

Chronic Disease

Information About the Chronic Disease and Environmental Epidemiology Program:

The CSTE Epidemiology Fellow will have a unique opportunity to explore a variety of applied epidemiology experiences within the Health Promotion and Chronic Disease Division of the Minnesota Department of Health. The Division currently conducts disease surveillance and prevention programs in the areas of heart disease, diabetes, arthritis, asthma, injuries and cancer. The Chronic Disease and Environmental Epidemiology Section (CDEE) Section also conducts investigations of occupational and environmental health problems and works closely with researchers at the University of Minnesota School of Public Health in Minneapolis. Information about the Division's programs can be found on our website at www.health.state.mn.us/divs/hpcd.

Daily Activities and Data Analysis Projects:

Working under the guidance of an experienced team of epidemiologists, the CSTE Epidemiology Fellow's daily activities will initially be focused on new analyses of several chronic disease surveillance data sets, with a particular focus on indicators of chronic respiratory and heart disease. Dr. Mary Winnett, our State Chronic Disease Epidemiologist, is committed to making reporting on Chronic Disease Indicators (as defined by the Sept 10 2004 issue of MMWR) a regular part of chronic disease surveillance at MDH. While the CDC plans to report state level data on indicators derived from data sources to which it has ready access, it is up to individual states to report on hospital-discharge data (HDD) based Indicators. Epidemiologists in our Asthma and Diabetes units have worked with HDD in their respective areas, but at present the Heart Disease and Stroke Program has limited capacity to analyze HDD. The fellow may potentially look at other data sources, such as Medicaid or Medicare data, and may examine chronic disease co-morbidities and disabilities as time allows and the candidate's interests dictate.

The candidate will also join with a team of epidemiologists and environmental health scientists in the early development of an Environmental Public Health Tracking (EPHT) program by evaluating chronic disease indicators for their application to data linkages with environmental data, such as air quality data obtained from the State environmental agency. Dr. Jean Johnson is presently leading efforts at MDH to submit a very competitive application for funding under the CDC EPHT program in 2006. If successful, the EPHT program will evaluate trends in chronic disease indicators that may be related to changes in environmental indicators and interventions.

MDH will also offer the fellow a unique opportunity to conduct innovative, in-depth research analyzing National Asthma Survey data that will be available in mid-2006. Minnesota is one of three states selected to participate in the new CDC Asthma Call-Back Survey in 2005 and is one of only 6 states that have received a 5-year CDC Asthma Implementation Grant. The asthma call-back survey involves a follow-up interview of approximately 1,000 people in Minnesota, including children, who reported having asthma in the Behavioral Risk Factor Surveillance (BRFSS) telephone survey. Data covered in the asthma interview include medication use, triggers, asthma management, home environment and work-related asthma. Information learned from this analysis will be applied to programming and interventions conducted by the Minnesota Asthma Program. The candidate will work closely with our asthma epidemiologist, Wendy Brunner, M.S., who recently authored the MDH report, Asthma in Minnesota.

Minnesota-Johnson

Opportunities for Surveillance System Evaluations and Work on Interdisciplinary Teams:

In all analysis activities, the CSTE Epidemiology Fellow will be expected to evaluate the strengths and limits of the data, pioneer new methodologies, and establish and document useful analysis methods and queries for others to follow in the future. The CDC Fellow will work with staff in the Health Economics department to become familiar with the hospital discharge data set; and would be expected to make contact with epidemiologists at the CDC and in other states. The EPHT program involves collaborations with scientists from other Divisions and Agencies, businesses, the University of Minnesota, and non-profit organizations.

Opportunities for Field Investigations:

The CDEE Section is also charged with responding to community concerns about disease clusters and conducting investigations as needed. For example, the candidate may participate in ongoing investigations being conducted in collaboration with the University of Minnesota School of Public Health in response to the occurrence of asbestos-related disease from environmental and occupational exposures. Other opportunities exist in addressing indoor environmental triggers for asthma.

Role in State Emergency Preparedness Plan:

The HPCD Division is engaged in planning activities with the MDH Office of Emergency Preparedness to develop plans for long-term surveillance activities as part of the State All-Hazards Emergency Response Plan. The candidate will be encouraged to join in emergency planning activities and discussions related to environmental and chronic disease surveillance.

Assignment Location: St. Paul, Minnesota

Primary Mentor: Jean Johnson, PhD, MS
Epidemiologist Principal

Advanced Degrees: PhD, University of Minnesota (1998)
MS, University of Minnesota (1983)

Secondary Mentor: Mary Winnett, MD, MPH
State Chronic Disease Epidemiologist

Advanced Degrees: MPH, University of Minnesota (1996)
MD, Virginia Commonwealth University (1992)