

Infectious Disease

The Fellow would conduct projects at the Mecklenburg County Health Department (MCHD) and the Gaston County Health Department (GCHD). Under the supervision of Susan Long-Marin, DVM, MPH, Epidemiology Manager at MCHD, s/he would work four days a week at GCHD and one day a week at MCHD, receiving an urban experience in MCHD's established epidemiology program ...and in rural, urban, and suburban communities at GCHD, where s/he would be a solo practitioner.

Mecklenburg County has 796,372 residents, the largest in North Carolina (Census 2005), which are concentrated in the City of Charlotte. At MCHD the Fellow would focus on infant mortality and, as time allows, communicable disease:

- Infant Mortality:** The Fellow would work with linked birth-death data sets to describe infant mortality in Mecklenburg County with a focus on the disparity between white and black rates, which have not decreased even as rates have fallen for both groups. S/he would (1) review and analyze five years of infant mortality data; (2) write a report of findings and recommendations and prepare a PowerPoint presentation; (3) make presentations to local agencies, providers, and groups working on children's health issues, e.g the Children's Alliance and the Child Fatality Prevention and Protection Team; and (4) submit findings to APHA and other groups for presentation.

- Communicable Disease:** The Fellow and an MCHD epidemiologist would develop a template for expanding the current communicable disease report from case numbers and endemic levels to include data by onset with trends in seasonality, risk factors, and geographic location.

- Other:** The Fellow would work on EpiPreparedness Team activities including outbreak investigations and state/regional preparedness exercises and planning.

Gaston County, contiguous with Mecklenburg County, is home to 195,000 residents. Many of its residents are poorly educated and have low incomes. The Fellow would address a wide-range of topics, with an emphasis on communicable disease:

- Communicable Disease:** The Fellow would: (1) develop a database to track CDs by onset, risk factors, seasonality, and geographic location; (2) conduct outbreak investigations with the Epi Team; (3) map and analyze CD outbreaks; and, (4) help conduct control activities. This project would be conducted with GCHD's CD Nurse and CD Supervisor.

- Locating a Public Health/Community Health Center:** GCHD and Gaston Family Health Services (GFHS) – the County's sole Community Health Center – seek a new location for providing medical care to underserved populations. The Fellow would: (1) conduct a patient origin analysis using GCHD and GFHS patient address and diagnosis data; (2) discuss needs with residents near potential sites; (3) present recommendations to the

Board of Health and GFHS Board of Directors; and, (4) recommend upgrades to the patient encounter database. This assignment would be conducted with the GCHD Health Director, GFHS Executive Director, and GCHD Medical Records Supervisor.

- Infant Mortality Gaston County's IMR exceeds the State: White- Gaston, 8.1/NC, 6.4; Minority- Gaston, 17.2/NC, 14.9; Total- Gaston, 9.8/NC, 8.8. The Fellow would: (1) analyze three years of data from the Gaston Healthy Baby Program, which helps prevent infant mortality among high-risk populations; (2) develop recommendations with the Gaston Healthy Baby Advisory Committee for reducing infant mortality in high-risk populations; and, (3) present results to professional and lay groups. This assignment would be conducted with the Assistant Personal Health Services Administrator.

- Municipal Water and Sewer Lines: Gaston County has an estimated 45,000 wells and septic systems. The Fellow would: (1) map locations and attributes of private and community wells and under-ground storage tanks; (2) assess the risk to neighborhoods posed by wells and storage tanks; (3) create a priority listing of neighborhoods needing municipal water and sewer lines; (4) present results to local professional and lay groups; and, (5) recommend upgrades to the GCHD well/septic database. This assignment would be conducted with environmental specialists at GCHD and the County Cooperative Extension.

- Other Assignments: The Fellow would serve on the GCHD Epidemiology Team, the Gaston County Local Emergency Planning Committee and, as time permits, conduct needs assessments and program evaluations.

The Fellow would set his/her daily schedule. S/he would work on State emergency preparedness exercises and with our Public Health Regional Surveillance Teams (PHRST) which tracks and responds to syndromic conditions reported by area Emergency Departments.

GCHD will provide \$3,500 to attend a national conference during the assignment to present a paper at a public health meeting of his/her choice. It will fund the Fellow to annually attend eight in-state conferences, professional meetings, and education programs. The Fellow would be reimbursed for in- and out-of-county travel.

Assignment Location: Charlotte, NC (Mecklenburg County) and Gastonia, NC (Gaston County)

Primary Mentor: Susan Long-Marin, DVM, MPH
Epidemiology Manager

Advanced Degrees: DVM, Virginia Polytechnic Institute and State University (1990)
M.P.H., University of South Carolina (1994)

Secondary Mentor:

William Gross, MPH
Allied Health Administrator

Advanced Degrees:

MPH, University of California, Berkeley (1982)