## **POWER OF PREVENTION**

The Health and Economic Benefits of Preventing Chronic Diseases



### HIGH BLOOD PRESSURE

High blood pressure is a common and dangerous condition and a key risk factor for heart disease and stroke. It is defined as having a blood pressure of 130/80 mm Hg or higher. Healthy lifestyle behaviors like eating a diet high in fruits and vegetables and low in sodium and being physically active—can help prevent and control high blood pressure.

#### **High Blood Pressure in the United States**

- Nearly 1 in 2 US adults (116 million) has high blood pressure, and most of them (92 million) may need to both change their lifestyle and take prescription medicine.1
- About 3 in 4 US adults with high blood pressure (92 million) don't have it under control (defined as blood pressure less than 130/80 mm Hg).1
- High blood pressure rates vary by race and ethnicity. Over half (56%) of non-Hispanic Black adults, 48% of non-Hispanic White adults, 46% of non-Hispanic Asian adults, and 39% of Hispanic adults in the United States have high blood pressure. Only 18% of non-Hispanic Black adults, 22% of non-Hispanic White adults, 14% of non-Hispanic Asian adults, and 14% of Hispanic adults with high blood pressure have it under control.1
- Over 500,000 US deaths each year are linked to high blood pressure as a primary or contributing cause.<sup>2</sup>

#### **Strategies That Work**

CDC supports state, local, tribal, and territorial heart disease and stroke prevention programs that help millions

#### The Benefits of Using **Proven Strategies**

Many effective strategies to manage high blood pressure are a good value in terms of cost per quality-adjusted life year (QALY) gained.\* For example:

- Team-based care to improve blood pressure control has a median cost of  $9,716 \text{ to } 13,992^{\ddagger(a)} \text{ per QALY gained.}^3$
- The use of community health workers, especially as part of a team, has a median estimated cost of \$17,670<sup>‡(b)</sup> per QALY gained.<sup>5</sup>
- When used with other approaches, selfmeasured blood pressure monitoring has a median cost of \$2,800 to \$10,800<sup>‡(c)</sup> per QALY gained.6



- \* Public health interventions that cost less than \$50,000 per QALY are widely considered cost-effective.
- ‡ Costs were measured in <sup>a</sup>2010 US dollars, <sup>b</sup>2015 US dollars, and <sup>c</sup>2014 US dollars. Older cost estimates are likely to be underestimates.



Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion



of Americans control their high blood pressure and reduce other risk factors for heart disease and stroke. The agency promotes strategies and policies that encourage healthy lifestyles and behaviors, healthy environments and communities, and access to early and affordable detection and treatment of high blood pressure. These strategies help save lives and reduce health care costs. They include:

- Expanding the use of team-based care, which means health care providers work with pharmacists, community health workers, and other health professionals to manage patients' high blood pressure.<sup>3,7</sup>
- Increasing the use of community health workers to connect people with the services and lifestyle programs they need to reduce their blood pressure.<sup>5</sup>
- Increasing the use of self-measured blood pressure monitoring, where people with high blood pressure check their own blood pressure regularly and share this information with their health care providers.<sup>6,8</sup>

Improvements in high blood pressure control or further reductions in the number of people with high blood pressure could generate billions in health care cost savings every year. For example:



Using team-based care that includes a pharmacist could prevent up to 91,900 heart attacks, 139,000 strokes, and 115,400 cardiovascular deaths over 5 years among US adults with uncontrolled high blood pressure. Medicare could save up to \$900 million over 5 years with this intervention.<sup>7</sup>



Reducing average population sodium intake to 2,300 mg a day (the recommended maximum for adults) may reduce cases of high blood pressure by 11 million annually, saving \$18 billion in health care costs.<sup>9</sup>

For more information about strategies to prevent heart disease and stroke, see <u>Best Practices for Cardiovascular Disease Prevention Programs</u> and <u>Hypertension Control Change Package for Clinicians</u>.



## \$79 BILLION<sup>‡(d)</sup>

total annual medical costs associated with high blood pressure<sup>4</sup>

# The High Cost of High Blood Pressure

Because high blood pressure affects so many Americans and is a key risk factor for heart disease and stroke, it is one of our nation's costliest health conditions.

- Annual medical costs for people with high blood pressure are up to \$2,500<sup>‡(d)</sup> higher than costs for people without high blood pressure.<sup>10,11</sup>
- About 650 million prescriptions for blood pressure medicine are filled each year.
  This accounts for about \$29 billion<sup>‡(c)</sup> in total spending, of which \$3.4 billion is paid directly by patients.<sup>12</sup>

‡ Costs were measured in °2014 US dollars, d2014 and 2016 US dollars, and °2008 US dollars. Older cost estimates are likely to be underestimates.