Million Hearts™

Self-Measured **Blood Pressure** Monitoring

ACTION STEPS

for Public Health Practitioners

A MILLION HEARTS™ ACTION GUIDE

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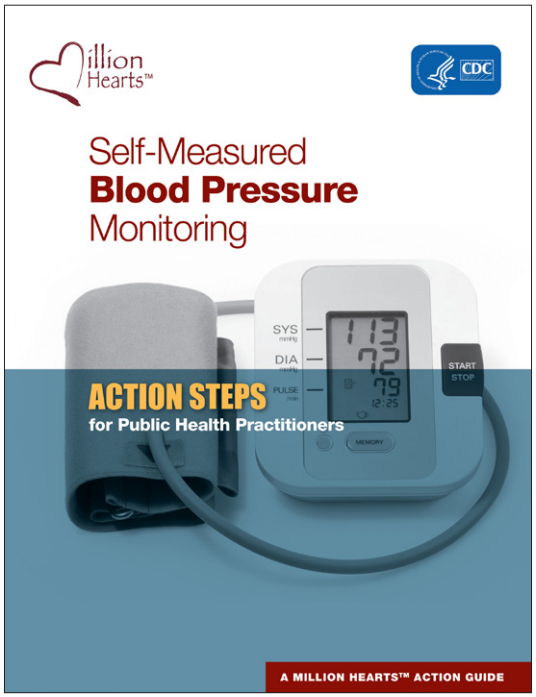
Contents

Executive Summary

Million Hearts™ is a U.S. Department of Health and Human Services initiative that is co-led by the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, with the goal of preventing one million heart attacks and strokes by 2017. To help achieve this goal, Million Hearts™ aims to increase by 10 million the number of persons in the United States whose blood pressure is under control.[1] Self-measured blood pressure monitoring (SMBP) plus additional support is one strategy that can be implemented in communities to reduce the risk of disability or death due to high blood pressure. SMBP is defined as the regular measurement of blood pressure by the patient outside the clinical setting, either at home or elsewhere. It is sometimes known as "home blood pressure monitoring." Additional support includes regular one-on-one counseling, Web-based or telephonic support tools, and educational classes and is further defined on page 4.

This document provides action steps and resources for public health practitioners on self-measured blood pressure monitoring and is not meant to represent clinical recommendations or guidelines. It includes:

- A description of the burden of hypertension.
- A summary of the scientific evidence establishing the significance and effectiveness of SMBP plus additional support.
- A definition and explanation of additional support strategies for SMBP.
- Types and costs of home blood pressure monitors used for SMBP.
- Available cost data for SMBP plus additional support interventions.
- Health insurance coverage for SMBP.



- Action steps for public health practitioners on the implementation of SMBP plus additional support.

This document provides action steps for public health practitioners to facilitate the implementation of SMBP plus additional support in five key areas: understanding the environment, working with payers and purchasers, working with health care providers, spreading the word to the public, and monitoring/assessment of SMBP plus additional support implementation. For each area, relevant actions are given that can facilitate the implementation of SMBP plus additional support. A subsequent list of related electronic resources is also provided to assist with these actions, along with appendices that describe state-specific Medicaid coverage for blood pressure monitors and additional support as well as the top five insurance plans by market share in each state.

Burden of Hypertension

High blood pressure, or hypertension (HTN), is a major risk factor for heart disease, stroke, and kidney disease. It affects nearly one-third of American adults aged 18 or older (67 million people).[2] HTN is generally defined as systolic blood pressure (SBP) of 140 mm Hg or higher or diastolic blood pressure (DBP) of 90 mm Hg or higher.[2] HTN is more common among adults aged 65 years or older; Medicare beneficiaries, including people under 65 with end-stage renal disease[3]; and non-Hispanic blacks.[4] HTN is uncontrolled in more than half of adults with the condition, or 36 million people.[2] Only 61% of adults with uncontrolled HTN are aware they have HTN, and just under half (45%) of the uncontrolled both know they have HTN and are being treated with medications to lower their blood pressure (Figure 1).[2] Uncontrolled HTN is associated with increased cardiovascular morbidity and mortality and increased use of health care resources,[5] with direct health care costs related to HTN amounting to approximately $131 billion each year.[6] Moreover, treatment for cardiovascular disease is estimated to account for 12% of annual spending by both private insurers and Medicaid, and nearly 30% of annual Medicare spending.[7] Even small increases in blood pressure increase the risk for cardiovascular disease and mortality: the risk of death from ischemic heart disease and stroke doubles for every 20 mm Hg increase in SBP, or 10 mm Hg increase in DBP.[2,5]

Effective management and control of HTN can reduce the risks of heart attack, stroke, and heart failure.[5] Although lifestyle changes such as eating a healthy, low-sodium diet, getting more exercise, and quitting smoking may result in small decreases in blood pressure, people with HTN generally also require one or more medications to lower their blood pressure.[5] Clinical trials have shown that blood pressure medications have the potential to reduce the incidence of stroke by 35%–40%, heart attacks by 20%–25%, and heart failure by 50%.[5] However, HTN usually requires lifetime management, and maintaining long-term medication adherence and lifestyle modification can be challenging for patients.[8]

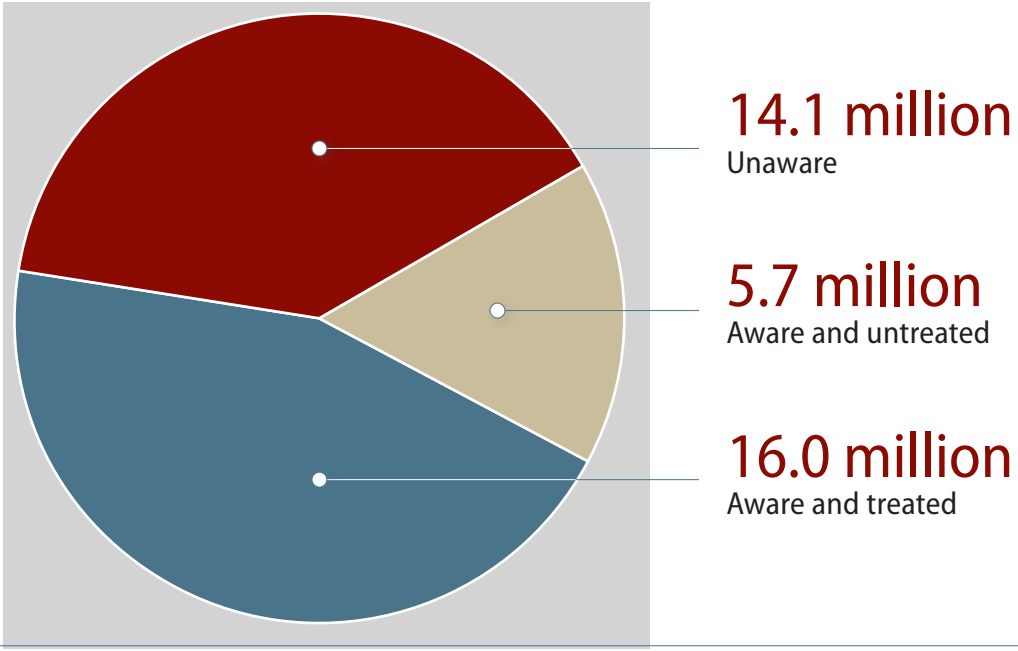


Figure 1.
Awareness and treatment among adults aged 18 or older with uncontrolled hypertension, National Health and Nutrition Examination Survey (NHANES) 2003–2010[2]

