

ID: 54221632

Maternal and Child Health - Host Site Description
Oregon Health Authority

Assignment Location: Portland, US-OR
Oregon Health Authority
Public Health Division

Primary Mentor: Suzanne Zane, DVM, MPH
Senior Maternal and Child Health Epidemiologist
Oregon Health Authority and Centers for Disease Control and Prevention

Secondary Mentor: John Putz, PHD, MA
MCH Assessment, Evaluation & Informatics Manager
Oregon Health Authority

Work Environment

100% Virtual

Assignment Description

The Fellow will be within the MCH Section's Assessment, Evaluation, and Informatics unit, together with their mentors. Epidemiologists and research analysts in this unit work across all of MCH, providing the Fellow exposure to and experience in multiple MCH topic areas. The Fellow will work on 3-5 projects at any particular time. Prioritization will be developed by the Fellow and supervisors in accordance with the needs of the CTE AEF requirements/competencies. Regular meetings with mentors for each project will be on the calendar, plus the fellow will have access to Suzanne Zane or Maria Ness (typically both) in the virtual or in-person work environment on any given day. Meetings with John Putz usually need to be scheduled a week in advance; he is very responsive to immediate needs via email.

A typical day might include a key project team meeting, working through the steps of an analytic plan with their mentor, analyzing an existing dataset, drafting a data use agreement for access to data and permission to perform a data linkage, sitting down with a health communicator/educator to outline a public-facing fact sheet, work setting up a Tableau dashboard, collating data from multiple sources for strategic planning, or conducting interviews for a qualitative program evaluation.

The Oregon Title V program's current priority needs include well woman care, breastfeeding, child physical activity, adolescent well visits, CSHCN medical home, CSHCN transition to adulthood, oral health, tobacco, toxic stress and trauma, food insecurity, and culturally and linguistically responsive services. The Title V needs assessment, currently in progress, may identify different areas of priority for the new 5-year cycle, and the Fellow may be involved in using data to assist county health departments and Oregon Tribes in planning their activities based upon the updated priorities. Oregon is one of only 5 states with a PRAMS follow-up survey; the Early Childhood Health in Oregon survey is administered when the PRAMS index child is 3 years old. A portion of the Fellow's role will be analyses of ECHO data and planning for the next iteration of this survey with extensive community input and engagement. The fellow's work will incorporate key public health practice at every level: learning about the complementary roles of state and local programs, surveillance systems in public health, program and surveillance system evaluation, survey design and methods, outbreak investigation if desired, emergency preparedness, and study design and data analysis for presentations and publications as well as use of findings for public health action.

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

The MCH Epidemiology Fellow will have access to Vital Statistics (birth, death, fetal death certificates), the National Survey of Children's Health Oregon oversample by race and ethnicity, Oregon PRAMS and Early Childhood Health in Oregon survey, the Birth Anomalies Surveillance System, Oregon BRFSS, Oregon's Student Health Survey (state version of the YRBS), Hospital Discharge Data, and potentially nurse home visiting program, WIC client, Family Planning/Title X, Immunization, and Medicaid data. The fellow may have the opportunity to access the Oregon All Payers All Claims Database, which contains administrative health care data for Oregon's insured populations. It includes medical and pharmacy claims, enrollment data, premium information, and provider information for Oregonians who are insured through commercial insurance, Medicaid, and Medicare.

Our fellow will have access to SPSS and STATA for quantitative data analysis, NVivo for qualitative work, and ArcGIS for geographical analysis. We are using Tableau for interactive data visualization. They may have the opportunity to work using additional database platforms such as Filemaker, which we utilize for multiple programs within MCH. Staff with skills related to each of these are available for help and skill-building.

Projects

Surveillance Activity Title: Fentanyl exposure in utero and neonatal abstinence syndrome in Oregon

Surveillance Activity Description:

Neonatal abstinence syndrome (NAS) following opioid use disorder in pregnant people has been changing in the past three years due to increasing use of fentanyl alone or in combination with other substances. Hospital neonatal pediatricians in Oregon have been reporting a clinical difference in newborns exposed to fentanyl as opposed to other opioids, and that both the "eat, sleep, console" approach and pharmacologic treatment are less effective in these infants. The Fellow will initiate an ongoing surveillance system based upon hospital discharge data to collect information on the increases in fentanyl exposure in both NAS and in opioid-affected pregnancies in the state. Medical record review will be utilized to examine the quality of hospital discharge data for detecting these cases. The Fellow will work with our partners (the Northwest Neonatal Improvement Priority Alliance and the Oregon Perinatal Collaborative) to implement improvements in hospital coding for fentanyl involvement in neonatal and delivery records.

