Analysis of Home Visiting services used by new birthing persons in Washington

Project #4 Type: Major Project

Project #4 Description:

Voluntary home visiting services during pregnancy and post-partum, are offered across Washington by local health jurisdictions and community-based organizations. Beginning with 2023 births, PRAMS is now collecting data on receipt of home visiting services during pregnancy. Analysis of these data will provide estimates of home visiting across Washington, and a demographic profile of the populations who are receiving these services. The Fellow will be encouraged to identify one or more research questions that examine associations between home visiting services and a maternal or infant health outcome of interest at the population level.

Project #4 Objectives and Expected Deliverables:

- Describe home visiting prevalence by select demographics
- Design study using PRAMS data to answer an MCH question of interest among those who receive home visiting services
- Present findings to home visiting team and at local or national conference

Project #4 Impact:

Funding for these programs continues to increase from HRSA, the Legislature and non-profit sources. Understanding who benefits from these programs and what measurable benefits are seen at a population-level will inform policy and program efforts to reach those who will benefit most from services.

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

DOH staffs an Epidemiology Response Team (ERT) with volunteers from across the agency. This rapid response team deploys to natural and human-caused incidents ranging from communicable disease outbreaks to natural disasters. The ERT may assess urgent health needs, match those needs with available resources, provide decision-makers with actionable information, and minimize adverse health impacts and outcomes. Members are trained in disaster epidemiology and public health emergency preparedness and participate in monthly meetings to strengthen and enhance their working knowledge to ensure they are ready to respond when called upon. The Fellow would be encouraged to apply and participate in any ERT deployments that arise.

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

Typically, cluster and outbreak investigations are not a routine part of the role for MCH epidemiologists in OFCHI. However, through connections with ERT and colleagues in the DOH Office of Communicable Disease Epidemiology, Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET), and Foodborne Illness teams, we would support response assignments and will facilitate introductions and networking across DOH that may identify these opportunities.

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

The WA DOH COVID-19 response has shifted from an all-hands-on-deck organizational push during the pandemic, to a period of in-depth analyses of lessons learned that supports ongoing public health efforts and preparations for future epidemics. Opportunities for a Fellow may include the following and time commitment sized to Fellow's availability:

- a) Analyses of COVID Vaccine Supplement data collected from PRAMS respondents in 2021-2022. The Supplement covered topics including uptake of COVID vaccines, availability, concerns and information gaps about COVID vaccines. This work will support development of Fall 2024 campaign materials for vaccinations (e.g., COVID, Influenza, Pneumococcal, and RSV) and a presentation and/or manuscript.
- b) Investigation of potential COVID-related birth defect(s) and/or maternal health complications. The cross-divisional connections for Washington's Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET) and Birth Defects Surveillance activities provide opportunities to become involved in COVID-19 analytic activities related to birth outcomes. Assignments can be tailored depending on interest and need.

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

Equity, Innovation and Engagement (EIE) are cornerstone values for DOH, embedded in all the work we do. The Agency has an intentional approach to equity work, both internally (e.g., workforce development, nurturing belonging) and externally (e.g., partnerships, policy and access). There are also staff dedicated to data democratization efforts, data equity and access, Tribal data sharing and use, and community dissemination. The Fellow will be encouraged to participate in all Agency training and development opportunities to center our work in equity. There are also a number of projects ongoing or starting up that would allow the Fellow an opportunity to put into practice equity work, including:

- a) Health Equity Zones (HEZ) is a place-based initiative that supports community-led solutions to address the social determinants of health. This initiative uses a community-based participatory approach to shift decision-making on health priorities to those who live and work in local communities. A Fellow could engage in this work by participating in meetings with staff or community partners to learn more about the initiative's approach to health equity; by providing technical support to community partners such as preparing trainings or workshops and responding to data analysis requests; and by supporting ongoing evaluation efforts led in partnership with community members.
- b) Washington state is home to 29 federally recognized Indian tribes and 2 Urban Indian Health Organizations. The American Indian Health Commission (AIHC) is a tribal-lead organization that provides a forum for addressing tribal-state health issues. There are a few projects in development with AIHC:
 - AIHC is leading a new initiative to design and field an American Indian/Alaska Native (AIAN) PRAMS survey, with support from DOH. In 2024, the focus will be on planning and development of the AIAN PRAMS (ie., protocol, survey tool, sampling, etc). We anticipate opportunities for the Fellow to participate in meetings to learn about our tribal partners' goals, strategic approach, and cultural context. Technical support during the planning and implementation in partnership with the DOH Tribal Epi may also be requested from AIHC.
 - Concurrently WA PRAMS is evaluating our statewide PRAMS sampling framework to assess the representativeness of our sample which was originally designed to produce estimates by race/ethnicity through oversampling select populations in Washington. Analytic support will be needed to model sampling strategies to meet the WA PRAMS and AIAN PRAMS survey goals.

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c) The Home Visiting Team will lead a review of the performance measures for home visiting programs in 2024-25. The goal is to collect data to measure performance for the outcomes most important to indicate healthy, safe, successful start for young families. The challenge is the substantial data burden shouldered by home visiting programs, the different foci of home visiting models, and the different needs of communities and families. Applying an equity lens to our review of measurements will focus our assessment on maintaining important information to measure progress important to families while ideally streamline reporting requirements. The Fellow may participate in discussions, conduct literature reviews to identify new measurement strategies, gather supplemental data through interviews or focus groups to inform decision-making around performance measures, and present findings to partners.