

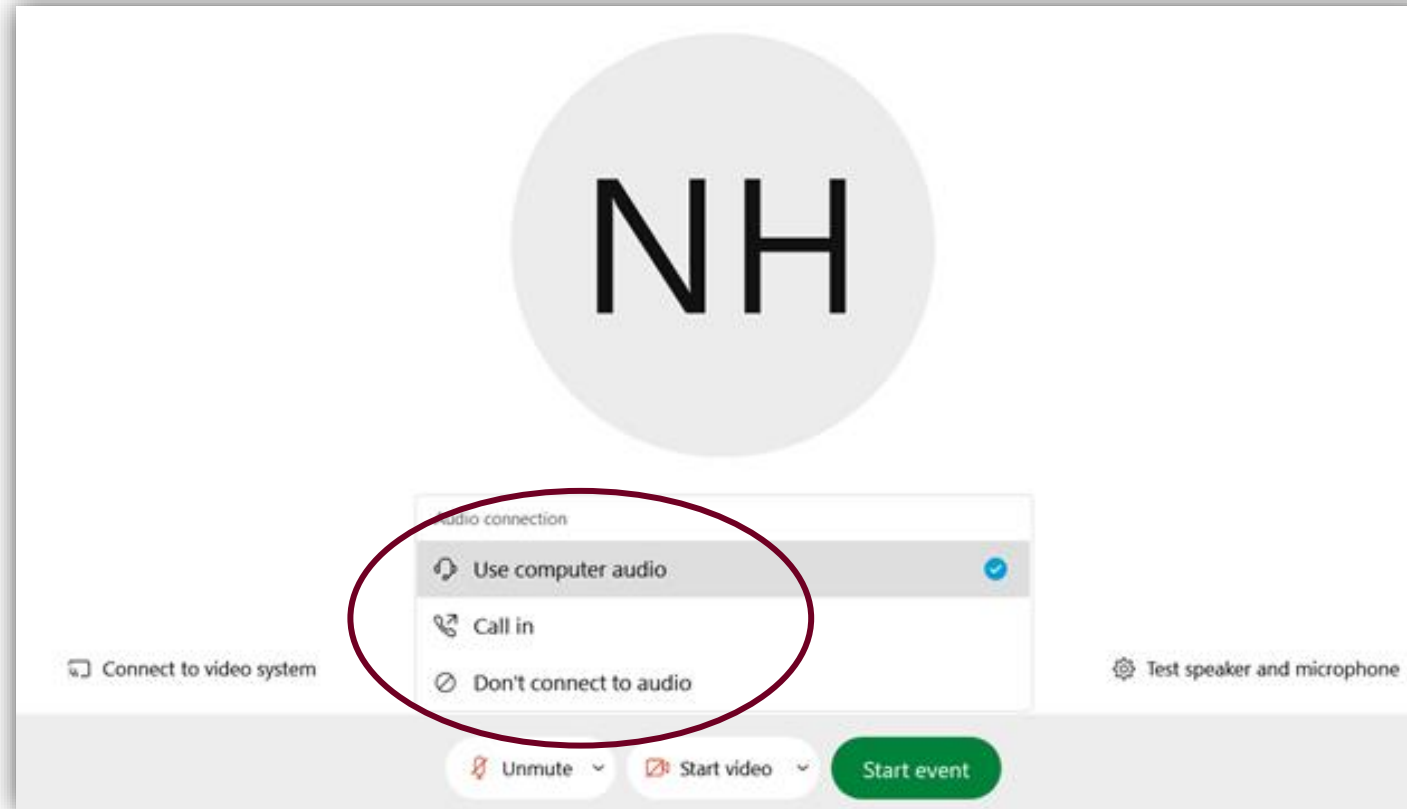
Ensure you've connected to audio!

Option 1: "Call In"

Follow the process to dial in from a phone

Option 2: "Use Computer Audio"

You must have computer speakers and microphone



After connecting, if you don't see a phone/headset icon next to your name, please attempt to connect your audio again!