Surveillance Activity Objectives:

The Fellow will gain clinical knowledge of treatment for opioid use in pregnancy and of infants with NAS, understanding of causes of and public health response to the fentanyl crisis, and learn about the limitations of administrative data for public health use.

The Fellow will work together with statewide clinical quality improvement partners to improve reporting of fentanyl-positive laboratory results and clinical findings.

Create data system to collect data on fentanyl-affected newborns and pregnancies that can be updated every six months on an ongoing basis and provide automated reports.

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Surveillance Activity Impact:

Oregon MCH and Injury Prevention will be able to track changes in NAS and opioid-affected pregnancies during this rapid increase in both conditions, with specific tracking of the proportion of each of these specific to fentanyl use over time. Clinical shifts in treatment of newborns are related to the increase in that latter proportion, and we need a better understanding of the demographic and geographic factors that play a role. Resources for identification and treatment of pregnant people with opioid use disorder can then be targeted more effectively. The collaboration with clinical partners is key to improving the data available to public health, the QI efforts of these partners will ensure that providers around the state have the most up-to-date information on how to best address the needs of these newborns.

Surveillance System Evaluation Title: Evaluation of the Oregon Student Health Survey (SHS)

Surveillance System Evaluation Description:

The SHS is a comprehensive, school-based, anonymous and voluntary health survey of 6th, 8th and 11th graders conducted in even-numbered years. It is a key part of statewide efforts to help local schools and communities ensure that all Oregon youth are healthy and successful learners. The SHS is designed to address student health and safety, student mental and behavioral health, and school climate and culture. Data from the SHS are available at the school district level and also via an online data portal.

The CSTE Fellow will evaluate the SHS based upon the CDC Updated Guidelines for Evaluating Public Health Surveillance Systems (MMWR, 2001), utilizing modalities best suited for this particular surveillance system. For example, stakeholders to engage in the SHS evaluation will include school administrators and high school students as well as Oregon Department of Education staff and youth services partners. The evaluation report and communications materials will include the roles of partners in improving the survey and ways in which recommendations of the evaluation can best be implemented.

Surveillance System Objectives:

- Experience in evaluation of an existing surveillance system using standard guidelines.
- Providing useful findings to public health staff for improvement of this survey and its processes.
- Completed surveillance report.
- Presentation to project staff and stakeholders.
- Presentation of the evaluation at CSTE conference.

Surveillance System Impact:

The SHS has been subject to logistical and political pressures, and also purposefully differs in multiple ways from the standard Youth Risk Behavior Survey conducted in other states. The data from this survey are broadly utilized to understand high schooler's physical and emotional health behaviors and beliefs; such data are used in educational, harm reduction, and prevention programs and to apply for targeted grants for teen populations. The Fellow's evaluation will utilize multiple points of view as well as quantitative indicators to determine the efficacy of the current SHS in determining trends in health and behaviors of high school students in Oregon.

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Major Project Title: Using data from a statewide race and ethnicity oversample of the National Survey of Children's Health to examine issues of health inequity.

Major Project Description:

The Oregon Maternal and Child Health Section led a joint effort between multiple state agencies, the HRSA Maternal and Infant Health Bureau, and U.S. Census to design and purchase an oversample by race and ethnicity of the 2020, 2021, and 2022 National Survey of Children's Health (NSCH). The oversample enables analytic disaggregation of data by race and ethnicity. The Fellow would provide needed service to Oregon and develop skills in working with weighted survey data through multiple descriptive analyses of these data focused on health equity. Upon gaining familiarity with survey topics and in working with the weighted cross-sectional data, the Fellow will select a topic of mutual interest with the MCH Title V team for a multivariable analysis focused on health inequities. Findings from this work would be used for guiding program design, policy advocacy, and scientific dissemination.

Major Project Objectives:

- Gain familiarity with contents of NSCH.
- Skill-building in hypothesis generation, analytic planning, descriptive data analysis, multivariable modeling and analysis.
- Fact sheets/data translation of descriptive findings with focus on inequities and related factors.
- Abstracts for state/ national conferences.
- Manuscript for peer-reviewed publication.

