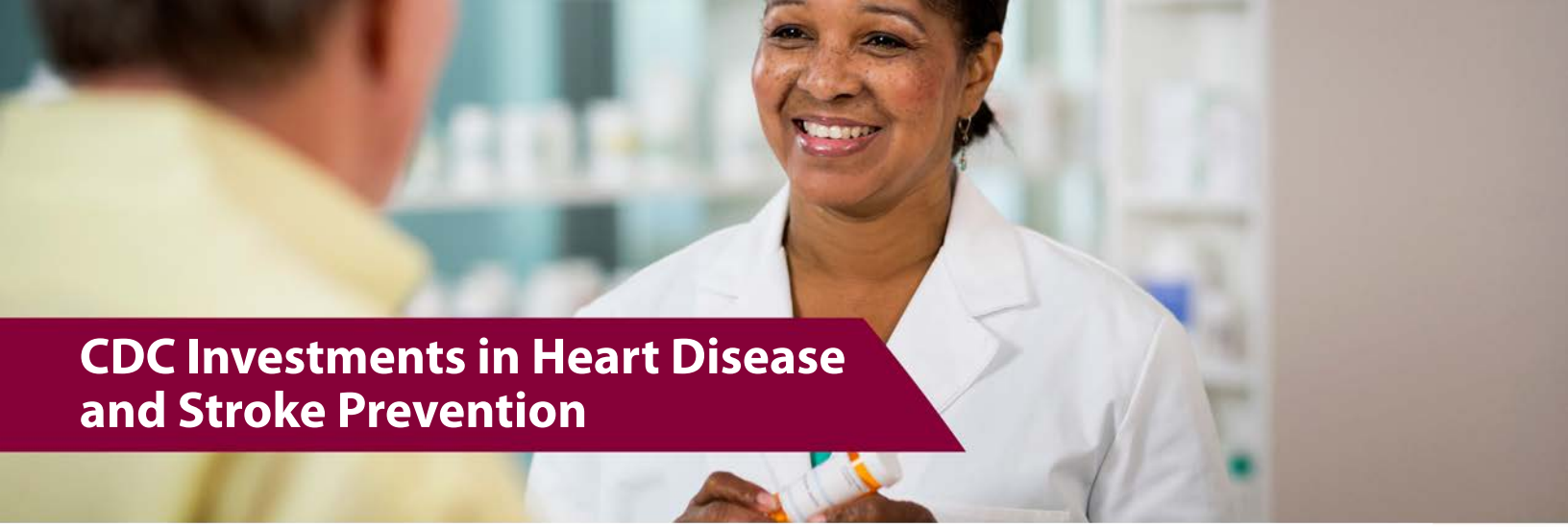

CDC Investments in Heart Disease and Stroke Prevention

Every 40 seconds, an adult in the U.S. dies of a heart attack, stroke, or related disease. Heart disease and stroke are the nation's first and fifth leading causes of death, respectively. Treatment of cardiovascular disease (CVD), including heart disease and stroke, accounts for about $1 of every $7 spent on health care in the United States.* The human and economic costs could be lower if our health care priority focused on preventing rather than treating CVD.

CDC's Division for Heart Disease and Stroke Prevention provides public health leadership, funding, and technical assistance for crucial efforts to prevent CVD and save lives. This work includes several programs that bring together state and local public health agencies, health systems and clinicians, and community organizations.

With more than $100 million dedicated to heart disease and stroke prevention in fiscal year (FY) 2018, CDC supports

- **All 50 states and the District of Columbia, as well as 35 tribal-serving organizations, 5 large cities, and 2 Consortia health departments,** to conduct CVD prevention activities.
- **Twenty-four WISEWOMAN programs** to provide at-risk women with CVD screenings, risk reduction counseling, and referrals to healthy behavior support services, such as lifestyle programs, health coaching, or other community-based resources.
- **Nine Paul Coverdell National Acute Stroke Program (PCNASP) states** to monitor and improve acute stroke care.
- **Million Hearts® 2022,** a CDC–Centers for Medicare & Medicaid Services (CMS) collaboration that unites federal, nonprofit, and private-sector partners around a shared goal of preventing 1 million heart attacks and strokes by 2022.
- **Eight Sodium Reduction in Communities Program (SRCP) sites** to increase consumer choices for lower sodium foods.

CDC-funded state, local, tribal, and territorial programs support a coordinated chronic disease approach to improve health by preventing and controlling CVD and its risk factors. CDC focuses this work in the following four areas:

- **Health care system interventions**—to improve the effective delivery and use of clinical and other high-value preventive services
- **Community programs linked to clinical services**—to improve and sustain management of CVD, including heart disease and stroke
- **Environmental approaches**—to promote health and support healthy behaviors
- **Epidemiology and surveillance**—to monitor CVD trends and track progress in improving outcomes

As the U.S. population ages, the health and economic impacts of CVD are likely to increase.

More than 859,000 Americans die of heart disease, stroke, and other cardiovascular diseases every year, resulting in **one-third** of all deaths in the United States.

Total U.S. CVD costs: **$351 billion per year,** including:

- **$214 billion** in direct medical expenses
- **$137 billion** in lost productivity

Health care dollars: **$1 in $7**

National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention

State, Local, Tribal, and Territorial Public Health Actions

All 50 states, the District of Columbia, 12 tribes, 11 tribal organizations, 12 tribal epidemiology centers, 3 territories, 5 large cities, and 2 Consortia health departments receive funding to prevent, manage, and reduce heart disease and stroke. The programming focuses on reducing risk factors for chronic diseases, including heart disease and stroke, as well as reducing health disparities through community and health system interventions.