Million Hearts® Self-Measured Blood Pressure Monitoring (SMBP) Forum

June 9, 2022
1:00-2:00 PM EST



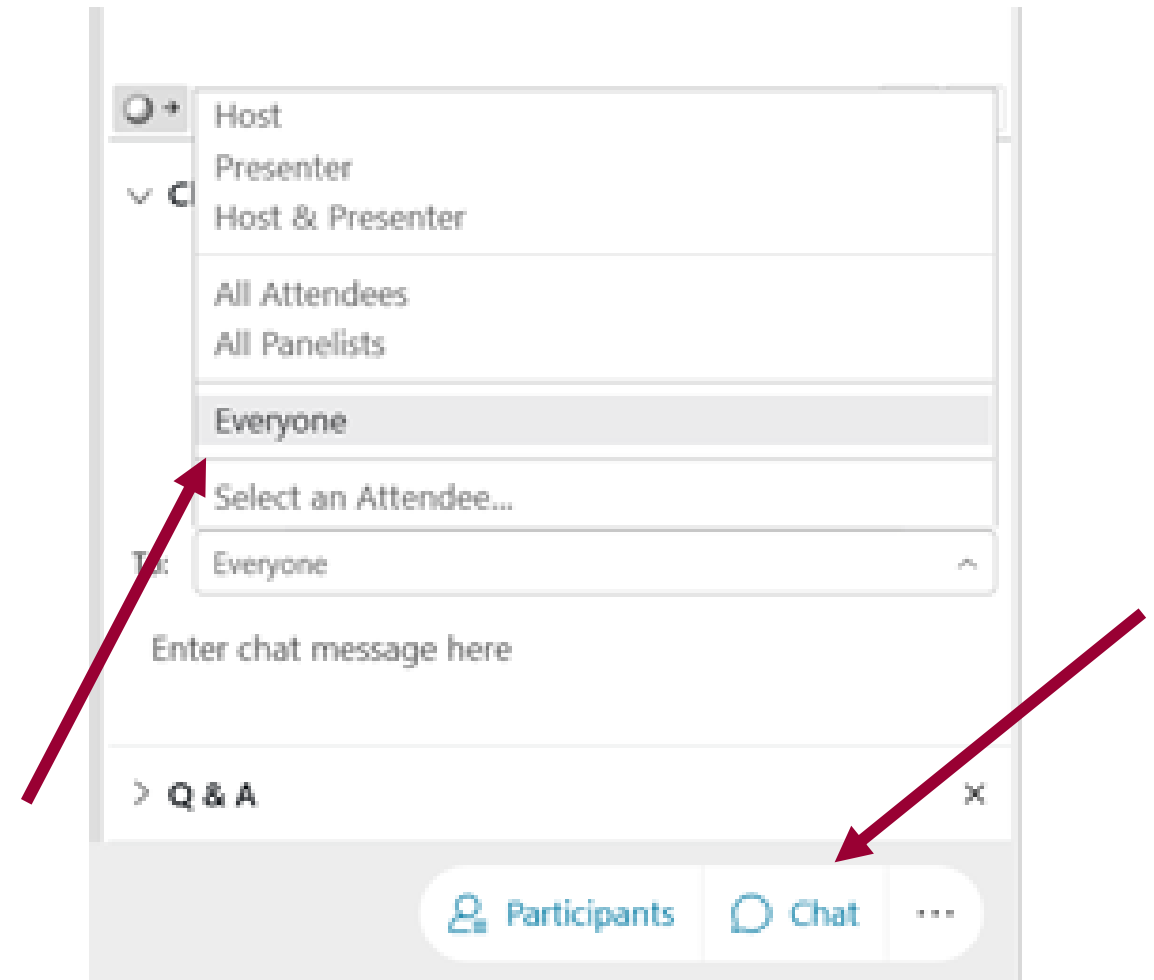
How to Chat

The chat feature is available to pose questions to the group or make comments anytime throughout today's webinar.

Submit to “**Everyone**” and click the send button.

Introduce yourself!

Where are you joining us from?

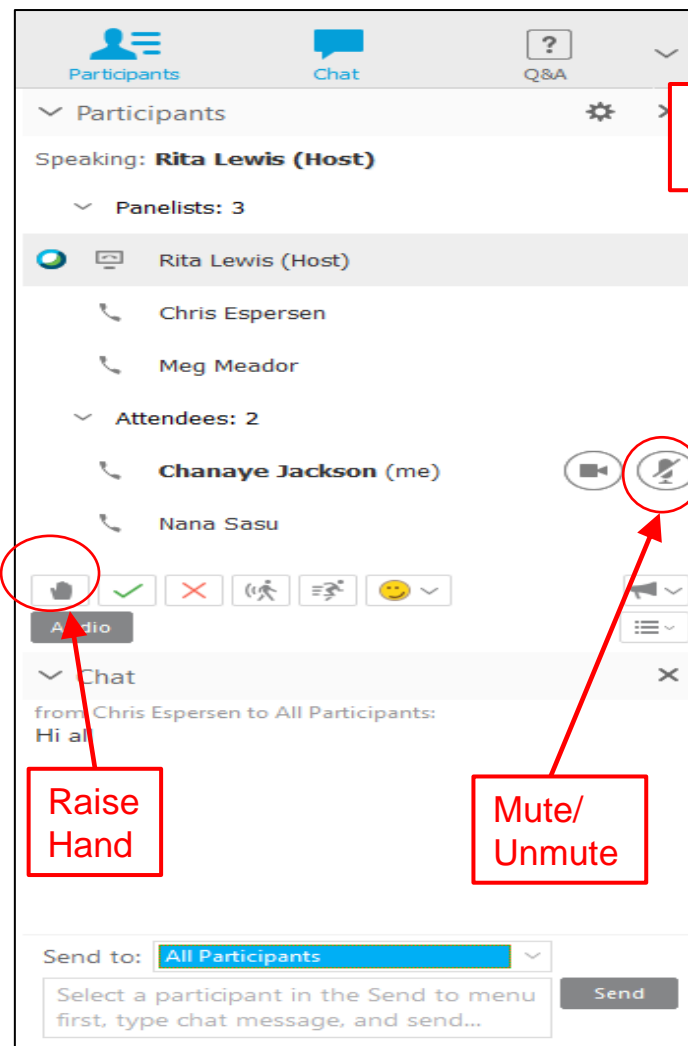


How to Speak and Participate (Computer and Mobile)

