

Infectious Diseases

Assignment Description:

The MCH Epidemiology Fellow will be part of the Maternal and Child Health program in the Center for Prevention and Health Promotion. This location allows for a wide range of projects because of the breadth of programs (and databases) available: Maternal and Child Health, Health Promotion and Chronic Disease Prevention, Adolescent Health, Women's and Reproductive Health, Breast and Cervical Cancer Prevention, Oral Health, Genetics, Immunization, and the Women, Infants and Children (WIC) Program.

The primary mentor for the fellow will be Dr. Ken Rosenberg, the MCH Epidemiologist for OFH. The secondary mentor will be Dr. Bruce Gutelius, the interim administrator of the Center for Prevention and Health Promotion. They will develop a fellowship that addresses the CSTE program design and the professional interests of the fellow, and builds on the strengths of the Office and staff. Additional resources are Dr. Katrina Hedberg, State Epidemiologist; and Dr. Melvin Kohn, Administrator of the Oregon Public Health Division (and previous State Epidemiologist). The partnerships within the Public Health Division and with nongovernmental agencies provide unique access and support across multiple programs.

The Oregon Public Health Division has strong connections with local academic institutions including the public health faculties of Oregon Health & Science University (OHSU), Portland State University and Oregon State University. Many PHD staff has appointments at these universities. Many local academics use Oregon PRAMS data for their research. And OHSU is the American home of Dr. David Barker, whose work launched lifecourse epidemiology, including the exploration of fetal exposures on chronic diseases. (The 7th International Conference on Developmental Origins of Health and Disease was held in Portland in 2011.)

Oregon has hosted four MCH Epidemiology Fellows since 2001. The MCH Epidemiology Fellow will be located in the Assessment, Evaluation and Informatics program of the MCH section and will have the opportunity to work across all programs.

Day-to-Day Activities:

Work will include 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, emergency preparedness, and study design and data analysis for presentations and publications. The Oregon Title V program has identified family violence, mental health, obesity prevention and oral health as among our priority needs for the next 5 years.

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 Fellow's education and the Title V program. The Fellow will have unlimited access to the primary supervisor.

Potential Projects:

Birth Defects Registry and Birth Defects Prevention Program: Oregon is beginning its first birth defects registry and birth defects prevention program. We will be using a new methodology (linking birth certificates to hospital discharge data) that will move birth defects surveillance toward the use of electronic health records for surveillance. We will hire a birth defects epidemiologist to start in late 2011; the Fellow will work closely with the birth defects epidemiologist.

Tribal Health: We have a grant from CDC to work with tribal health organizations to improve their access to Public Health Division data, especially PRAMS data. The Fellow will work with the program staff in a variety of roles including developing data as requested by the tribal health organizations.

Early Childhood Home Visiting: We recently completed an Early Childhood Home Visiting Needs Assessment as a part of a grant application for Maternal, Infant, and Early Childhood Home Visiting (MIECHV). As a result of this application, we have received two federal MIECHV grants which will allow us to increase early childhood home visiting in eight counties. The Fellow will be part of the team that develops the database to track home visiting activities and uses the data to inform collaborating agencies.

PRAMS: Oregon conducts both the PRAMS survey (with oversampling of 4 racial/ethnic minorities) and PRAMS-2, a follow-back survey that re-interviews PRAMS respondents when the child is 2 years old. The Fellow will join the PRAMS team, learn how the data are collected, analyze data from PRAMS and PRAMS-2, and learn how to use the data to communicate with both professional and lay audiences.

Surveillance System Evaluation: We are participants and facilitators in a statewide process to standardize data collection for multiple early childhood programs. One possible project for the Fellow would be to evaluate the process and make suggestions on how to improve the data system. Another possible evaluation project would be to evaluate the PRAMS and PRAMS-2 surveys with particular emphasis on optimizing data quality and increasing response rate (especially among women of color).

