Chronic Disease

The Non-Infectious Conditions Epidemiology (NICE) unit and the Office of Community Wellness and Prevention (CWP) propose mentoring a Chronic Disease Fellow at the Washington State Department of Health (WSDOH). NICE focuses on epidemiology of chronic disease, injury, and non-infectious aspects of maternal, child, and environmental health. NICE provides epidemiologic services to state and local health, other health-related organizations, and the public. NICE has responsibility for chronic disease cluster investigations.

CWP contains programs for chronic disease and related risk factors, including prevention and control of cancer, asthma, heart disease, stroke, diabetes, physical activity, nutrition, and tobacco. These programs provide interventions at multiple levels of the social ecological model of disease prevention and control, including providing education and skills training to individuals, encouraging social support for behavior change and disease self-management, building community capacity to engage in policy and environmental change work, instituting systems change to improve the quality of health care, and implementing policies to create environments where the healthy choice is the easy choice. CWP's programs target the general population, as well as low-income residents and people of color; several programs target youth.

This assignment provides opportunities to focus on surveillance and epidemiology for chronic diseases and related risk factors at several levels of the social ecological model. As a start, we propose focusing on providing assessment and evaluation support to the Healthy Communities project. For this project, CWP is providing technical assistance and training to five rural counties to plan and implement policy, system and environmental changes to improve physical activity and healthy eating and reduce or prevent tobacco use. In addition to more traditional epidemiologic training, this focus would provide the Fellow with an opportunity to become steeped in the science of environmental and policy change to foster healthy behaviors, as well as providing opportunities for understanding complexities of working within community settings.

Day-to-day activities include working with supervisors, coworkers, and external partners to plan surveillance, epidemiology and evaluation projects; develop study protocols; analyze and interpret data; and prepare, review and present findings. Much of this work would occur at WS-DOH with opportunities for fieldwork in the five Healthy Communities counties.

For Healthy Communities, as well as other projects in CWP, the work would focus on

1) expanding data collection and exploring new data sources, including data to be collected at the local level by communities;

2) analyzing data from existing and new data sources; and

3) evaluating the effectiveness of interventions. These activities would include literature review; working with advisory committees and with the stakeholders in local communities who will use the data or

survey instrument; developing and piloting questions to add to ongoing surveys such as the Behavioral Risk Factor Surveillance System (BRFSS); designing and implementing program evaluation studies; and analyzing data, writing reports and developing oral presentations for technical and lay audiences. In addition to working as a team member, the Fellow would be expected to take a leadership role for some aspects of project implementation.

Potential Projects:

1. Work with the Healthy Communities epidemiology team to provide assessment and evaluation support to the Healthy Communities project by participating in one or more of the following activities:
    - Refine questions for a BRFSS module on perceptions related to the built environment for physical activity
    - Identify local sources of data that can be geocoded to map indicators of the built environment as described in the CDC's Recommended Community Strategies and Measurements to Prevent Obesity in the United States.
    - Use the experience of the five rural communities in implementing data collection tools to develop standard tools for baseline community assessment and evaluation in other communities that are engaged in policy and environmental change to support healthy behaviors.
    - Evaluate the effectiveness of CWP's capacity building trainings offered to the five rural communities.
    - Evaluate policy implementation and enforcement in the five Healthy Community counties.
    - Develop a descriptive epidemiology of the built environment using both perceived and objective measures from administrative data.

2. The School Health Profiles Survey (Profiles) is a biennial survey that monitors school policies and programs related to physical activity, nutrition, and tobacco-use. The Fellow could analyze the 2008 Washington data, compare 2008 and 2006 results, and update fact sheets that WSDOH and schools use allocate resources, guide professional development, and improve school health programs and policies. Profiles could be linked to the Healthy Youth Survey that provides self-reported, health-related information from students in grades 6, 8, 10, and 12. By linking these datasets, the Fellow could assess the associations of school policy with student reports of physical activity, nutrition, and smoking.

3. Conduct a surveillance evaluation by evaluating

    - BRFSS as a system to collect information on chronic disease prevalence by conducting a general evaluation of BRFSS as a surveillance system, updating previous work on asthma in children, and compiling and expanding recent work comparing BRFSS to Washington State data collected in a door-to-door survey.

• The potential usefulness for surveillance of the Breast and Cervical Health Program's administrative database.

• Data related to heart disease and stroke and make recommendations for development of a routine surveillance system.

• The School Health Profiles system.

4. WSDOH receives about 18 inquiries annually regarding clusters of chronic diseases. The Fellow would be involved in responding to these clusters. The Fellow could work with a local health department on an infectious disease outbreak.

Emergency Preparedness:

NICE supports several WS-DOH programs in responding to natural disasters, pandemics, and industrial or terrorist events. We are currently providing assistance with several components of the H1N1 influenza surveillance. NICE staff developed a normative seasonal curve for the percentage of Washington deaths associated with influenza and pneumonia. During the coming months, we will compare weekly percentages of pneumonia and influenza deaths reported through the Electronic Death Reporting System and reported by sentinel cities and counties to the normative curve to help determine the extent of the epidemic. Our EIS Officer received training to use and evaluate data for rapid influenza tests reported by laboratories and local health jurisdictions. This component of H1N1 surveillance provides information about the heterogeneity of influenza-like illness (ILI) activity in the state and permits monitoring the percentage of circulating influenza virus that is type A. The CWP Tobacco Program has lead back-up responsibility for analyzing the BRFSS modules related to H1N1. In the absence of a real emergency, the Fellow can participate in table top exercises and receive training in handling emergency medical materials and in staffing the public emergency call center.

Assignment Location:	Olympia, Washington
Primary Mentor:	Juliet VanEenwyk, PhD, MS
	State Epidemiologist, Non-Infectious Conditions
Secondary Mentor:	Marilyn Sitaker, MPH
	Lead Epidemiologist and Evaluation Coordinator