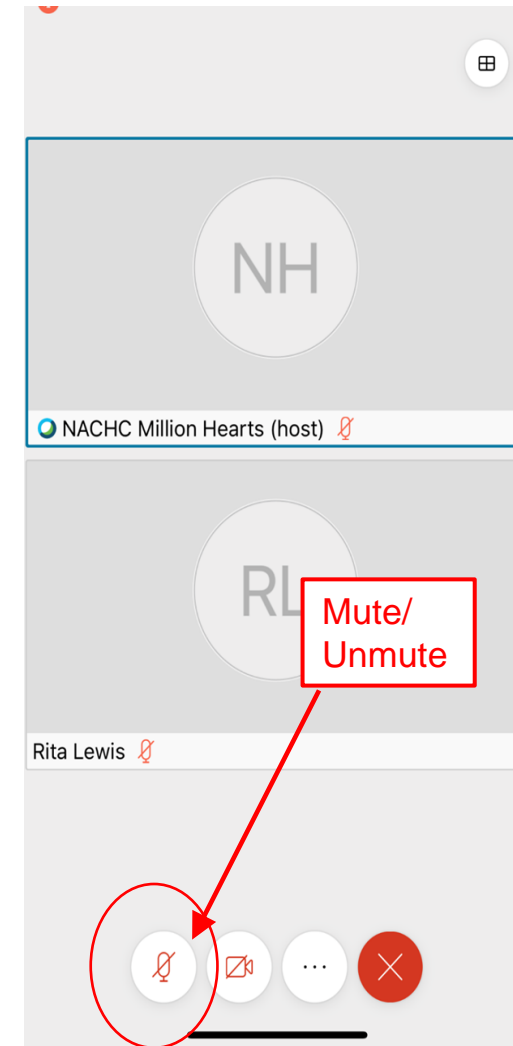
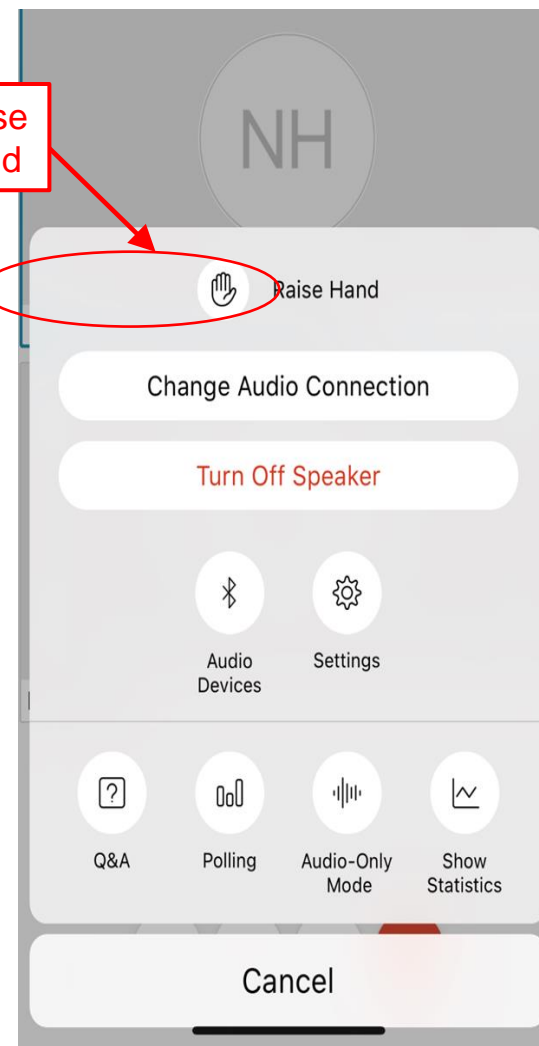
Please “**raise your hand**” to indicate to the host that you would like to speak to the Forum.

To do so, click the **hand symbol icon**. Once clicked, a gray hand will appear beside your name in the participant list.

After you have been called or spoken, click the hand symbol icon again to lower your hand.



Raise Hand



Mute/Unmute

Disclaimer

The opinions expressed by authors contributing to this project do not necessarily reflect the opinions of the US Department of Health and Human Services, the Public Health Service, the Centers for Disease Control and Prevention, or the authors' affiliated institutions. Use of trade names is for identification only and does not imply endorsement by any of the groups named below.



Agenda

- **Welcome, Introductions, and Agenda Overview**
- **Featured Presenters**
 - Dr. Michael Rakotz, American Medical Association
 - Deb McGrath, Health Federation of Philadelphia
- **Open Discussion**
- **Additional Resources and Updates**
 - Nar Ramkissoon - American Medical Association
 - Laura Hale – American Heart Association
 - Meg Meador - NACHC
- **Closing**



Today's Objectives

- Gain and share insight from practices with experience navigating SMBP readings with patients that are too low or high.
- Learn strategies on how clinicians can inform patients on when and how to respond to SMBP readings that are too low or high.
- Share data and parameters for raising the alarm with patients
- Share formats and templates to ensure the efficient exchange of SMBP Data



Mentimeter!

Join Directly:

<https://www.menti.com/7h7tbnyxsd>

OR

Go to: www.menti.com

Enter the code: 9269 1086

OR

Use the QR Code →



Attendee Poll #1

How frequently do you receive outlier self-measured BP readings (>180/>120)?

- A. Always
- B. Often
- C. Sometimes
- D. Rarely
- E. Never
- F. I don't know



Attendee Poll #2

How confident are you that everyone on your care team knows how to respond appropriately to outlier self-measured BP readings (>180/>120)?

- A. Completely Confident**
- B. Fairly Confident**
- C. Somewhat Confident**
- D. Slightly Confident**
- E. Not Confident at All**
- F. I don't know**



