



## Summary of Community Preventive Services Task Force Recommendation

The Community Preventive Services Task Force (CPSTF) recommends self-measured blood pressure (SMBP) monitoring interventions when used alone and when combined with additional support to improve blood pressure outcomes in patients with high blood pressure.

### Major Findings

SMBP monitoring interventions led to improved blood pressure outcomes. Blood pressure decreased by a median of

- 3.2 mmHg (systolic) and 1.3 mmHg (diastolic), when interventions were used alone, and
- 4.6 mmHg (systolic) and 2.3 mmHg (diastolic), when interventions were combined with additional support.

A review of economic evidence showed SMBP interventions are cost-effective when used with additional patient support or within team-based care, with all median estimates of cost per quality-adjusted life year (QALY) gained falling below a \$50,000 benchmark for cost effectiveness.

The evidence was mixed for cost-effectiveness of SMBP monitoring interventions when used alone, though the median averted healthcare cost of \$148 per person per year was greater than the median intervention cost of \$60 per person.

### What is Self-Measured Blood Pressure Monitoring (SMBP)?

SMBP monitoring interventions support and promote the use of personal blood pressure measurement devices in the management and treatment of high blood pressure. Program staff train patients to use validated, and usually automated, blood pressure measurement devices on a regular basis in familiar settings, usually their homes.

Patients share blood pressure readings with their healthcare providers during clinic visits, by telephone, or electronically. These measurements are monitored and used in treatment decisions to improve blood pressure control.

SMBP monitoring interventions may be combined with team-based care or additional support that includes the following:

- One-on-one patient counseling on medications and health behavior changes (e.g., diet and exercise)
- Educational sessions on high blood pressure and blood pressure self-management
- Access to web-based tools (i.e., electronic refill requests, text or email reminders, or secure provider messaging)

### Facts about Cardiovascular Disease and Hypertension

- About 75 million U.S. adults have high blood pressure and only about half have their condition under control.<sup>1</sup>
- High blood pressure increases risk for heart attack, stroke, chronic heart failure, and kidney disease.<sup>2</sup>
- Cardiovascular disease costs the United States approximately \$316 billion each year in health care services, medications, and lost productivity from premature mortality.<sup>3</sup>



### Learn More

#### Summary of Evidence and CPSTF Finding and Full-text Publications

**SMBP(Alone):** <http://www.thecommunityguide.org/findings/SMBP-alone>  
**SMBP(Support):** <http://www.thecommunityguide.org/findings/SMBP-support>

#### Million Hearts SMBP Monitoring Action Steps

**For Public Health Practitioners:** [https://millionhearts.hhs.gov/files/MH\\_SMBP.pdf](https://millionhearts.hhs.gov/files/MH_SMBP.pdf)  
**For Clinicians:** [https://millionhearts.hhs.gov/files/MH\\_SMBP\\_Clinicians.pdf](https://millionhearts.hhs.gov/files/MH_SMBP_Clinicians.pdf)

<sup>1</sup> Merai R, Siegel C, Rakotz M, Basch P, Wright J, Wong B; DHSC, Thorpe P. CDC Grand Rounds: A Public Health Approach to Detect and Control Hypertension. *MMWR Morb Mortal Wkly Rep.* 2016 Nov 18;65(45):1261-1264.

<sup>2</sup> Mozaffarian D, Benjamin EJ, Go AS, et al. Heart Disease and Stroke Statistics-2015 Update: a report from the American Heart Association. *Circulation.* 2015;e29-322.

<sup>3</sup> Benjamin EJ, Blaha MJ, Chiuve SE, et al. on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2017 update: a report from the American Heart Association. *Circulation.* 2017 Mar 7;135(10):e146-e603. doi: 10.1161/CIR.0000000000000485. Epub 2017 Jan 25.