Self-Measured Blood Pressure Monitoring

Clinicians, public health practitioners, health care systems, and individuals can focus on strategies to improve blood pressure control and medication adherence in order to improve health outcomes for patients with HTN.[2,8] One strategy that is being promoted by numerous national and international health organizations is SMBP.[8,9] SMBP technically refers to the regular measurement of a patient's own blood pressure. Though there are multiple settings where blood pressure can be measured, such as a health care setting, senior center, pharmacy, church, or fire station, SMBP more broadly refers to the regular use of a personal blood pressure measurement device that is used by the patient outside a clinical setting.[8] While these devices may be used in settings such as a workplace or church, they are typically used at home and often referred to as home blood pressure monitors.[8] SMBP differs from ambulatory blood pressure monitoring, which is also done outside the clinical setting. Ambulatory blood pressure monitoring is performed continuously over a 24-hour period with an ambulatory blood pressure monitor, while SMBP uses a home blood pressure monitor to measure blood pressure at different points in time.[9] Although more research is needed to determine the optimal timing and frequency of measurements, experts, including the American Heart Association (AHA), European Hypertension Society (EHS), and British Hypertension Society (BHS), recommend that patients using SMBP take two or three successive readings (at one-minute intervals) at least twice a day, once in the morning and once in the evening. The number of measurements per week should be determined together with the patient's health care provider.[9–12]

The Agency for Healthcare Research and Quality (AHRQ) recently reviewed the effectiveness of SMBP.[8] The review examined 49 studies, including 24 that compared SMBP plus additional support to usual care. Patients receiving usual care had their blood pressure measured only at routine appointments with their primary care providers and did not receive extra guidance on measurement or control of blood pressure from study personnel. Patients using SMBP measured blood pressure at home only; readings were either taken themselves or by a caretaker. AHRQ found strong evidence that SMBP plus additional support (defined below) was more effective than usual care in lowering blood pressure among patients with HTN.[8] In the studies examined by AHRQ that reported statistically significant reductions in blood pressure favoring SMBP plus additional support, the mean net decrease in SBP ranged from 1.6 to 8.5 mm Hg and the mean net decrease in DBP ranged from 1.9 to 4.4 mm Hg.[4,13–24]

> AHRQ found strong evidence that SMBP plus additional support was more effective than usual care in lowering blood pressure among patients with hypertension.

For the purposes of the review, AHRQ did not include blood pressure measurement by the patient in an office, clinic, pharmacy, or workplace health unit because those measurements do not address white coat HTN issues (this refers to artificially high readings when blood pressure is measured in a physician's office) or provide opportune conditions for the measurement frequency recommended for home self-measurement.[8]

Additional Support Strategies for SMBP

The type of additional support in the studies examined by AHRQ varied widely and fell into three main categories: regular one-on-one counseling,[4,13,14,16,20,22] Web-based or telephonic support tools that did not involve one-on-one interaction,[15–17,19,21,23] and educational classes.[14,18,24]

- **One-on-one counseling:** examples included regular telephone calls from nurses to manage blood pressure-lowering medication[20] and in-person counseling sessions with trained community pharmacists.[22]
- **Web-based or telephonic support:** examples included an interactive computer-based telephone feedback system[15] and secure patient website training plus pharmacist care management delivered through Web communications,[16] both in response to patient-reported blood pressure readings.
- **Educational classes:** examples included telephone-based education by nurses on blood pressure-lowering behaviors delivered only when patients reported poor blood pressure readings[14] and small-group classes on SMBP technique and lifestyle changes that help lower blood pressure, taught by physician assistants.[18]

Determining whether one form of support is more effective than another is not possible from the AHRQ review because the details of additional support interventions differed widely from study to study.[8] However, with one exception, all forms of additional support in the trials that successfully lowered patients' blood pressure were administered by health care providers (e.g., pharmacists, nurse practitioners, physician assistants) specifically trained to deliver the intervention, and the content was adjusted based on blood pressure readings reported by patients using SMBP. Upon additional analysis of the effective SMBP plus additional support interventions in the AHRQ review, multiple common elements were noted across all of the interventions (See Common Elements of Successful SMBP Support).[4,13–24]

If maintained over time, interventions using SMBP plus additional support could contribute to improved blood pressure control for many patients with HTN. Because the delivery and components of successful SMBP plus additional support interventions examined in the AHRQ review varied widely, it is possible that this flexibility would allow interventions to be implemented across numerous health care settings and patient populations. However,

Common Elements of Successful SMBP Support

Many different kinds of SMBP plus additional support interventions have successfully lowered blood pressure in patients with HTN. Common elements of successful SMBP plus additional support interventions are[4,13–24]:

- Delivery of intervention by trained health care providers (e.g., pharmacists, nurse practitioners, physician assistants, health educators).
- Regular patient communication of SMBP readings to providers.
- A patient/provider "feedback loop" in which provider support and advice are customized based on patients' reported information (see Figure 2).

more formal evaluation of these approaches is needed. Some studies suggest that when SMBP monitoring is done at home, it could help reduce HTN-related disparities among vulnerable populations because health care providers can collect information about patients' blood pressure, medications, and health behaviors without requiring them to pay for and travel to a doctor's office for every blood pressure reading.[4,14–21]

A Joint Scientific Statement from the AHA, American Society of Hypertension (ASH), and Preventive Cardiovascular Nurses Association (PCNA) states that SMBP may be particularly useful in certain types of patients, including the elderly, people with diabetes or chronic kidney disease, pregnant women, and patients with suspected or confirmed white coat HTN.[9] However, patients with atrial fibrillation or other types of irregular heartbeat (generally known as arrhythmias) may have difficulty taking accurate readings using automated home blood pressure monitors.[9]

All forms of additional support in the trials were administered by health care providers specifically trained to deliver the intervention, and the content was adjusted based on blood pressure readings reported by patients using SMBP.