Overview of Current Clinical Guidelines

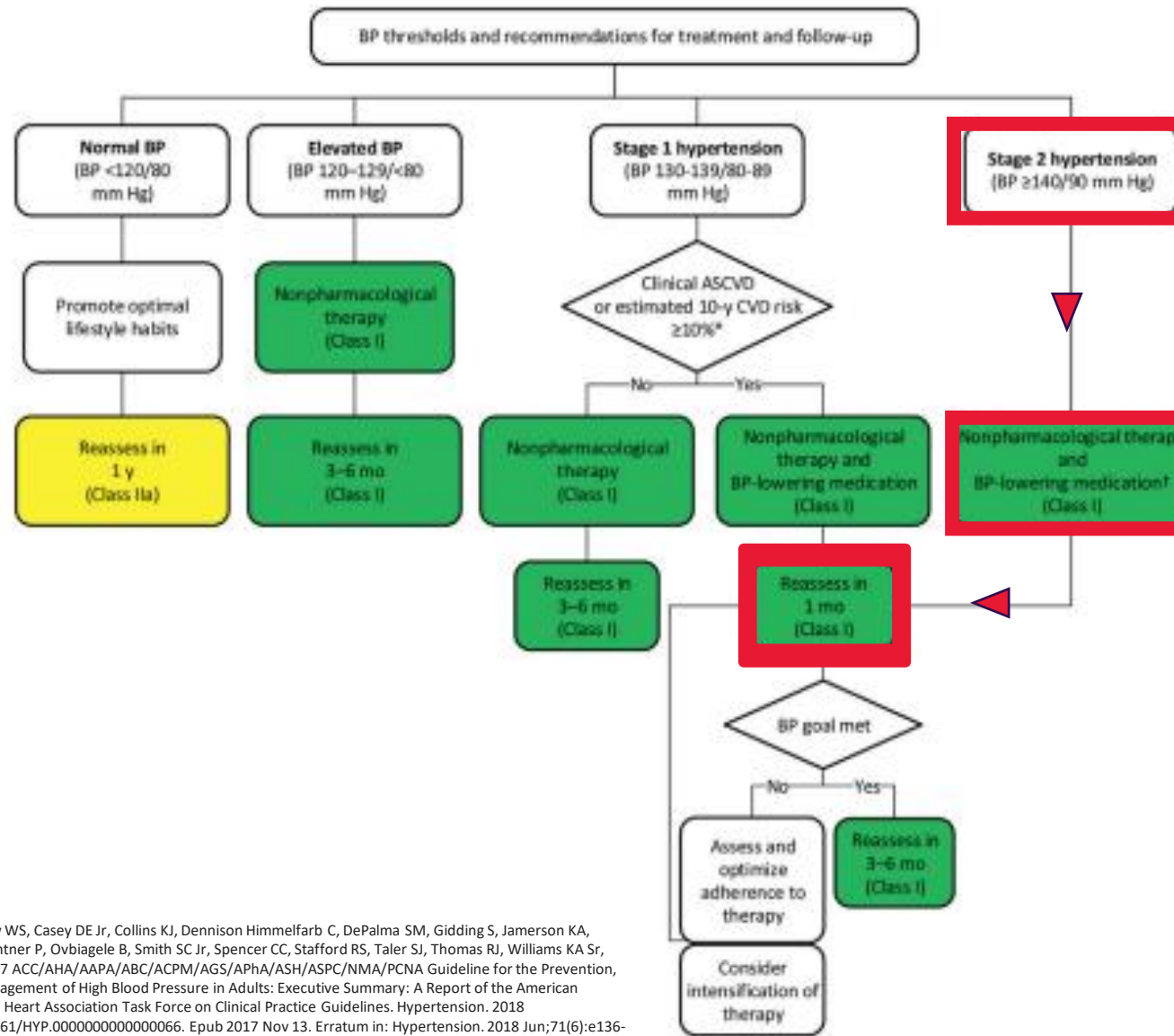




Having a Plan for Very High (and Low) BP Measurements

Michael Rakotz, MD FAHA FAAFP
Vice President, Health Outcomes
American Medical Association

FIGURE 4 Blood Pressure (BP) Thresholds and Recommendations for Treatment and Follow-Up



**Reassessment
monthly includes:**

BP measurement

- Identification of white coat effect

- Detection of orthostatic hypotension in selected patients

**Consider
treatment
intensification**

- Assess and optimize adherence to treatment

Whelton PK, Carey RM, Aronow WS, Casey DE Jr, Collins KJ, Dennison Himmelfarb C, DePalma SM, Gidding S, Jamerson KA, Jones DW, MacLaughlin EJ, Muntner P, Ovbigele B, Smith SC Jr, Spencer CC, Stafford RS, Taler SJ, Thomas RJ, Williams KA Sr, Williamson JD, Wright JT Jr. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Hypertension. 2018 Jun;71(6):1269-1324. doi: 10.1161/HYP.0000000000000066. Epub 2017 Nov 13. Erratum in: Hypertension. 2018 Jun;71(6):e136-e139. Erratum in: Hypertension. 2018 Sep;72(3):e33. PMID: 29133354.

2017 ACC/AHA HTN Guideline

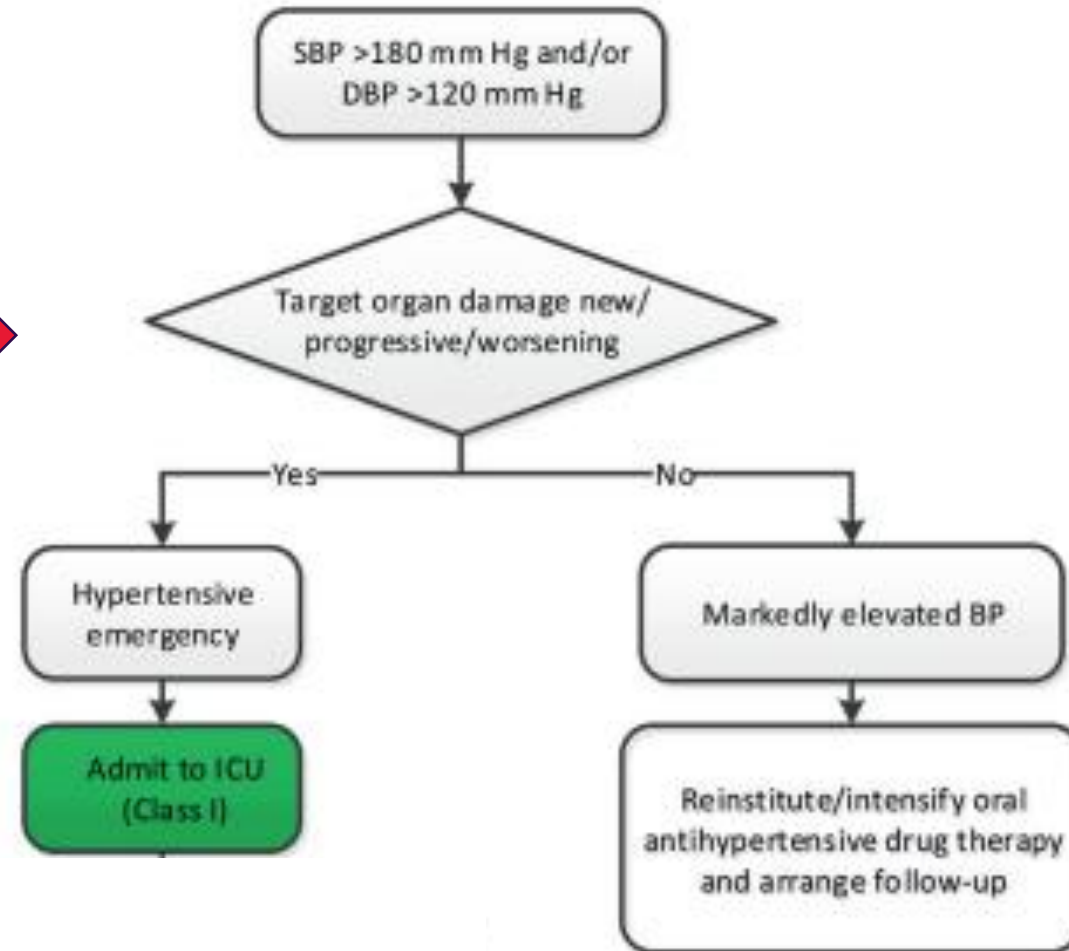
- Adults with newly diagnosed stage 2 hypertension should be evaluated by a primary care provider within 1 month of the initial diagnosis
 - assess for hypertension mediated target organ damage / establish baseline
 - includes a medical history, physical examination and labs/diagnostics (Glu, CBC, Lipid profile, serum creatinine/ eGFR, TSH, UA, EKG +/- Echo, uric acid, urine alb:crea)
- For adults with HTN and very high average BP (e.g., SBP \geq 180 mm Hg or DBP \geq 110 mm Hg), evaluation followed by prompt antihypertensive drug treatment is recommended

