

# HEART DISEASE AND STROKE

## PREVENTION PROGRAMS ARE MAKING A DIFFERENCE IN HEALTH OUTCOMES

2011

### Success Stories

#### Improving Clinical Preventive Services to Reduce High Blood Pressure in Kansas

Having high blood pressure increases a person's risk of heart disease and stroke. In 2005, 24.2% of Kansas adults aged 18 years or older reported that they had high blood pressure. The prevalence is even higher among older age groups, with one-third of adults aged 45–64 years and about half of those aged 65 years or older reporting high blood pressure. Among all adults with high blood pressure in Kansas, 19.6% said they were not taking any medication to control this condition.

To help improve the quality of health care for people with high blood pressure in Kansas, officials in the state's Heart Disease and Stroke Prevention Program and the Diabetes Quality of Care Project formed the Kansas Quality of Care Project in 2007. As part of this project, 13 clinics throughout the state received guidelines and educational materials for patients on how to prevent and manage high blood pressure. The clinics also received assistance and training on how to improve the quality of the data they collect, use these data to identify barriers to care and gaps in services, link patients to community resources, and share success stories.

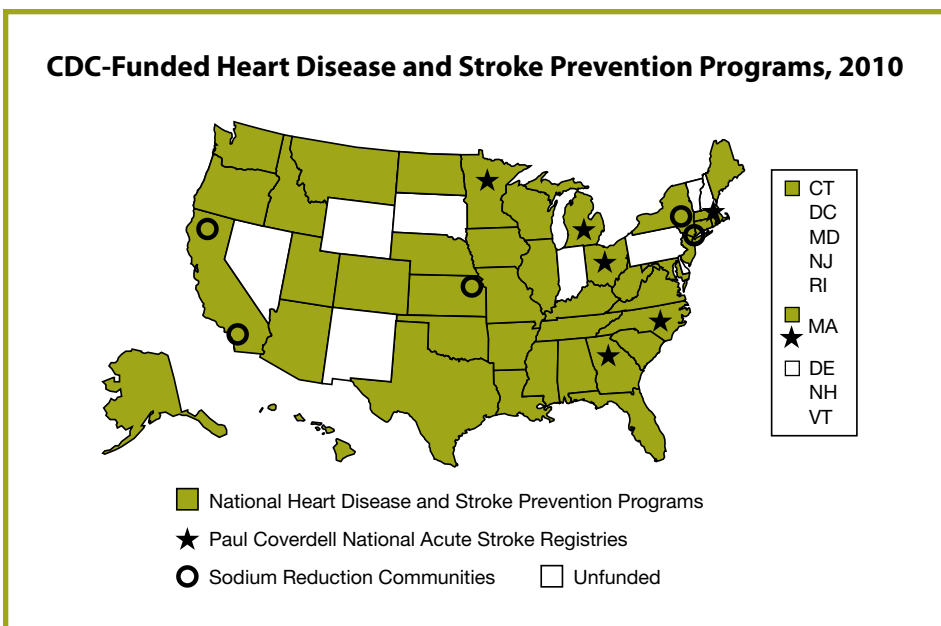
In 2009, 11 clinics submitted data for 2,303 patients with high blood pressure (1,449 without diabetes, 854 with diabetes). The data showed that the percentage of patients without diabetes who had their blood pressure under control increased from 54.6% in 2007 to 63.0% in 2009. Increases also were reported in the percentage of clinics that were referring patients with high blood pressure to behavior-change and peer-support programs (from 69.2% to 75.0%) and that were distributing

guidelines on physical activity and blood pressure control to patients (from 69.2% to 75.0%). In addition, the data showed that 98% of all project participants with high blood pressure had their blood pressure measured during at least one clinic visit in 2009, and 84% were taking medication to control this condition.

Doctors who participated in the Kansas Quality of Care Project reported that the project made them more aware of the importance of following treatment guidelines and developing policies to help patients better manage their blood pressure.

#### Collaborating to Control High Blood Pressure in Community Health Centers in Montana

Controlling blood pressure is an important way to reduce a person's risk of dying from a heart attack or stroke. In 2007, health officials in Montana's Cardiovascular Health Program





implemented a program to help state residents with high blood pressure get it under control. They focused on low-income people who receive services from federally funded Community Health Centers. Clinic staff educated patients about high blood pressure, taught them how to monitor their blood pressure at home, reviewed the measurements recorded by patients at home, and adjusted medications when needed.

The goal was to increase the percentage of Community Health Center patients who have their blood pressure under control from 46.7% to 50% by June 2010. The program was implemented in nine Community Health Centers and one satellite clinic. During the 3-year program, 1,676 patients participated (712 with high blood pressure and diabetes and 964 with high blood pressure and no diabetes). The average age of the patients was 57 years; 58% were women, most were white, and 41% did not have health insurance. Of the 1,676 patients who participated in the program, 607 received blood pressure kits that included an automated blood pressure cuff, educational materials, and a pedometer. To receive a kit, patients with uncontrolled high blood pressure had to agree to check their blood pressure at home weekly.

An evaluation of the program in June 2010 found that the overall goal had been met: 50.2% of participants had their blood pressure under control. Control rates increased from 33% to 42% for patients with diabetes and from 56% to 62% for those with no diabetes. Control rates for patients with uncontrolled high blood pressure who received blood pressure kits increased from 0% to 47%. The average blood pressure of patients who received blood pressure kits also decreased.

The success of this program prompted officials in Montana's Cardiovascular Health Program to offer additional blood pressure monitors and patient educational materials through participating Community Health Centers as a way to help more patients in the future. These resources will help to sustain the project for years to come.

### **Funding for New Trauma Care System Will Improve Heart Attack and Stroke Response in Michigan**

Until recently, Michigan was one of only three states without a funded trauma care system. Despite passage of legislation and

rules to support such a system in 2004 and 2007, no funding was allocated to hire and train staff, set up a registry to collect patient data, and implement programs.

In 2007, CDC provided funding to Michigan to help improve emergency care for people who suffer heart attacks or strokes. Staff members working in the area of heart disease and stroke prevention in the Michigan Department of Community Health (MDCH) used this funding to conduct the following activities:

- Assess how the state's existing emergency medical services (EMS) systems respond to cardiac and stroke emergencies. Assessments were conducted in 2008 and 2010 to establish a baseline and identify where improvements were needed. Findings were used to identify priority activities and track progress.
- Attend regional trauma network meetings to discuss ways to improve care for heart attack and stroke victims.
- Work with state EMS officials to update the state's heart attack and stroke protocols to match national guidelines.
- Create a train-the-trainer program for stroke emergency response.
- Sponsor a statewide conference that focused on a regional model for emergency care.
- Distribute 6,000 cards to EMS providers that provided clinical information and prompts about how to respond to heart attacks and strokes.

These activities helped state health officials collect evidence to support the need for a regional, funded trauma care system that will be the foundation for stroke and cardiac systems of care. CDC funding also helped MDCH staff members build a strong relationship with state EMS leaders and other partners.

In December 2010, the state enacted a law to fund a trauma care system in Michigan. This funding will provide the resources needed to implement a regional system that includes planning for heart attack and stroke emergencies. Every state resident, visitor, health care professional, and EMS provider who uses or works in the new trauma care system will benefit.