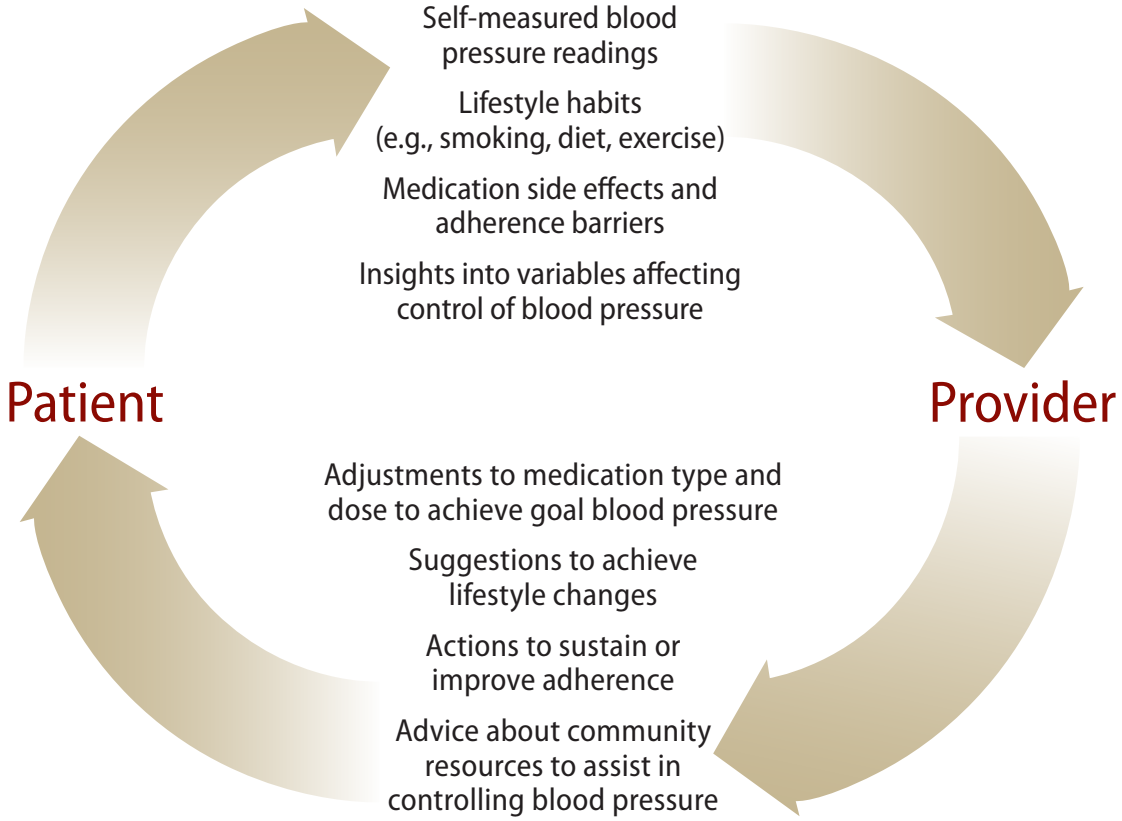


Figure 2.
Feedback loop between patients and health care providers supporting SMBP

Home Blood Pressure Monitors Used for SMBP

Available home blood pressure monitors range from manual devices that require patients to measure blood pressure with a stethoscope and sphygmomanometer (auscultatory) to devices that are partially or fully automated (oscillometric). No studies directly compare different SMBP devices, but automated devices are likely to be easier to use,[9] and most recent studies used automated devices.[8] Although monitors that fit on the upper arm, wrist, and finger are available, upper arm monitors are recommended by AHA, ASH, and PCNA for accuracy of measurement.[8,9] Patients should only use monitors that have been properly validated and tested for accuracy, passing at least one accepted standardized international testing protocol. The three widely accepted validation protocols are from the Association for the Advancement of Medical Instrumentation (AAMI), the BHS, and the EHS. Not all available home blood pressure monitors have passed these validation tests (see Resources section for links to current lists). For a validated upper arm home blood pressure monitor, patients should expect to pay in the range of $50 to $100.[9,25] For a summary of preferred home blood pressure monitor features outlined in the Joint Scientific Statement from AHA, ASH, and PCNA, see Table 1.

Cost of SMBP Plus Additional Support

In addition to the cost of home blood pressure monitors, the costs of supporting interventions should be considered. Although several studies have examined SMBP with additional support, few data are available on the cost of the added interventions. Among the studies of effective SMBP plus additional support interventions included in the AHRQ review, fewer than half included information on intervention costs. In studies that examined cost, the amount per patient ranged from slightly more than $100 to nearly $1,000 per year in 2011 dollars (after adjustment for inflation).[13–15,22] The cost of providing additional support to patients using SMBP depends on the type of support offered (see Table 2). For example, interventions that include counseling by health care providers are likely to cost more than automated computer

New Technology in Blood Pressure Monitoring

Increasing use of technology has resulted in many mobile blood pressure monitoring devices that can be used with smartphones, tablets, etc. One example of these devices is a mobile arm cuff that plugs directly into a smartphone and, with a downloadable application, can measure and record blood pressure onto the phone. Multiple companies are beginning to market such devices, some of which are FDA approved or validated with the EHS test protocol. Cuffless blood pressure monitoring using heartbeat and pulse data captured with smartphone microphones is another new technology being developed.[26] Most of these strategies have not yet been properly validated by international standards. Another type of device that is widely available is the blood pressure kiosk, often found in pharmacies, worksites, and retail stores. Current kiosks may be inaccurate and unreliable.[27] However, the use of more accurate and reliable "smart" blood pressure kiosks is increasing in certain locations. These machines allow patients to save their blood pressure readings and track them over time or share them with their health care providers. Such devices could play a large role in SMBP in the future, but current research in this area is limited.

Table 1. How to choose a home blood pressure monitor[9]

Preferred	Not Preferred
Automated	Manual
Upper arm cuff	Wrist or finger cuff
Validated by AAMI, BHS, or EHS	Not validated
Memory storage capacity	No memory storage
Accuracy checked by physician or nurse after purchase	Patient uses monitor without consulting physician

Table 2. Cost data from studies of SMBP plus additional support

Study	Support Intervention	Cost Results*	Annual Cost per Patient*
Friedman 1996[15]	Computerized telephone feedback system	$67 per patient for six months	$134
Bosworth 2009[13]	Behavior counseling by nurses on telephone calls every two months	$496 per patient for two years	$248
Zillich 2005[22]	Face-to-face behavior counseling by pharmacists	$168 per patient for three months	$673†
Bosworth 2011[14]	Behavior counseling by nurses via telephone if triggered by blood pressure readings	$1,040 per patient for 18 months	$693
Bosworth 2011[14]	Combination of behavior counseling and medication management	$1,268 per patient for 18 months	$845
Bosworth 2011[14]	Medication changes by physician after nurse alert if triggered by blood pressure readings	$1,401 per patient for 18 months	$934

* Adjusted to 2011 dollars using the medical care component of the Consumer Price Index. Cost data from studies used to generate an annual cost per patient for ease of comparison. All costs include the cost of a blood pressure monitor, except Zillich 2005.

† Based on additional pharmacist compensation of $75/hour and an average time of 100 minutes of counseling per patient. Does not include the cost of a home blood pressure monitor.

support because the cost of the providers' time must be taken into account. The type of provider offering the counseling (e.g., nurse practitioner, pharmacist, physician assistant) and the frequency of counseling (weekly, monthly, bimonthly, or as needed) will also affect the cost of additional support for patients using SMBP. Another factor that influences the cost is whether the intervention results in increased office visits or use of more blood pressure medication (either additional medications, higher doses, or both). Conclusions about how SMBP plus additional support affects health care usage cannot currently be drawn because results from the different studies are not consistent. Additionally, to date, no studies have specifically examined the cost-effectiveness of SMBP plus additional support.