Whelton PK, Carey RM, Aronow WS, Casey DE Jr, Collins KJ, Dennison Himmelfarb C, DePalma SM, Gidding S, Jamerson KA, Jones DW, MacLaughlin EJ, Muntner P, Ovbiagele B, Smith SC Jr, Spencer CC, Stafford RS, Taler SJ, Thomas RJ, Williams KA Sr, Williamson JD, Wright JT Jr. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Hypertension. 2018 Jun;71(6):1269-1324. doi: 10.1161/HYP.0000000000000666. Epub 2017 Nov 13. Erratum in: Hypertension. 2018 Jun;71(6):e136-e139. Erratum in: Hypertension. 2018 Sep;72(3):e33. PMID: 29133354.

Hypertensive urgency vs Emergency



2017
ACC/AHA
HTN
Guideline



Whelton PK, Carey RM, Aronow WS, Casey DE Jr, Collins KJ, Dennison Himmelfarb C, DePalma SM, Gidding S, Jamerson KA, Jones DW, MacLaughlin EJ, Muntner P, Ovbigele B, Smith SC Jr, Spencer CC, Stafford RS, Taler SJ, Thomas RJ, Williams KA Sr, Williamson JD, Wright JT Jr. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Hypertension. 2018 Jun;71(6):1269-1324. doi: 10.1161/HYP.0000000000000666. Epub 2017 Nov 13. Erratum in: Hypertension. 2018 Jun;71(6):e136-e139. Erratum in: Hypertension. 2018 Sep;72(3):e33. PMID: 29133354.

Every Patient Needs a Plan and understand what to do if their BP is too high, too low, or if they have symptoms

Self-measured blood pressure:
Seven-day recording log

AMA | MAPBP™

Instructions: Complete the information below each time you take a measurement. It is best to take two measurements in the morning and two measurements in the evening for a week. If you miss any blood pressure measurements, leave that section blank and continue for the next time.

Blood pressure arm: ☐ Left or ☐ Right (check one)

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Morning * | Morning * | Morning * | Morning * | Morning * | Morning * | Morning * |
| 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE |
| 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE |
| Notes | Notes | Notes | Notes | Notes | Notes | Notes |
| Evening ☾ | Evening ☾ | Evening ☾ | Evening ☾ | Evening ☾ | Evening ☾ | Evening ☾ |
| 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE | 1 SYS DIA PULSE |
| 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE | 2 SYS DIA PULSE |
| Notes | Notes | Notes | Notes | Notes | Notes | Notes |

For office use
Patient name: _____
Patient ID: _____
PCP: _____
SMBP average: _____ SYS / _____ DIA

Report back results by:
☐ Appointment
☐ Phone
☐ Email
☐ Patient Portal
☐ Other _____

Important information
Please call your doctor's office if:
• Your blood pressure is above _____ SYS or _____ DIA
• Your blood pressure is below _____ SYS or _____ DIA
• You have symptoms that concern you or have a question about your blood pressure.

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Important information

Please call your doctor's office if:

- Your blood pressure is above _____ SYS or _____ DIA
- Your blood pressure is below _____ SYS or _____ DIA
- You have symptoms that concern you or have a question about your blood pressure.

Important information
Please call your doctor's office if:
• Your blood pressure is above _____ SYS or _____ DIA
• Your blood pressure is below _____ SYS or _____ DIA
• You have symptoms that concern you or have a question about your blood pressure.

