

## Heart Disease and Stroke

### Colorado and Michigan

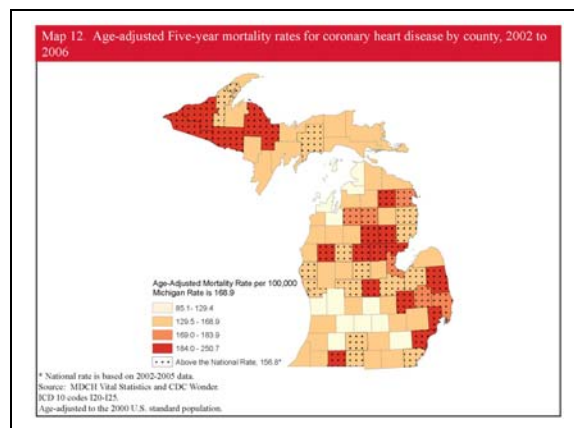
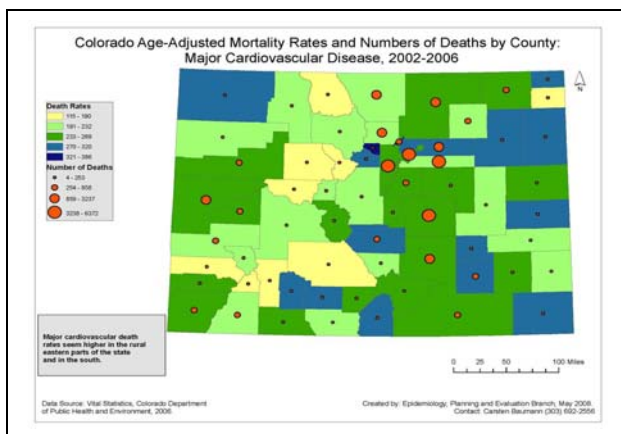
#### Building Capacity to Use GIS for Heart Disease and Stroke Prevention

##### Public Health Problem

To identify local communities with the greatest burden of heart disease and stroke and develop prevention programs and policies tailored to the cultural, socioeconomic, and physical conditions of those communities.

##### Geographic Information Systems (GIS)

In Colorado and Michigan, state health department staff participated in intensive, hands-on GIS training collaboratively provided by the Centers for Disease Control and Prevention (CDC), National Association of Chronic Disease Directors, and Duke University. The comprehensive training included an initial needs assessment for each state, expert GIS training from analysts at Duke University, numerous case studies and exercises, and ongoing technical support/assistance. The training was also designed to enhance integration across CDC-funded state programs for chronic disease prevention. In addition to staff from the state heart disease and stroke prevention programs, the participants included staff members from the state cancer, tobacco control, diabetes, maternal and child health, nutrition and physical activity, and injury programs.



##### Implications and Impact

Staff members from health departments in both states have mastered the ability to examine the geographic disparities in heart disease and stroke among their local communities. With this highly valuable skill, they have developed customized maps that have been used to directly address the priorities of the state health departments, enhance the functioning of partnerships (both externally and internally), bring new partners to the table, and inform policies and programs tailored to the specific needs of communities with heavy burdens of heart disease and stroke.

## Heart Disease and Stroke

### Minnesota

#### **Empowering Women Through the SagePlus WISEWOMAN Program**

##### **Public Health Problem**

Historically, the population of Minnesota has been predominately white. It is projected, however, that between 2000 and 2015, Minnesota's population of persons of Hispanic/Latino descent will increase by 98 percent. People of this ethnicity already bear the greatest burden of health disparities in the state. During 2004, 34.2 percent of Minnesota's Hispanic/Latino population, versus only 7.4 percent of the state's total population, was uninsured.

##### **SagePlus**

The CDC originally funded the Minnesota Department of Health in 2004 to set up WISEWOMAN programs in local Breast and Cervical Cancer Early Detection Program provider sites. Since that time, the WISEWOMAN program—known in Minnesota as SagePlus—has grown from 3 to 10 provider sites. Additional state funding sources have been obtained to enhance the services offered to eligible women in need.

To reach the growing Hispanic/Latino population, the Minnesota Department of Health launched a SagePlus site in the heart of St. Paul's Hispanic/Latino community. This site, housed in a local Breast and Cervical Cancer Early Detection Program clinic, provides much needed screenings and prevention services to a population in which only 4 percent of the clients have health insurance.

