Maternal and Child Health
Multnomah County Health Department, Maternal and Child Health/Community Epidemiological Services
Portland, Oregon

Assignment Description

This Fellow is assigned to the Multnomah County Health Department’s (MCHD) Community Epidemiology Services (CES) and Maternal and Child Health (MCH) programs within the Public Health Division. Epidemiologists in CES and the division work with or within the core public health programs in the Department. Through this assignment, our CSTE Fellow can pursue diverse opportunities over the course of his or her fellowship. We ground the position in Maternal and Child Health and from this base the fellow may choose special projects in different areas, either staying within MCH or exploring other epidemiologic subspecialties.

Our goal is to train our fellows as an integral member of the team of epidemiologists and public health professionals who work on the frontlines of public health. Opportunities to collect, analyze, and interpret public health data in ways that directly affect disease control and prevention programs, and are used to advise public health policy abound. We have access to a broad range of data sources, ranging from communicable disease surveillance and vital statistics to electronic health records and medical examiner data. We also work with partners to assess information from programs as diverse as refugee health, ambulance transports, and needle exchanges. Options also exist to design and implement epidemiologic studies of one’s own design.

Day-to-Day Activities

MCHD will involve the Fellow in day-to-day activities and research projects that provide "hands on" applied epidemiology experience.

Functional responsibilities include:

- performing epidemiologic studies and developing public health surveillance systems
- providing consultation to county managers and staff on scientific, analytic, and technical aspects of epidemiologic investigations and public health surveillance
- working with program managers and community partners to develop health interventions, policies, or programs based on epidemiologic findings
- working with partners across the Health Department to define meaningful health and well-being outcomes, and measurable outcomes for Oregon’s statewide Public Health Modernization work
- writing material for internal reports, public information, and peer-reviewed journals
- participating in internal and external meetings as needed to involve project stakeholders and to learn how public health systems operate
Potential Projects

Surveillance: Racial and Ethnic Disparities in Feto-Infant Mortality and Perinatal Periods of Risk Activity

While fetal and infant mortality in Multnomah County has seen a steady decline in the last 10 years, racial and ethnic health disparities in both fetal and infant mortality persist. The rates of infant mortality among African Americans and Native Americans have been at least twice that of non-Hispanic Whites. This project will involve developing timely and accurate surveillance data of infant and fetal mortality in the County and undertaking a Perinatal Periods of Risk (PPOR) analysis.

The PPOR is a complex quantitative methodology developed by the Centers for Disease Control, CityMatCH, and the World Health Organization to understand the causes of excess infant and fetal mortality of a selected population compared to a reference population that has optimal and ideal birth outcomes. This project will also involve working with African American and Native American community stakeholders in developing strategies to enhance community involvement and understanding of surveillance activities and in capacity building to understand surveillance data around fetal and infant mortality.

Surveillance: Pregnancy Risk Assessment Monitoring System (PRAMS) and Pacific Islanders in Oregon

The purpose of this project will be to evaluate the reliability and validity of data from the Pregnancy Risk Assessment Monitoring System (PRAMS) oversample of Pacific Islanders that will take place in the state of Oregon in 2016. This project will involve working with Pacific Islander focused community organizations and stakeholders to understand the cultural appropriateness of PRAMS questions as well as work with these organizations to ensure robust and maximum participation of Pacific Islander communities in the PRAMS survey in Oregon.

Major Project: Improving Maternal, Child, & Family Health (MCFH) Surveillance in Multnomah County and Developing a Framework for Community-Engaged Epidemiology

The purpose of this project will be to assist in evaluating and improving the MCFH surveillance program for Multnomah County. Currently the Multnomah County Health Department is working with community partners to develop a Community Health Improvement Plan (CHIP) focused on racial and ethnic health disparities that is based on a recently completed Community Health Assessment (CHA). This project will involve working with the Oregon Health Equity Alliance, the organization developing the CHIP, in ensuring that the local MCFH surveillance program encompasses recommendations developed in the CHIP and the CHA and that measures and indicators reflect life course theory. Additionally, this project will involve conducting analyses of emerging data sources (e.g., Medicaid data, mental health data, coordinated care organization data, local community surveys, etc.) and develop a strategy to link this data to existing data and integrate these data sources in surveillance efforts. This project will also involve working with community stakeholders to develop
and implement a framework for community engagement and community capacity building in maternal and child health epidemiology and social epidemiology, with an emphasis on local communities most impacted by racial and ethnic health disparities.

**Additional GIS Mapping of Infant and Fetal Mortality Project**
This project will involve the geocoding and mapping of infant and fetal mortality data in Multnomah County in order to understand the spatial patterning and potential clustering of infant and fetal mortality in the County. This project will involve creating heat maps as well as engaging in hotspot analysis using ESRI ArcGIS. Maps developed using infant and fetal mortality data will also be compared to maps that examine poverty, educational disparities, access to healthy food and transportation, proximity to environmental toxins, gentrification, and historical redlining in Portland and Multnomah County.

**Preparedness Role**
The Fellow will have the opportunity to participate in emergency preparedness and response activities and to attend Incident Command training. The person in this position may be expected to share 24/7 coverage activities by participating in the weekly after-hours on-call rotation (with appropriate training and Health Officer support). The fellow may be called upon to represent the County at the local, state, and national level in matters affecting epidemiologic activities --including multi-agency public health emergency preparedness planning and response.

**Mentors**

**Primary**
Aileen Duldulao, PhD, MSW
Maternal and Child Health Epidemiologist

**Secondary**
Claire Smith, MURP
Quality Manager/Senior Research Analyst