Sample Action Plan, *NHS*

For Clinicians:

- ☐ Explain to the patient that readings relayed to office are not monitored continuously and obtains their signed consent that the patient remains responsible for their own health
- ☐ Monitor the patient's BP readings weekly, and if unable to do so, ensures another clinician in the practice team does so.
- ☐ Understands what to do if the readings are outside set parameters

Sample Action Plan, NHS












For Patients:



Shared management plan
Blood pressure control (patients without
diabetes or CKD and/or ACR \geq 70 mg/mmol)



PATIENT NAME: _____

| BLOOD PRESSURE READINGS taken by patient at home | RECOMMENDED ACTIONS (Always check your BP again if unusually high) |
|--|--|
| Below 70/50 mmHg Please note that if you send in a reading that is lower than an acceptable range, (e.g. you text 70/50 mmHg or lower), Flo will ask you to take your BP again. | ACTION - If it is still as low as this an hour later you should call a doctor urgently today and they can talk through any other symptoms you have and agree if you should be seen urgently. |
| Less than 135/85 mmHg Your blood pressure is under control when the top (systolic) measurement is less than 135 mmHg and the bottom (diastolic) measurement is less than 85 mmHg. We hope your blood pressure readings will be below 135/85 mmHg when you take them at home. |  <ul style="list-style-type: none">✓ Follow a healthy lifestyle.✓ Eat sensibly – 5 portions of fruit and vegetables every day, and cut down on fat, sugar and salt  <ul style="list-style-type: none">Take plenty of exercise – half an hour walking each day, if you can.  <ul style="list-style-type: none">For alcohol, women should not drink more than 14 units per week or 3 units in one day, and men no more than 21 units per week or 4 units in one day.✓ Keep your weight down, and aim for a body mass index of less than 25. If you smoke, think about stopping – ask at the practice if you would like support. |
| No more than 170/105 mmHg Sometimes your blood pressure may be raised, and your reading may be as high as 170/105 mmHg. Although this is a high reading, it might settle without any further change to your medication if this is an unusual reading. If your blood pressure remains between 150/95 – 170/105 mmHg  If it is between 135/85-149/94 mmHg  |  <ul style="list-style-type: none">✓ Keep taking the tablets every day as your doctor has prescribed  <ul style="list-style-type: none">✓ Think if there is anything which might have made your blood pressure worse, and if you can identify it, take action to alter what has taken place.✓ Were you angry or stressed? <p>Make an appointment with your GP or practice nurse in the next few days.</p> <p>Wait and see if it settles and go for your next usual blood pressure review.</p> |
| Above 170/105 mmHg If your BP reading rises further: above 170/105 mmHg (that is above either 170 mmHg and / or 105 mmHg)   Very high blood pressure could trigger a stroke, so it's important for a doctor to consider adjusting your tablets as soon as possible to lower your blood pressure. |  <ul style="list-style-type: none">✓ Stay calm, try some relaxation techniques. Just sitting still and thinking about your breathing can help to calm you down. Or think about a relaxing time you've had in the past (e.g. holiday, long soak in the bath). <p>ACTION - If you repeat your blood pressure reading an hour later, and it's still as high, make an appointment to see your doctor or practice nurse within the next couple of days if it's just above 170/105 mmHg.</p> <p>ACTION - If your blood pressure reaches 200/105 mmHg, or even higher, and you confirm this is still as high one hour later, this is very high and you should contact a doctor urgently today. Phone the surgery, or if it's at night or the weekend phone the out of hours urgent contact number, so they can agree with you when you should be reviewed.</p> |

Provider and Patient SMBP Policies in Practice



The Patient is Enrolled in SMBP, Now What?

Debra McGrath, MSN, FNP
Director of Health Information
Technology

June 9, 2022



HEALTH FEDERATION
OF PHILADELPHIA

The keystone of community health since 1983

ABOUT US

The Health Federation of Philadelphia promotes health equity for marginalized communities by advancing access to high-quality, integrated, and comprehensive health and human services.



SMBP – How is it different from RPM?

Remote patient monitoring (RPM) “uses digital technology to gather physiologic data (BP measurements) from patients in one location and transmit that information to a physician, nurse, or other clinical staff in another location for analysis”

The health care team can then use this information to ***monitor*** the patient's condition, ***provide recommendations***, and/or ***make changes to the care plan***.

SMBP programs use RPM to collect patient-generated BP measurements, perform analysis on those measurements, make changes to the treatment program and graduate the patient from the program when control has been reached



Critical Success Factors for SMBP Program

- Executive sponsorship
 - Support for technology improvements and upgrades
 - Support for staffing needs
 - Support for seeking revenue streams that lead to sustainability
- Clinical championship
 - Develop buy-in among the PCPs
 - Supports and elevates the importance and need for team-based approach



Critical Success Factors for SMBP Program

- Staffing
 - Enrollment
 - Monitoring
 - Communication, outreach and patient education
 - Engaged PCPs and clinical pharmacists responsible for changes to the treatment plan
- Technology
 - Secure clinical portal where all patients enrolled in the program can be viewed and where BP readings can be stored
 - Adequate EHR functionality that allows for the documentation of average BP measurements
 - Selection of a self-reporting, validated BP cuff that connects easily to the patient-facing app and instills confidence in the BP measurements that are submitted by the patient



Stories From the Field

- What to do when the patient is:
 - Not taking BP readings as prescribed
 - The BP measurements in the office are higher than home readings
 - The home BP measurements are running dangerously high



The Health Federation of Philadelphia is continually developing new programs in response to both the needs of underserved communities and the availability of data indicating improved approaches to health care and behavioral support.

FOR MORE INFORMATION ABOUT OUR INITIATIVES, PLEASE VISIT:
www.healthfederation.org



@HealthFedPhila



@HealthFederationofPhiladelphia



Open Discussion

- What protocols or policies do you have to share to patients or the care team?
- What is the most important message to share with patients when they are loaned a SMBP device?