Health Insurance Coverage for SMBP

Although people without health insurance are less likely to have their blood pressure under control, 85% of American adults with uncontrolled HTN have health insurance.[2] As of 2008, most health plans did not cover at-home SMBP.[28] Insurance benefits for SMBP vary by payer: for example, some payers may cover monitors but not additional support services provided by non-physicians. Experts from AHA, ASH, and PCNA have recommended that payers cover both the purchase of validated home blood pressure monitors and the time that health care providers spend to train patients in SMBP techniques, validate patients' measurement techniques, and interpret and provide counseling based on SMBP readings.[9]

Medicare Part B, that is, traditional fee-for-service Medicare, covers ambulatory blood pressure monitoring and physician interpretation of results for the diagnosis of white coat HTN.[9] Medicare Part B currently does not cover the home blood pressure monitors used for SMBP. **Medicare Part C,** Medicare Advantage plans, are not required to cover home blood pressure monitors or additional support programs, but may choose to offer these benefits as supplemental coverage for enrollees. In April 2012, the Centers for Medicare and Medicaid Services provided specific guidance to Medicare Advantage organizations on how telemonitoring and other "telehealth" benefits should be constructed, if offered.[29] **Medicaid** coverage for home blood pressure monitors and additional support varies by state. Information available on SMBP-related benefits in each state Medicaid program is included in Appendix A.

Experts have recommended that payers cover both the purchase of validated home blood pressure monitors and the time that health care providers spend to train patients in SMBP techniques, validate patients' measurement techniques, and interpret and provide counseling based on SMBP readings.

For **private insurance carriers and self-insured employers,** the decision to cover home blood pressure monitors and additional support is made by each individual plan. Some private insurance plans provide these types of benefits only for beneficiaries who are enrolled in disease-management programs for HTN or other medical conditions that increase the risk of heart disease and stroke. For example, BlueCross BlueShield of Tennessee pays for home blood pressure monitors for patients in its low-risk HTN case-management program if their case managers recommend use of the monitor.[28] For patients whose insurance does not cover the purchase

of home blood pressure monitors, the cost of a monitor can be reimbursed from a health care flexible spending account (FSA).[30]

Action Steps for Public Health Practitioners

Public health practitioners can play an integral role in garnering support and changing systems to assist in the widespread implementation of SMBP plus support programs. Such practitioners can bring partners to the table, share relevant data and information, and make recommendations for changing health care payer and provider systems. To promote SMBP in their communities, public health practitioners may choose to:

1. Explore the Environment

- ▷ Conduct an environmental scan to find existing efforts in your state, county, or municipality that encourage the use of SMBP plus additional support.
- ▷ Determine who the primary stakeholders and potential champions are in your state (e.g., payers, purchasers, health care providers).
- ▷ Understand how state and local laws and regulations relating to scope of practice and licensing of telemedicine providers affect payment for SMBP support programs.

2. Work with Payers and Purchasers

- ▷ Work with state associations of private insurance, groups of self-insured employers, the state Medicaid office, and the state insurance commissioner to encourage coverage of SMBP and additional support.
  - Identify which insurance plans cover the majority of state or county residents and contact benefits managers for these plans to promote coverage for SMBP with additional support (see Appendix B).
  - Identify groups of large self-insured businesses (purchasers) and provide resources that promote coverage for SMBP with additional support.
  - Encourage coverage for validated SMBP monitors.
- ▷ Share evidence and resources to promote SMBP to payers and purchasers (see Resources section for relevant materials).
- ▷ Identify and share best practices among payers and purchasers in the state for payer- or purchaser-initiated SMBP plus support programs.

3. Work with Health Care Providers

- ▷ Collaborate with state and local chapters of provider organizations, state primary care and other relevant associations, and quality improvement organizations to promote the role of SMBP in clinical management of HTN. State and local public health programs can provide such technical assistance to their partners by:
  - Assisting health care provider groups with identifying SMBP champions in individual medical practices, patient-centered medical home collaboratives, or other quality improvement programs.
  - Encouraging provider groups to offer "train-the-trainer" opportunities to educate team members on how patients should be taught to self-monitor their blood pressure.
  - Providing technical assistance to provider groups on implementing clinical support programs for SMBP (see pages 4–5 of this guide for SMBP support strategies).
- ▷ Share evidence and resources to promote SMBP with health care providers and provider groups (see Resources section for relevant materials).

- ▷ Identify and share best practices for SMBP plus additional support among providers in the state or county.
  - Collaborate with academic detailers to incorporate SMBP plus additional support into training programs.
- ▷ Encourage innovation among health care providers willing to test various models of support for SMBP.
- ▷ Convey lessons learned from work with payers to the providers and, where possible, connect and help convene the payers and providers in a given geography.

4. Help Spread the Word to the Public

- ▷ Encourage health advocacy organizations, community- and faith-based organizations, and patient advocacy groups to share resources to educate the public about the importance of SMBP plus additional support in controlling high blood pressure and to incorporate these messages into broader efforts related to HTN (see Resources section for relevant materials).
- ▷ Include SMBP messaging in communications targeting the public (e.g., media releases, Web pages, Facebook, Twitter chats).

5. Monitor and Assess Progress

- ▷ Evaluate efforts to expand use of SMBP plus additional support.
  - Work with providers and payers implementing SMBP plus additional support to evaluate cost-effectiveness and blood pressure rates and related outcomes.
- ▷ Work with payers and purchasers to examine coverage utilization of SMBP plus additional support.
- ▷ If focusing in a geographic area, consider working with pharmacies that serve the area to assess purchasing trends for blood pressure monitors.
- ▷ Work with providers implementing SMBP plus additional support to monitor changes in blood pressure control rates:
  - The percentage of patients 18–85 years of age who had a diagnosis of HTN and whose blood pressure was adequately controlled (<140/90) during the measurement year.
- ▷ Consider adding questions on SMBP plus additional support to state or local data collection systems or surveys like the Behavioral Risk Factor Surveillance System (BRFSS). For example:
  - (Among self-reported hypertensives) Do you measure your blood pressure at home?
  - If yes, how often do you measure your blood pressure at home? (daily, weekly, monthly, other)
  - (If yes) What type of blood pressure monitor do you use? (manual—with stethoscope and sphygmomanometer, automated—with self-inflating cuff and digital read-out, or hybrid—with manually inflated cuff and digital readout, other)
  - Do you regularly transmit, via e-mail, Internet, phone, or fax, blood pressure readings to a health care provider for feedback?

Resources

List of Validated Home Blood Pressure Monitors

Dabl Educational Website: *www.dableducational.org/sphygmomanometers/devices_2_sbpm.html*

British Hypertension Society: *www.bhsoc.org//index.php?cID=246*

Resources for Working with Payers

Appendix A: Medicaid Benefits for Self-Measured Blood Pressure Monitoring plus Additional Support, by State

Appendix B: Top Five Insurance Plans in Each State For Managed Care Enrollment, by Market Share, Atlantic Information Services, Inc. Directory of Health Plans, 2011

List of State/Local Chambers of Commerce: *www.uschamber.com/chambers/directory*

List of State/Regional Business Coalitions on Health: *www.nbch.org/index.asp?bid=67*

Medicaid Health Plan Association: *www.mhpa.org/Home*

Resources for Working with Health Care Providers

AHRQ. Clinician Research Summary: Effectiveness of Self-Measured Blood Pressure Monitoring in Adults with Hypertension: *www.effectivehealthcare.ahrq.gov/ehc/products/193/895/smbp_clin_fin_to_post.pdf*

American Heart Association. Heart 360. An Online Tool for Patients to Track and Manage Their Heart Health and Share Information with Healthcare Providers: *www.heart360.org*