For example, with CDC's support, Missouri is working with health care and community partners to improve blood pressure control in the populations they serve. While the state has a number of programs as part of this overall effort, one notable example is the Missouri Quality Improvement Network. This initiative focuses on the state's 28 federally qualified health centers (FQHCs), helping them adopt and use health information technology (HIT) systems to improve patient care and, in turn, reduce their patients' risk for heart attack and stroke.

HIT and use of electronic health records make it easier for health care providers to examine patient data to track treatment and progress, including what is and is not working for a patient; schedule and provide patient reminders for screenings and treatment; and look at every visiting patient's records to help determine whether they have undiagnosed high blood pressure and need a plan to address it. Studies show that these tools are effective at improving risk factor screening, prevention, and care for CVD. In Missouri, more than 530,000 people are served at 200 FQHC locations statewide. Participating health centers in rural parts of the state have made important progress in improving high blood pressure control rates among their patient populations, with two centers seeing control rates rise 12% and 18% in 3 years.

▶ **Total FY2018 funding: $71.4 million**

WISEWOMAN

Through WISEWOMAN (Well-Integrated Screening and Evaluation for WOMen Across the Nation), CDC funds 24 grantees in 21 state health departments and three tribal organizations. These programs provide low-income, uninsured, and underinsured women ages 40 to 64 with CVD screenings and referrals to lifestyle programs, health coaching, and other community-based resources designed to promote lasting, healthy lifestyle changes, such as modifications in diet and physical activity. These programs include a focus on enhancing blood pressure management and control through innovative approaches, such as collaborating with pharmacists. Between January 2014 and December 2016**, participants received more than 64,000 screenings and more than 95,000 healthy behavior support services. For example, Utah's program collects information on barriers (e.g., transportation, medication costs, lack of access to ongoing care) and uses program resources to overcome them. North Carolina's program is providing hypertensive participants in their pilot project with blood pressure monitors to use at home, at no cost. The program includes health coaching and follow-up visits with a provider.

▶ **Total FY2018 funding: 24 awards, $16.7 million**

Paul Coverdell National Acute Stroke Program (PCNASP)

CDC funds programs in nine states to monitor, promote, and improve the quality of stroke care and to close the gap between guidelines and practice, in an effort to reduce untimely deaths and disability. PCNASP-funded states work with emergency medical services (EMS) agencies to improve EMS care for suspected cases of stroke, the transition from EMS to hospital, hospital care, and the transition from hospital to the next care setting. For example, in Georgia, PCNASP helped hospitals reduce the time it took to deliver tissue plasminogen activator (tPA), a lifesaving, clot-busting stroke treatment that must be delivered quickly to be effective. The state reduced the average door-to-needle time for receiving tPA from 62 minutes in 2013 to 54 minutes in 2015. PCNASP disseminates lessons learned from its grantees.

▶ **Total FY2018 funding: 9 awards, $6.7 million**

Million Hearts® 2022

To achieve the ambitious goal of preventing 1 million heart attacks and strokes by 2022, CDC co-leads Million Hearts® with CMS. The initiative focuses partner actions on a small set of priorities selected for their impact on heart disease, stroke, and related conditions.

Million Hearts® funding is used to help partners build on and accelerate progress in implementing innovative approaches to CVD prevention and management. For example, Million Hearts® funded the YMCA (Y) of the USA Community Hypertension Models Project, which trained staff at local Ys to become Healthy Heart Ambassadors and educate patients with hypertension on how to use self-measured blood pressure monitors and record their readings. Patients can share their blood pressure readings with their health care providers to monitor and use in treatment decisions to improve blood pressure control. The pilot program included nearly 1,600 participants. Patients who participated for more than 2 months significantly reduced their blood pressure. Due to the pilot's success, the division increased investments to spread Healthy Heart Ambassador programs to more than 63 Y associations in 28 states.

▶ **Total FY2018 funding: $4 million**

Sodium Reduction in Communities Program

High sodium intake is associated with high blood pressure, a major risk for CVD. CDC supports eight grantees to increase the availability and accessibility of lower sodium foods and decrease sodium intake in varied settings—including public- and private-sector worksites, hospitals, schools, early child education centers, higher learning institutions, emergency food services, elder care services, homeless shelters, and detention facilities. For example, in Indiana, the Marion County Public Health Department partnered with Eskenazi Health to achieve a 41% reduction in the sodium content of foods served in the hospital's cafeteria from April 2014 to March 2016. The achievement is attributable to several "stealth" sodium reduction strategies, meaning the changes were not advertised. The strategies include implementation of the Choose Health nutrition guidelines, which require less than 800milligrams of sodium per meal; portion reductions of higher sodium items (like cheeses) in deli sandwich recipes; procurement of lower sodium products to yield lower sodium meals; and substitution of flavorful alternatives for higher sodium items and ingredients. Eskenazi Health reports that the sales for items affected by stealth strategies remained strong, with a 7% increase in total sales over the intervention period.

▶ **Total FY2018 funding: 8 awards, $2.9 million**

* Agency for Healthcare Research and Quality. Total expenses and percent distribution for selected conditions by type of service: United States, 2013. Medical Expenditure Panel Survey Household Component data. Available from https://meps.ahrq.gov. Accessed December 28, 2017.

**July-December 2016 data are based on preliminary numbers.