Medicaid coverage for SMBP

Nar Ramkissoon, MPH
Senior Manager, American Medical Association

Medicaid SMBP coverage landscape

ideal

❖ SMBP Services and Automatic Device (99473, 99474, and A4670, n=18)

Arizona*, Colorado*, Delaware*, Hawaii*, Idaho*, Indiana*, Michigan*, Nebraska*, New Jersey*, New Mexico*, North Carolina, North Dakota*, Ohio*, Oregon*, Texas*, Virginia*, Wisconsin*, Wyoming* **Maryland to cover device and services Jan 1, 2023**

*These also cover the extra BP cuff (A4663) **16 of the 18**. Ohio and Nebraska do not cover 99474.

partial

❖ SMBP Services ONLY (99473 and 99474, n=4)

Georgia, Kentucky, Montana, Rhode Island*

*Rhode Island does not cover 99474

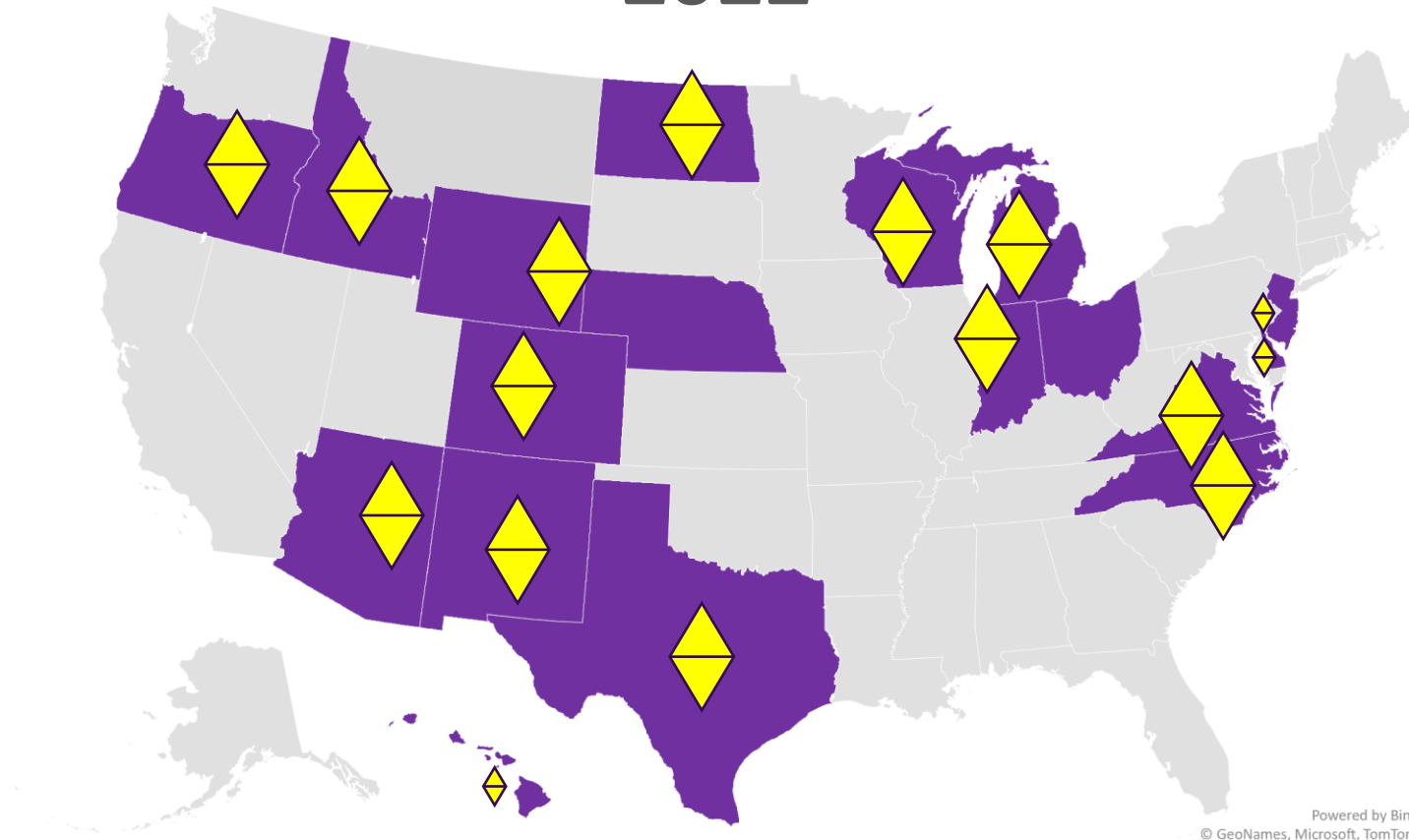
❖ Automated Blood Pressure Device ONLY (A4670, n= 19)

Alaska*, Arkansas, California*, Connecticut*, D.C.*, Illinois*, Iowa, Louisiana*, Maine Maryland*, Massachusetts*, Minnesota*, Missouri*, Nevada, New Hampshire*, New York*, Utah*, Vermont, Washington*