American Heart Association. Home Blood Pressure Monitoring Instructional Video: *www.heart.org/HEARTORG/Conditions/HighBloodPressure/SymptomsDiagnosisMonitoringofHighBloodPressure/Instructional-Video---Monitoring-Blood-Pressure-at-Home_UCM_303324_Article.jsp*

American Heart Association. Information on Home Blood Pressure Monitoring and Online and Printable Blood Pressure Tracking Logs: *www.heart.org/HEARTORG/Conditions/HighBloodPressure/SymptomsDiagnosisMonitoringofHighBloodPressure/Home-Blood-Pressure-Monitoring_UCM_301874_Article.jsp*

American Heart Association. Printable Log to Record Home Blood Pressure Measurements: *www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_305157.pdf*

Clinical Advisor. Feature for Providers on How to Implement Home-Measured Blood Pressure Monitoring: *www.clinicaladvisor.com/how-to-implement-home-bp-monitoring/article/206808*

Drug Store News. Pharmacy Practice: Helping Patients Navigate At-Home Blood Pressure Monitoring: A Discussion Guide for Physicians and Patients on Home Blood Pressure Monitoring: *www.cedrugstorenews.com/userapp/lessons/page_view_ui.cfm?lessonuid=401-000-10-010-H01&pageid=A003EC403140DAFB90239918663893C0*

Michigan Department of Community Health. Presentation: "Measuring Blood Pressure at Home: A Guide for Healthcare Professionals": *www.mpro.org/document_center/Measuring_Blood_Pressure_at_Home_July_18_2012.pptx*

Million Hearts Initiative. Team Up. Pressure Down. Resources for Pharmacists: Pharmacist CEUs and Hypertension Awareness-Raising, Discussion, and Management Tools for Patients: *http://millionhearts.hhs.gov/resources/teamuppressuredown.html#Pharmacists*

New York City Department of Health and Mental Hygiene. Patient-Self Monitoring of Blood Pressure: A Provider's Guide: *www.nyc.gov/html/doh/downloads/pdf/csi/hyperkit-hcp-bpselfmon-guide.pdf*

Washington State Department of Health. How to Check Your Blood Pressure (English): *http://here.doh.wa.gov/materials/how-to-check-your-blood-pressure/13_BloodPressHm_E11L.pdf*

Washington State Department of Health. How to Check Your Blood Pressure (Spanish): *http://here.doh.wa.gov/materials/how-to-check-your-blood-pressure/13_BloodPressHm_S11L.pdf*

Washington State Department of Health. Improving the Screening, Prevention, and Management of Hypertension—An Implementation Tool for Clinic Practice Teams: *http://here.doh.wa.gov/materials/bp-management-implementation-tool*

List of Chapters for Health Care Provider Groups

American Academy of Family Physicians: *https://nf.aafp.org/eweb//DynamicPage.aspx?webcode=ChpList&Site=aafpv*

American College of Cardiology: *www.cardiosource.org/ACC/ACC-Chapters/ACC-State-Chapters.aspx*

American College of Physicians: *www.acponline.org/about_acp/chapters/index.html*

American Medical Association: *www.ama-assn.org/ama/pub/about-ama/our-people/the-federation-medicine/state-medical-society-websites.page*

American Nurses Association: *www.nursingworld.org/SNAS.aspx*

Association of Black Cardiologists: *www.abcardio.org* (contact for local resources)

National Alliance of State Pharmacy Associations: *www.naspa.us/statepharmacy.html*

National Black Nurses Association: *www.nbna.org/index.php?option=com_qcontacts&view=category&catid=62&Itemid=92*

National Hispanic Medical Association: *www.nhmamd.org/index.php/membership/council-of-medical-societies*

National Hispanic Nurses Association: *http://nahnnet.org/NAHNChapters.html*

National Medical Association: *www.nmanet.org/index.php?option=com_content&view=article&id=258&Itemid=350*

Preventive Cardiovascular Nurses Association: *http://pcna.net/member-center/chapters*

Quality Improvement Organizations: *www.ahqa.org/pub/uploads/FS_QIOContactList_2C.pdf*

State Offices and Associations of Rural Health: *www.hrsa.gov/ruralhealth/about/directory/index.html*

State Primary Care Associations: *www.nachc.com/nachc-pca-listing.cfm*

Resources for Working with the Public

AHRQ. Measuring Your Blood Pressure at Home: A Review of the Research for Adults: *www.effectivehealthcare.ahrq.gov/ehc/products/193/894/smbp_cons_fin_to_post.pdf*

List of State/Local Affiliates for Patient and Community Groups

AARP: *www.aarp.org/states*

American Heart Association/American Stroke Association: *www.heart.org/HEARTORG/localization/chooseState.jsp*

YMCA: *www.ymca.net/find-your-y*

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Appendix A:
Medicaid Benefits for Self-Measured Blood Pressure Monitoring Plus Additional Support, by State

The table below lists state statutes, regulations, and other policy resources in effect in December 2012 pertaining to Medicaid coverage of blood pressure monitors (BPM) and associated support services. Legal researchers used the legal search engine WestlawNext and Google search engine to identify statutes and regulations containing the terms: blood pressure monitor, durable medical equipment, telemedicine, and Medicaid. The search results for regulations were filtered using three separate search terms to determine relevancy: HCPCS (Healthcare Common Procedure Coding System), blood pressure, and telemedicine. State policies providing general coverage of telemedicine services are listed as support services, though few states provide specific coverage for blood pressure telemedicine. While every effort has been made to identify relevant state policies, the content below might not reflect all relevant policies for any given jurisdiction. Furthermore, many state policies do not explicitly list all medical products and services covered by Medicaid, yet some products and services may be available if medically necessary pursuant to physician order. Additional information may be found through other legal search engines, such as StateNet, LexisNexis, CQ State Track, or others, as well as through state legislative and regulatory websites.

State	Legal and Policy Citations	Types of BPM Covered by Medicaid	Additional Support for BPM Covered by Medicaid
Alabama	Ala. Admin. Code r. 560-X-13.01 (2012); Alabama Medicaid Provider Manual, ch. 14 *Durable Medical Equipment (DME);* App. P *Durable Medical Equipment (DME) Procedure Code and Modifiers* (Oct. 2012)	Not specified[a,b]	—[c]
Alaska	Alaska Admin. Code tit. 7 § 120.200 (2010); Alaska Admin. Code tit. 7 § 120.210(b) (2010); Alaska Admin. Code tit. 7 § 160.900(a)(2) (2010)	A4660[d] A4663[e] A4670[f]	—[c]
	Alaska Admin. Code tit. 7 § 110.625(a)(3) (2010)	—[c]	Telemedicine services for self-monitoring
Arizona	No applicable statutes or regulations found		
Arkansas	Ark. Admin. Code 016.06.48-242.140 (2007)	A4670[f]	—[c]
California	No applicable statutes or regulations found		
Colorado	Colo. Rev. Stat. Ann. § 25.5-5-414 (West 2008); Colo. Rev. Stat. Ann. § 25.5-5-320 (West 2008); 10 Colo. Code Regs. 2505-10:8.525.15 (2007)	—[c]	Telemedicine services
Connecticut	No applicable statutes or regulations found		
Delaware	No applicable statutes or regulations found		
District of Columbia	DC MMIS Provider Billing Manual, *DME/POS Billing Manual,* v2.03 (Sept. 2012) & DC ST § 4-204.05 (2007)	Not specified[a,b]	—[c]