Since its opening in 2007, this SagePlus site has screened nearly 300 women for chronic disease risk factors, of which 80 percent 80% of the women screened in 2007 identified themselves as being of Hispanic/Latino descent and of these, 40 percent participated in lifestyle education or interventions.

##### **Implications and Impact**

Through SagePlus, hundreds of women in Minnesota are receiving medical screenings, referral, and lifestyle interventions that they might not otherwise receive. WISEWOMAN is providing women with tools that empower them to take greater control of their health and well-being.

## Heart Disease and Stroke

### North Carolina

#### **Implementing the Chronic Care Model**

##### **Public Health Problem**

The American health care delivery system has significant shortcomings, including the gap between evidence-based recommendations and medical practice, limited use of technology, a lack of integration among clinical disciplines, and inadequate coordination among clinicians.

##### **Diffusion of the Improving Performance in Practice (IPIP) Initiative**

The North Carolina Heart Disease and Stroke Prevention Program has provided resources at the state and community levels to support implementation of the IPIP initiative. The three-year pilot program, with support from the American Board of Medical Specialties and the Robert Wood Johnson Foundation, helps physicians in North Carolina measure clinical performance and assemble outcomes data on asthma, diabetes, and hypertension. The IPIP initiative works with Community Care of North Carolina, a coalition of Medicaid providers comprising 14 networks across the state, to assist with integration of the chronic care model into treatment for diabetes, asthma, and hypertension. The North Carolina Heart Disease and Stroke Prevention Program provides funding for two local health departments in Pitt and Henderson Counties to support the IPIP initiative. Local health departments link practices participating in the IPIP initiative with local resources to support management of hypertension in high-risk patients.

##### **Implications and Impact**

Implementation of the chronic care model has been shown to improve control of high blood pressure in at-risk patients, which in turn reduces the risk of heart disease and stroke. The IPIP initiative has served as a model for the North Carolina Governor's Healthcare Quality Initiative, adopted in 2008, which provides a set of best practice guidelines to more effectively treat the most widespread and costly chronic medical conditions: diabetes, asthma, hypertension, congestive heart failure, and heart attack.

**Utah**

**Partnering with Private Health Plans to Improve High Blood Pressure Control**

**Public Health Problem**

Having high blood pressure increases one's chance for developing cardiovascular or cerebral vascular disease. Research indicates a 12- to 13-point reduction in systolic blood pressure can reduce heart attacks by 21 percent, strokes by 37 percent, and cardiovascular deaths by 25 percent. National estimates suggest that less than one-third of patients with high blood pressure have it under control. In 2005, 53.2 percent of Utah adults with high blood pressure reported taking medication to control hypertension.

**Health Plan Quality Improvement for Blood Pressure**

Six of Utah's largest health plans agreed to work with the Utah Department of Health's Heart Disease and Stroke Prevention Program to implement provider and health plan member interventions to improve blood pressure control. A Health Plan Work Group was established to track progress, trouble shoot, and identify needs and areas for improvement. Guidelines for blood pressure control and provider interventions were discussed, and contracts with health plans finalized. Interventions for members were developed to promote self-management of high blood pressure. Healthcare Effectiveness Data and Information Set (HEDIS) data were requested on blood pressure control. A review of this project in two managed care plans documented improvement in blood pressure control.

**Implications and Impact**

This collaborative project between the Utah Department of Health Heart Disease and Stroke Prevention Program and two Utah managed care organizations to improve blood pressure control began in 2004. Based on the data collected, this intervention has been identified as a promising practice. The Utah program provided blood pressure kits to promote self-management. The development of a hypertension care process model served as a basis for statewide continuing medical education and the distribution of hypertension treatment guidelines. Follow-up with members of one of the health plans showed that for its overall member population, the HEDIS indicator for blood pressure control ( $\leq 140/90$  mm Hg) improved after implementing the intervention from 37.5 percent in 2004 to 55.0 percent in 2007, a 32 percent change. A cost-effectiveness evaluation of this intervention is being analyzed by the Division for Heart Disease and Stroke Prevention (DHDSPP). Using data on program costs and changes in hypertension control, this analysis models the cost-effectiveness of the intervention for a variety of health outcomes. Publication of the results is anticipated in early 2009.