

Chronic Disease

At the Maine Center for Disease Control and Prevention most epidemiologic support for chronic disease programs is provided by members of the Epidemiology Team, co-led by Dr. Katie Meyer (primary mentor). The Team is composed of five members with exemplary experience and credentials in academic and applied epidemiology. The Fellow would work closely with members of the Team as well as with Dr. Molly Schwenn (secondary mentor), who serves as both Medical Director for the Maine Cancer Registry and medical consultant to other chronic disease programs.

The Fellow would have a range of opportunities available to them across the Division of Chronic Disease. However, we have chosen to focus on tobacco control efforts in Maine and tobacco-related cancers. We believe that this approach can provide a Fellow great exposure to a full range of public health program and applied epidemiology activities, while also providing a more in-depth experience within a specific content area. This approach would have the Fellow most closely working with the Maine Cancer Registry and Maine's tobacco control program, the Partnership for a Tobacco-Free Maine (PTM).

In terms of other Division activities, there are surveillance systems in place for diabetes, asthma, oral health, physical activity and nutrition, and cardiovascular disease. In each area there would be opportunities for expansion of surveillance activities or surveillance evaluation. A close working relationship between the Divisions of Chronic Disease and Family Health provides rich opportunities for cross-Division work. Also, the Maine Cancer Registry collaborates with the Environmental Health Tracking Program, one of 16 CDC funded state units forming a network. A CSTE fellow could have the opportunity to monitor a national EPHT cancer indicator.

In addition, previous CSTE Fellows have had the opportunity to work on several outbreak investigations with members of the Division of Infectious Disease. These experiences have included data collection, analysis, and publication. Members of the Epidemiology Team are part of Maine's emergency response team. The response team offers ongoing training, in which the Fellow can participate. The Fellow would be linked with appropriate personnel on the response team to discuss possible projects.

Specific topics of interest in the area of cancer include:

One project would explore possible reasons for Maine's increased lung cancer mortality rate in women. While the rate in men has declined over time, that for women has increased. Specifically, to what extent can these differences be explained by different trends in gender-specific tobacco use? These analyses would use data from the Maine Cancer Registry, vital records, and a variety of smoking-related data, including the Adult Tobacco Survey, the Tobacco-Use Supplement of the Current Population Survey, the Behavioral Risk Factor Survey, and non-Maine specific historical information on gender-specific tobacco use.

The Maine Cancer Registry is also interested in validating smoking status data as reported on cancer incidence reports. It is unclear whether reported smoking status is accurate and useful. The Fellow would compare data from the Maine Cancer Registry with data collected, by the Fellow, on smoking status, perhaps in medical records.

Another surveillance evaluation-type project would be to study the extent to which cancer death data are obtained from death certificates. Ideally, cancer incidence data are obtained from cancer registrars based in hospitals. We would like to better understand how many cases we learn about strictly through death certificates, and who those individuals are as compared to those who we capture through incidence reporting. The Fellow would use data from the Maine Cancer Registry, Maine vital records, and the National Death Index.

A possibility for cancer-related surveillance projects is to create a comprehensive cancer surveillance system. Currently cancer surveillance in Maine, and many other states, relies heavily on cancer incidence and death data. We would like to continue expansion of the cancer surveillance activities to include risk factors for cancer, screening prevalence, and aspects of the cancer care system.

Specific topics of interest in tobacco prevention and control:

The PTM would like to better understand smoking in the young adult population, particularly whether smoking initiation has shifted from high school students to young adults. The adolescent smoking rate has clearly declined in the past decade, but similar decreases have not been observed in the young adult population. Understanding the dynamics behind this pattern of smoking is vital to planning prevention approaches in the young adult population. Such a difference could result from an increase in the age of smoking initiation or could be due to population differences, including differences in survey coverage (e.g., adolescent non-smokers may selectively migrate out of the state or enter college where the telephone survey do not capture them). State and national survey data and academic studies would form the basis of this exploration.

Another project around adult smokers is comparing characteristics/risk profiles of current adult smokers to adult smokers in the past. A similar analysis in youth revealed that smoking has become concentrated in high risk groups. A specific area of interest is smoking in the low income and Medicaid populations, whose smoking prevalence is twice as high as that in other adults. This information would be used to understand populations in which the tobacco program's efforts around prevention and cessation have been successful and help guide the creation of future public health interventions and messages toward the appropriate population. Analyses would be conducted with the Behavior Risk Factor Survey, the Adult Tobacco Surveys, and the Tobacco Use Supplement of the Current Population Survey.

Pregnant women are one of the PTM's priority populations, and the program is interested in better understanding tobacco use in this group. Analysis of the Pregnancy Risk

Assessment Monitoring System (PRAMS) data would examine trends in smoking during pregnancy, including relapse. Goals of the analysis would include understanding who smokes during pregnancy, whether smoking has differentially changed over time with respect to demographic or other variables. Maine's PRAMS is one of the longest running PRAMS, with more than 10 years of smoking data.

Many data sources are available for tobacco surveillance in Maine. These include the Adult and Youth Tobacco Surveys, the Youth Risk Surveillance Survey, the Behavioral Risk Surveillance Survey, the Pregnancy Risk Assessment Monitoring System, the Tobacco Use Supplement of the Current Tobacco Survey, the National Survey of Children's Health, the Maine Child Health Survey, as well as tobacco consumption data.

Assignment Location: **Augusta, ME**

Primary Mentor: Katie Meyer, ScD, MPH
Chronic Disease Epidemiologist, Maine Center for Disease
Control and Prevention
Assistant Research Professor, Department of Applied
Medical Sciences,
University of Southern Maine, Portland, ME.

Advanced Degrees: ScD, Harvard School of Public health (2002)
MPH, University of Minnesota (1997)

Secondary Mentor: Molly Schwenn, MD
Medical Director for the Maine Cancer Registry and
Division of Chronic Disease
Maine Center for Disease Control and Prevention