State	Legal and Policy Citations	Types of BPM Covered by Medicaid	Additional Support for BPM Covered by Medicaid
Florida	*Florida Medicaid Provider Reimbursement Handbook,* ch. 2, 97 (2010); see also Fla. Admin. Code r. 59G-4.001 & 59G-4.070 (2010)	Non-covered[g]	—[c]
Georgia	Georgia Department of Community Health, *Georgia Medicaid State Plan under Title XIX of the Social Security Act,* Attachment 3: Amount, Duration, and Scope of Services, p. 3b-1 (2009)	Non-covered[g]	—[c]
Hawaii	Haw. Admin. Rules § 17-1737-51.1 (2005)	—[c]	Telemedicine services
Idaho	No applicable statutes or regulations found		
Illinois	Ill. Admin. Code tit. 89, pt. 140.3 & Ill. Adm. Code tit. 89, pt. 140.403 (2012) and *Handbook for Providers of Medical Equipment and Supplies,* M-203 (2001)	Not specified[a,b]	Telemedicine services
Indiana	405 Ind. Admin. Code 5-19-6 (2012)	Not specified[b]	—[c]
	405 Ind. Admin. Code 5-38-1 (2007)	—[c]	Telemedicine services
Iowa	Iowa Admin. Code r. 441-78.10(249A)	A4663[e]	—[c]
Kansas	Kan. Admin. Regs. § 129-5-108 (2012)	Not specified[a]	—[c]
Kentucky	907 Ky. Admin. Regs. 1:479 (2010) & *DME Fee Schedule,* revision date Dec. 2010 (2010)	Not specified[a,b]	—[c]
	907 Ky. Admin. Regs. 3:170 (2012)	—[c]	Telemedicine services (managed care)
Louisiana	*Durable Medical Equipment Provider Manual: Chapter Eighteen of the Medicaid Services Manual,* 12 (2010); see also La. Admin. Code tit. 50, pt. II, § 10149	A4660[d] A4663e A4670[f]	—[c]
	La. Admin. Code tit. 50, pt. I, § 503 (2005)	—[c]	Telemedicine services
Maine	Code Me. R. 10-144 Ch. 101, Ch. II, § 60 App. (2011) & Code Me. R. 10-144 Ch. 101, Ch. I, § 1.06 (2011)	Not specified[b]	Telemedicine services
Maryland	No applicable statutes or regulations found		
Massachusetts	130 Code Mass. Regs. 603 (2012)	A4660[d] A4663[e] A4670[f]	—[c]
Michigan	No applicable statutes or regulations found		
Minnesota	No applicable statutes or regulations found		
Mississippi	Code Miss. Rules 23-209 (2012)	Not specified[b]	—[c]
Missouri	No applicable statutes or regulations found		
Montana	Mont. Admin. R. 37.86.1802	Not specified[a]	—[c]
Nebraska	471 Neb. Admin. Code § 7-013 (2003)	Covered with limitations	—[c]

State	Legal and Policy Citations	Types of BPM Covered by Medicaid	Additional Support for BPM Covered by Medicaid
Nevada	No applicable statutes or regulations found		
New Hampshire	N.H. Admin. R. Ann. HE-W 571.04, 571.05 & 571.06	Not specified[b]	—[c]
New Jersey	N.J. Admin. Code 10:59-2.3 (2012)	A4660[d] A4663[e] A4670[f]	—[c]
New Mexico	N.M. Code R. § 8.301.2.9 (2008)	Not specified[a]	—[c]
	N.M. Code R. § 8.310.13 (2007)	—[c]	Telemedicine services
New York	No applicable statutes or regulations found		
North Carolina	No applicable statutes or regulations found		
North Dakota	No applicable statutes or regulations found		
Ohio	Ohio Admin. Code 5101:3-10-05	Not specified[a]	—[c]
Oklahoma	No applicable statutes or regulations found		
Oregon	Or. Admin. R. 410-122 (2012)	Not specified[b]	—[c]
	Or. Admin. R. 410-130-0610 (2008)	—[c]	Telemedicine services
Pennsylvania	No applicable statutes or regulations found		
Puerto Rico	No applicable statutes or regulations found		
Rhode Island	No applicable statutes or regulations found		
South Carolina	No applicable statutes or regulations found		
South Dakota	No applicable statutes or regulations found		
Tennessee	No applicable statutes or regulations found		
Texas	1 Tex. Admin. Code § 354.1039 (2012)	Covered with limitations	—[c]
	1 Tex. Admin. Code § 354.1432 (2009)	—[c]	Telemedicine services
Utah	*Utah Medicaid Provider Manual,* Medical Supplies List, 14 (Oct. 2012); see also Utah Admin. Code r. R414-70-2(6) (2008) & Utah Admin. Code r. R414-1-5(2) (2012)	A4660[d] A4663[e] A4670[f]	—[c]
Vermont	13-170-750 Vt. Code R. § 7505.2 (2012)	BP cuffs/machines (including stethoscopes)	—[c]
Virginia	Virginia Medicaid Provider Manual, App. B15 (2012); see also 12 Va. Admin. Code § 30-50-165 & 12 Va. Admin. Code § 30-60-75	A4660[d] A4670[f] (with limitations)	—[c]

State	Legal and Policy Citations	Types of BPM Covered by Medicaid	Additional Support for BPM Covered by Medicaid
Washington	Wash. Admin. Code § 182-543-6000(10) (2011)	Non-covered[g]	—[c]
	Wash. Rev. Code § 74.09.658 (2009) & Wash. Admin. Code § 182-551-2125 (2012)	—[c]	Telemedicine services (i.e., home health BP monitoring)
West Virginia	Bureau for Medical Services Provider Manual, § 506.2.2 (2008); also see W. Va. Code R. § 11-15B-2(c)(18) (2006) & W. Va. Code R. § 11-15-9i (2007)	Non-covered[g]	—[c]
Wisconsin	No applicable statutes or regulations found		
Wyoming	Durable Medical Equipment Provider Manual, *Medical Supplies and Equipment: Covered Services and Limitations Module,* 15 (2009); also see Wyo. Admin. Code HLTH MDCD Ch. 11 § 5 (2005)	A4660[d] A4663[e] A4670[f]	—[c]

[a] Not specified: The provision does not list covered items.

[b] Not specified: BPM or telemedicine is not among the listed covered items, but also not listed under non-covered items.

[c]—: Indicates that no provision was identified.

[d]A4660: HCPCS code for mercury sphygmomanometer with a cuff and stethoscope.

[e]A4663: HCPCS code for BP cuff only.

[f]A4670: HCPCS code for automated BP monitor.

[g]Non-covered: The item is specifically excluded from covered items.

Note: State law references to telehealth are reported as telemedicine in this table.