Major Project Impact:

Findings will be used for tailoring programs and advocating for funding community organizations, with a goal of strengthening families and ameliorating factors associated with health inequities.

**Additional Project #1 Title: Babies First! Nurse home visiting program quantitative evaluation
Project #1 Type: Major Project**

Project #1 Description:

Babies First! is an Oregon public health nurse home visiting program focused on families with children ages 0 to 5 with health and social histories that place them at potential risk for poor health and developmental outcomes. A formal evaluation plan was created through a process involving Harvard University professors and MD-MPH students together with the MCH Nurse Team staff and MCH epidemiologist. The qualitative portion of this evaluation was carried out by our previous CSTE Fellow. Our new Fellow will lead implementation of the quantitative evaluation, including work with our MCH informatics staff to obtain necessary information from a new data platform, analysis of data and translation of those findings into recommendations. These recommendations will be used by public health nurses statewide to improve Babies First! local programs for each family served.

Project #1 Objectives and Expected Deliverables:

- The Fellow will gain an extensive understanding of nurse home visiting, training and reflective supervision of local public health visiting nurses, and needs of local communities.
- Delineation of Babies First! from other state home visiting programs and assessment of its overall value for public health as compared to these.
- Determining impact of Babies First! on family health and whether it is an effective program for improving child health.
- Evaluation report and presentations to state and local Babies First! staff.

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Project #1 Impact:

This evaluation will help to determine the course of the Babies First! program based upon whether it improves outcomes for the families it serves. The impact includes whether the service remains in a similar form, or its enrollment qualifications need to change, or whether it is perhaps absorbed into a different program or another program is absorbed into it. It may provide data and recommendations that can be used for changes to the authorizing legislation, strengthening the program and allowing it to serve more families by funding county and Tribal health departments to increase workforce pay and staffing levels.

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

The Fellow will: (1) work with Emergency Preparedness staff to incorporate the Maternal and Child Health focus into disaster planning and exercises (a large focus of disaster planning in Oregon pertains to a Cascadia subduction zone earthquake); (2) work with MCH staff to include emergency preparedness awareness in existing programs, particularly case management and home visiting for perinatal women and young children; and 3) take emergency preparedness training, including Incident Management. We have a special interest in planning and educational materials for women who are pregnant. These activities will take place in parallel with other duties, with collaboration between Drs. Zane and Putz and the Public Health Division's Emergency Preparation and Response unit leadership to ensure that this work is planned and temporally contained. If a concentrated period of time for this work is needed, the Fellow may spend up to 4 weeks of full-time work in EPR. (Note: in the case of a major disaster or outbreak response, the Fellow's time may be allocated to such response for a longer period, with mentors tracking to ensure that core requirements/competencies of the Fellowship are being attained in that role.)

Of interest: We utilized existing emergency preparedness work in 2020 to respond to COVID-19 and to very large wildfire events. Additionally, Oregon's Perinatal Quality Collaborative, which includes all major hospital systems in the state and community partners, pivoted its OB Hemorrhage learning cooperative into a COVID emergency response technical assistance network, including universal COVID testing of all women during L&D, clinical guidelines for both PPE and for safe delivery and newborn care in hospital, birthing center and home birth environments, and has shared their model and tools with other PQCs around the nation.

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

The Fellow will directly participate in an outbreak or point-in-time environmental health investigation, working with epidemiologists from these areas. This work will involve subject matter learning, on-site investigation, and database design/data collection and analysis, with findings used for public health action. The fellow may follow up by presenting this work more broadly at a state or national conference. Mentors will work with the lead investigative epidemiologist to determine the Fellow's exact role and time commitment as noted above for emergency preparedness and response activities.

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

At the time of this application, we do not have a specific role for this Fellow in COVID-19 response. If a change takes place regarding virulence, etc. we would treat this as an emergency response situation as described above.

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

A primary focus on equity and diversity was taking place in Oregon MCH for 5 years before it became a focus of our larger agency. Extensive trainings, immersive work, and a commitment to changing our internal culture is part of our culture in MCH. We recognize that we all still have far to go, and the larger health department is supporting these efforts from the top down as well. Our Fellow's work will incorporate efforts towards true community engagement, and the analytic work will be equity-focused as well.