BRFSS: The Fellow may design and carry out studies using data from Oregon Behavioral Risk Factor Surveillance System around women's health issues and family history. Among the possible projects is 2011 data on Adverse Childhood Events (ACEs) that will be analyzed for program development possibilities. We are considering the development of a telephone-based Child Health Survey (similar to the Colorado Child Health Survey) using families contacted by the BRFSS phone interviewers.

Medicaid: Over the past few years, we have increased our use of Oregon Medicaid data. Current work is being done to make the data interoperable with other early childhood programs. Our goal is to expand our use of Oregon Medicaid data. The Fellow may use Oregon Medicaid data for a variety of MCH projects.

Maternal Mental Health: Working with multiple partners, we recently completed a report to the Oregon state legislature about maternal mental health. Recommendations included the importance of increased screening and treatment of pregnant and postpartum women with mental health problems, especially depression and anxiety. We expect to develop some program activities to increase prenatal care providers counseling and screening women. The Fellow may explore PRAMS data to establish the baseline for prenatal provider counseling and may help with program development.

Elementary School Survey: We piloted surveys of fifth graders a few years ago including such topics as diet, exercise and bullying. We are interested in expanding this survey – perhaps using electronic data collection methods.

Evidence-Based Public Health: Dr. Rosenberg is a member of the Best Practices Review Panel of the Association of Maternal and Child Health Programs (AMCHP). The Fellow will have the option to work with Dr. Rosenberg in evaluating programs that have been submitted to AMCHP for evaluation and feedback on the evidence supporting the effectiveness of the programs.

Life Course Public Health: We have begun integrating our maternal and child health program with our chronic disease prevention program. This is likely to lead to a Journal Club and new pilot programs (perhaps including gestational diabetes) that will link events before and during pregnancy with chronic disease prevention.

Child Health Record and Health Information Exchange: Efforts are in place to develop a health information exchange between Oregon health providers and public health. This might include the development of a child health record similar to an electronic medical record. It is expected that much work will be done in this area over the next two years.

Oral Health: The Fellow may use oral health data from a variety of sources to help us understand early childhood caries and oral health of pregnant women. Portland is having a very public debate about whether to fluoridate our water. The Fellow may participate in preparing continuing education materials for health professionals about community water fluoridation. We are currently conducting our third survey of elementary school oral health (a stratified cluster sample with on-site oral examination of first, second and third graders). This survey, for the first time, has examiners measuring the height and weight of the children which will allow us to explore childhood obesity among Oregon schoolchildren.

Adolescent Health: Oregon's Youth Risk Behavior Surveillance Survey (called Oregon Healthy Teens) surveys 8th and 11th graders. We are particularly interested in OHT data on alcohol use and BMI.

Outbreak Investigation: The Fellow will participate with the Oregon Acute and Communicable Disease Prevention program in one or more outbreak investigations.

Fact Sheets: The Fellow may create policy fact sheets that assist in translating data to suggest directions for legislative and program action to improve perinatal health.

Statewide Publications: Oregon has multiple publication vehicles for getting public health information out to local, state and public partners. The Fellow will gain experience in writing for multiple audiences (health care providers, newspapers, academic journals, etc.) about new MCH developments.

Preparedness Role:

The Fellow will: (1) work with Emergency Preparedness staff to incorporate the Maternal and Child Health focus into disaster planning and exercises; and (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.

Our most recent MCH Epidemiology Fellow: (1) took preparedness trainings; (2) worked with the state Immunization Program to assist in shipment of the antiviral Tamiflu from state health department to local health departments; and (3) worked with the state Immunization Program to develop a database for reporting on data regarding allocation, distribution and use of H1N1 vaccine, antivirals, and personal protective equipment.

Assignment Location: Portland, OR

Primary Mentor: Kenneth Rosenberg, MD, MPH
MCH Epidemiologist

Oregon Public Health Division

Secondary Mentor:

Bruce Gutelius, MD, MPH
Interim Center Administrator, Center for Prevention and Health
Promotion
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