Appendix B:

Top Five Insurance Plans in Each State for Managed Care Enrollment, by Market Share, Atlantic Information Services, Inc. Directory of Health Plans, 2011[31]

ALABAMA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Alabama	80.9
2	Patient 1st	9.8
3	Viva Health, Inc.	1.9
4	Blue Cross and Blue Shield of Illinois	1.3
5	CIGNA HealthCare, Inc.	1.3
	Other	4.8

ALASKA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Premera Blue Cross	53.7
2	Aetna	22.9
3	CIGNA HealthCare, Inc.	7.7
4	ODS Companies, The	6.0
5	Providence Health Plan	3.5
	Other	6.2

ARIZONA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross Blue Shield of Arizona	26.6
2	Aetna	12.1
3	United Healthcare	10.8
4	Mercy Care Plan	9.7
5	CIGNA HealthCare, Inc.	9.6
	Other	31.2

ARKANSAS

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Arkansas BlueCross BlueShield	39.6
2	Connect Care	27.9
3	HMO Partners, Inc.	10.1
4	CIGNA HealthCare, Inc.	4.9
5	QCA Health Plan, Inc.	4.8
	Other	12.7

CALIFORNIA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Kaiser Foundation Health Plan, Inc.	26.0
2	WellPoint, Inc.	23.1
3	Blue Shield of California	11.4
4	Health Net, Inc.	8.6
5	Aetna	5.8
	Other	25.1

COLORADO

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Kaiser Foundation Health Plan of Colorado, Inc.	22.4
2	CIGNA HealthCare, Inc.	19.1
3	WellPoint, Inc.	18.2
4	Aetna	12.0
5	Rocky Mountain Health Plans	8.0
	Other	20.3

CONNECTICUT

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	WellPoint, Inc.	22.4
2	Aetna	20.4
3	CIGNA HealthCare, Inc.	18.5
4	Community Health Network of Connecticut, Inc. (CHNCT)	14.8
5	ConnectiCare, Inc.	10.6
	Other	13.3

DELAWARE

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Aetna	36.0
2	Blue Cross Blue Shield of Delaware	34.6
3	Coventry Health and Life Insurance Company	12.4
4	United Healthcare	8.6
5	CIGNA HealthCare, Inc.	3.2
	Other	5.3

DISTRICT OF COLUMBIA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	CareFirst BlueCross BlueShield	90.2
2	Chartered Health Plan, Inc., The	3.4
3	United Healthcare	2.0
4	Aetna	2.0
5	Kaiser Foundation Health Plan of the Mid-Atlantic States, Inc.	1.3
	Other	1.2

FLORIDA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Blue Cross and Blue Shield of Florida, Inc.	28.3
2	Aetna	13.9
3	CIGNA HealthCare, Inc.	10.4
4	Humana Inc.	8.1
5	Florida MediPass	6.5
	Other	32.8

GEORGIA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	WellPoint, Inc.	23.4
2	Aetna	13.6
3	WellCare Health Plans, Inc.	13.4
4	CIGNA HealthCare, Inc.	11.3
5	Centene Corporation	7.3
	Other	31.1

HAWAII

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Hawaii Medical Service Association	59.4
2	Kaiser Foundation Health Plan of Hawaii	19.9
3	AlohaCare	6.9
4	Hawaii Medical Assurance Association (HMAA)	3.7
5	United Healthcare	3.2
	Other	7.0

IDAHO

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Blue Cross of Idaho Health Service, Inc.	41.0
2	Regence BlueShield of Idaho	20.7
3	Healthy Connections	18.2
4	Aetna	4.5
5	Group Health Cooperative	4.4
	Other	11.3

ILLINOIS

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Blue Cross and Blue Shield of Illinois	47.0
2	Illinois Health Connect	21.3
3	United Healthcare	9.0
4	Aetna	6.3
5	CIGNA HealthCare, Inc.	5.4
	Other	11.0

INDIANA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	WellPoint, Inc.	50.5
2	CIGNA HealthCare, Inc.	12.3
3	MDWise	7.8
4	Blue Cross and Blue Shield of Illinois	5.3
5	Centene Corporation	5.3
	Other	18.7

IOWA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Wellmark Blue Cross and Blue Shield of Iowa	70.4
2	Iowa MediPASS	10.7
3	Blue Cross and Blue Shield of Illinois	3.5
4	Aetna	3.1
5	CIGNA HealthCare, Inc.	2.6
	Other	9.8

KANSAS		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Kansas	46.1
2	Blue Cross and Blue Shield of Kansas City	13.9
3	Family Health Partners	8.1
4	Aetna	7.4
5	CIGNA HealthCare, Inc.	6.6
	Other	18.0

KENTUCKY		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	KenPAC PCCM Managed Care Program	25.8
2	WellPoint, Inc.	20.3
3	Humana Inc.	13.7
4	Bluegrass Family Health, Inc.	13.1
5	AmeriHealth Mercy Family of Companies	7.2
	Other	19.8

LOUISIANA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Louisiana	65.7
2	Humana Inc.	7.4
3	CIGNA HealthCare, Inc.	6.5
4	Aetna	6.4
5	Blue Cross and Blue Shield of Texas	4.2
	Other	9.7

MAINE		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	MaineCare	38.0
2	WellPoint, Inc.	26.3
3	Aetna	14.5
4	CIGNA HealthCare, Inc.	8.5
5	Harvard Pilgrim Health Care, Inc.	7.6
	Other	5.0

MARYLAND		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Aetna	19.9
2	CareFirst BlueCross BlueShield	17.7
3	United Healthcare	11.8
4	Kaiser Foundation Health Plan of the Mid-Atlantic States, Inc.	10.7
5	CIGNA HealthCare, Inc.	9.1
	Other	30.8

MASSACHUSETTS		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross Blue Shield of Massachusetts	45.6
2	Harvard Pilgrim Health Care, Inc.	14.9
3	Tufts Associated Health Plans, Inc.	10.7
4	Primary Care Clinician Plan	4.9
5	Boston Medical Center HealthNet Plan	4.1
	Other	19.9

MICHIGAN		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross Blue Shield of Michigan	57.3
2	Priority Health	7.8
3	Health Alliance Plan of Michigan	6.2
4	Aetna	3.8
5	Health Plan of Michigan, Inc.	3.6
	Other	21.4

MINNESOTA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Minnesota	44.0
2	Medica Health Plans	29.3
3	HealthPartners, Inc.	14.6
4	UCare	3.5
5	CIGNA HealthCare, Inc.	1.9
	Other	6.8

MISSISSIPPI		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross & Blue Shield of Mississippi	56.4
2	CIGNA HealthCare, Inc.	12.5
3	Aetna	9.2
4	Blue Cross and Blue Shield of Illinois	5.8
5	BlueCross BlueShield of Tennessee	5.6
	Other	10.5

MISSOURI		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Kansas City	22.6
2	Coventry Health and Life Insurance Company	16.1
3	CIGNA HealthCare, Inc.	13.8
4	Aetna	11.3
5	Blue Cross and Blue Shield of Illinois	5.2
	Other	30.9

MONTANA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Montana	46.4
2	CIGNA HealthCare, Inc.	21.0
3	Passport to Health	13.3
4	New West Health Services	7.6
5	Aetna	3.1
	Other	8.6

NEBRASKA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Blue Cross and Blue Shield of Nebraska	65.2
2	United Healthcare	9.5
3	Coventry Health and Life Insurance Company	6.8
4	Aetna	6.8
5	CIGNA HealthCare, Inc.	4.2
	Other	7.6

NEVADA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	United Healthcare	40.1
2	CIGNA HealthCare, Inc.	18.0
3	Aetna	11.5
4	Hometown Health Plan, Inc.	9.7
5	AMERIGROUP Community Care	7.3
	Other	13.5

NEW HAMPSHIRE

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Harvard Pilgrim Health Care, Inc.	29.2
2	WellPoint, Inc.	23.9
3	CIGNA HealthCare, Inc.	21.2
4	Aetna	10.5
5	MVP Health Care	5.4
	Other	9.7

NEW JERSEY

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Horizon Blue Cross Blue Shield	50.9
2	Aetna	23.2
3	United Healthcare	8.9
4	CIGNA HealthCare, Inc.	8.0
5	AmeriHealth Insurance Company of New Jersey/AmeriHealth HMO, Inc.	2.4
	Other	6.6

NEW MEXICO		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Presbyterian Health Plan/Presbyterian Insurance Company	34.5
2	Blue Cross and Blue Shield of New Mexico	25.2
3	Lovelace Health Plan	17.3
4	Molina Healthcare, Inc.	8.0
5	CIGNA HealthCare, Inc.	3.5
	Other	11.5

NEW YORK		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	WellPoint, Inc.	19.3
2	United Healthcare	11.2
3	Excellus BlueCross BlueShield	11.2
4	GHI, an EmblemHealth Company	9.4
5	Aetna	6.6
	Other	42.2

NORTH CAROLINA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of North Carolina	43.9
2	Community Care of North Carolina/Carolina Access	20.0
3	North Carolina State Health Plan	11.8
4	CIGNA HealthCare, Inc.	7.7
5	Aetna	5.6
	Other	10.9

NORTH DAKOTA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross Blue Shield of North Dakota	82.4
2	Primary Care Case Management	8.6
3	Aetna	2.4
4	Blue Cross and Blue Shield of Illinois	2.1
5	CIGNA HealthCare, Inc.	1.4
	Other	3.1

OHIO		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Medical Mutual of Ohio	31.0
2	WellPoint, Inc.	19.4
3	Aetna	11.0
4	CareSource	10.7
5	Molina Healthcare, Inc.	3.1
	Other	24.9

OKLAHOMA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	SoonerCare	35.6
2	Blue Cross and Blue Shield of Oklahoma	29.3
3	Aetna	10.3
4	CommunityCare Managed Healthcare Plans of Oklahoma	5.9
5	Oklahoma State and Education Employees Group Insurance Board	5.5
	Other	13.3

OREGON		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Regence BlueCross BlueShield of Oregon	18.6
2	Kaiser Foundation Health Plan of the Northwest, Inc.	17.1
3	Providence Health Plan	12.5
4	ODS Companies, The	9.1
5	PacificSource Health Plans	6.7
	Other	36.0

PENNSYLVANIA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Highmark Blue Cross Blue Shield	30.0
2	Independence Blue Cross	17.6
3	Aetna	9.5
4	Capital Blue Cross	7.8
5	UPMC Health Plan, Inc.	4.7
	Other	30.4

RHODE ISLAND

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Blue Cross & Blue Shield of Rhode Island	62.5
2	United Healthcare	13.3
3	Neighborhood Health Plan of Rhode Island, Inc.	11.7
4	Tufts Associated Health Plans, Inc.	3.7
5	Aetna	3.5
	Other	5.4

SOUTH CAROLINA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	BlueCross BlueShield of South Carolina	42.1
2	AmeriHealth Mercy Family of Companies	10.4
3	CIGNA HealthCare, Inc.	9.7
4	South Carolina Solutions	5.9
5	Aetna	5.8
	Other	26.1

SOUTH DAKOTA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Wellmark Blue Cross and Blue Shield of South Dakota	44.1
2	PRIME	18.7
3	Avera Health Plans	12.0
4	Sanford Health Plan	9.2
5	DAKOTACARE	5.3
	Other	10.7

TENNESSEE

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	BlueCross BlueShield of Tennessee	57.0
2	CIGNA HealthCare, Inc.	13.8
3	United Healthcare	13.2
4	Aetna	4.7
5	AMERIGROUP Community Care	4.5
	Other	6.8

TEXAS

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Blue Cross and Blue Shield of Texas	34.7
2	Aetna	22.5
3	CIGNA HealthCare, Inc.	8.8
4	AMERIGROUP Community Care	5.1
5	Centene Corporation	4.0
	Other	24.9

UTAH

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	SelectHealth	36.3
2	Regence BlueCross BlueShield of Utah	21.4
3	Coventry Health and Life Insurance Company	9.1
4	Aetna	6.5
5	Molina Healthcare, Inc.	5.3
	Other	21.4

VERMONT

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	Global Commitment to Health	38.1
2	Blue Cross and Blue Shield of Vermont	34.2
3	CIGNA HealthCare, Inc.	22.2
4	Aetna	2.7
5	DAKOTACARE	0.8
	Other	2.1

VIRGINIA

Rank	Health Plan	Share of Total Managed Care Enrollment in State, %
1	WellPoint, Inc.	35.5
2	Aetna	16.2
3	Sentara Health Plans, Inc.	13.2
4	CIGNA HealthCare, Inc.	10.4
5	Kaiser Foundation Health Plan of the Mid-Atlantic States, Inc.	5.8
	Other	18.9

WASHINGTON		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Premera Blue Cross	29.8
2	Regence BlueShield	25.1
3	Group Health Cooperative	8.1
4	Molina Healthcare, Inc.	8.1
5	Aetna	7.3
	Other	21.5

WEST VIRGINIA		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Mountain State Blue Cross Blue Shield	33.2
2	Physician Assured Access System	12.5
3	WellPoint, Inc.	10.1
4	Aetna	8.9
5	Health Plan of the Upper Ohio Valley, Inc.	8.3
	Other	27.0

WISCONSIN		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	WellPoint, Inc.	13.4
2	United Healthcare	13.1
3	Dean Health Insurance, Inc.	9.8
4	Arise Health Plan	6.9
5	Security Health Plan of Wisconsin, Inc.	6.9
	Other	50.0

WYOMING		
Rank	**Health Plan**	**Share of Total Managed Care Enrollment in State, %**
1	Blue Cross and Blue Shield of Wyoming	46.2
2	CIGNA HealthCare, Inc.	30.0
3	Blue Cross and Blue Shield of Texas	5.7
4	Aetna	4.9
5	WINhealth Partners	4.6
	Other	8.7

Abbreviations Used

AAMI: Association for the Advancement of Medical Instrumentation

AHA: American Heart Association

AHRQ: Agency for Healthcare Research and Quality

AIS: Atlantic Information Services, Inc.

ASH: American Society of Hypertension

BHS: British Hypertension Society

BRFSS: Behavioral Risk Factor Surveillance System

DBP: diastolic blood pressure

EHS: European Hypertension Society

FDA: Food and Drug Administration

FSA: flexible spending account

HTN: hypertension

NHANES: National Health and Nutrition Examination Survey

NQF: National Quality Forum

PCNA: Preventive Cardiovascular Nurses Association

SBP: systolic blood pressure

SMBP: self-measured blood pressure monitoring

Million Hearts™ is a U.S. Department of Health and Human Services initiative that is co-led by the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, with the goal of preventing one million heart attacks and strokes by 2017.

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