* These also cover the extra BP cuff (A4663) **14 of the 19**

SMBP Device and Service Coverage Timeline

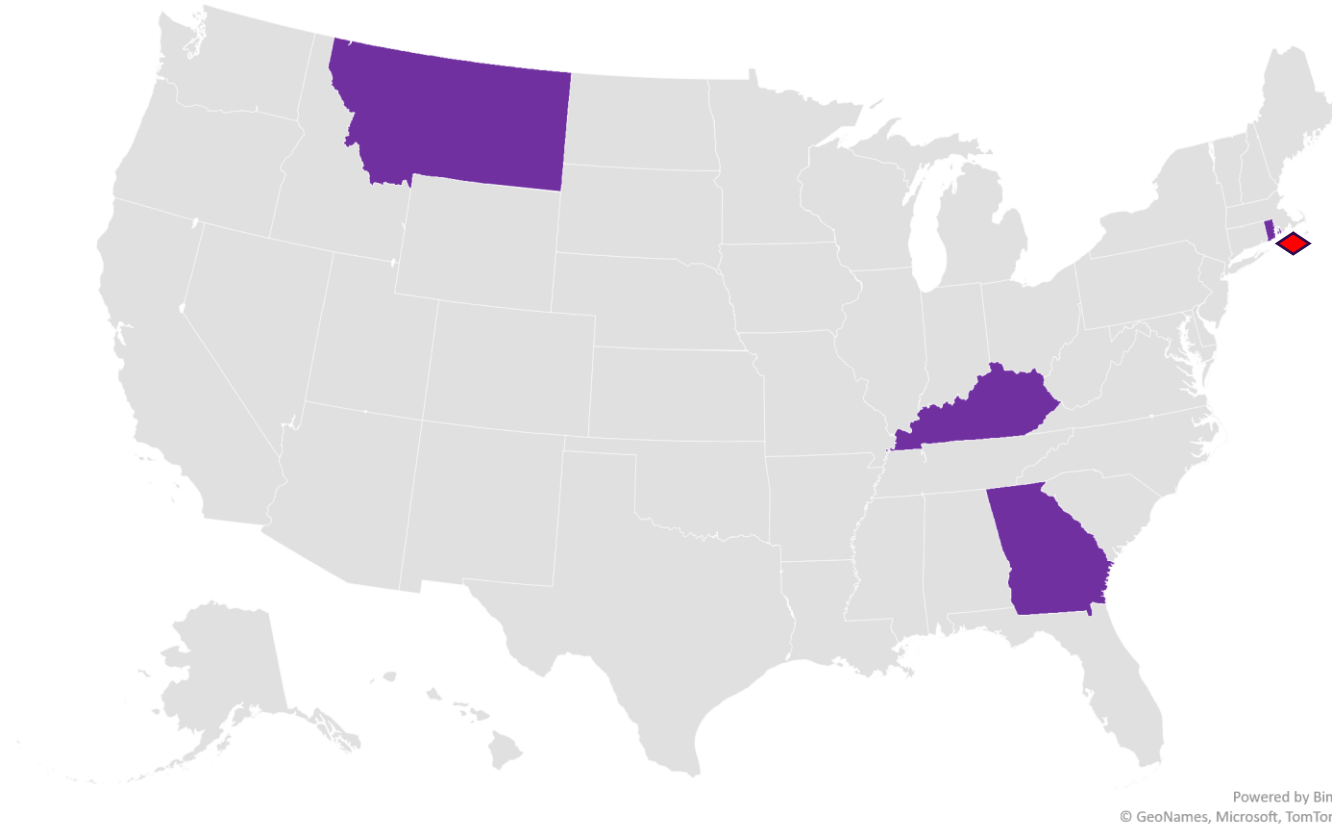
2022



- = Device and service coverage
- ◆ = Covers all cuff sizes

SMBP Service Coverage Only

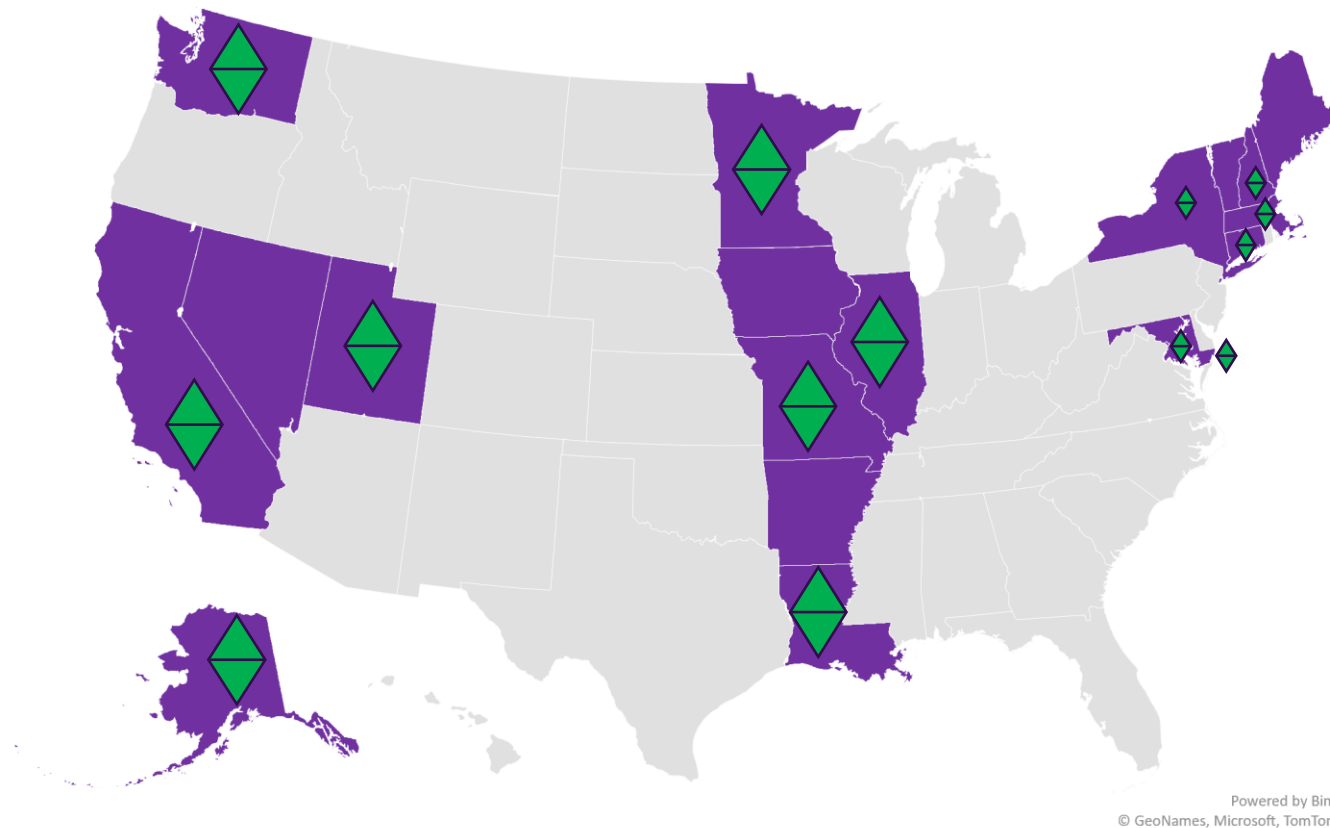
2022



= Rhode Island does not cover 99474

Automated BP Device Coverage Only

2022



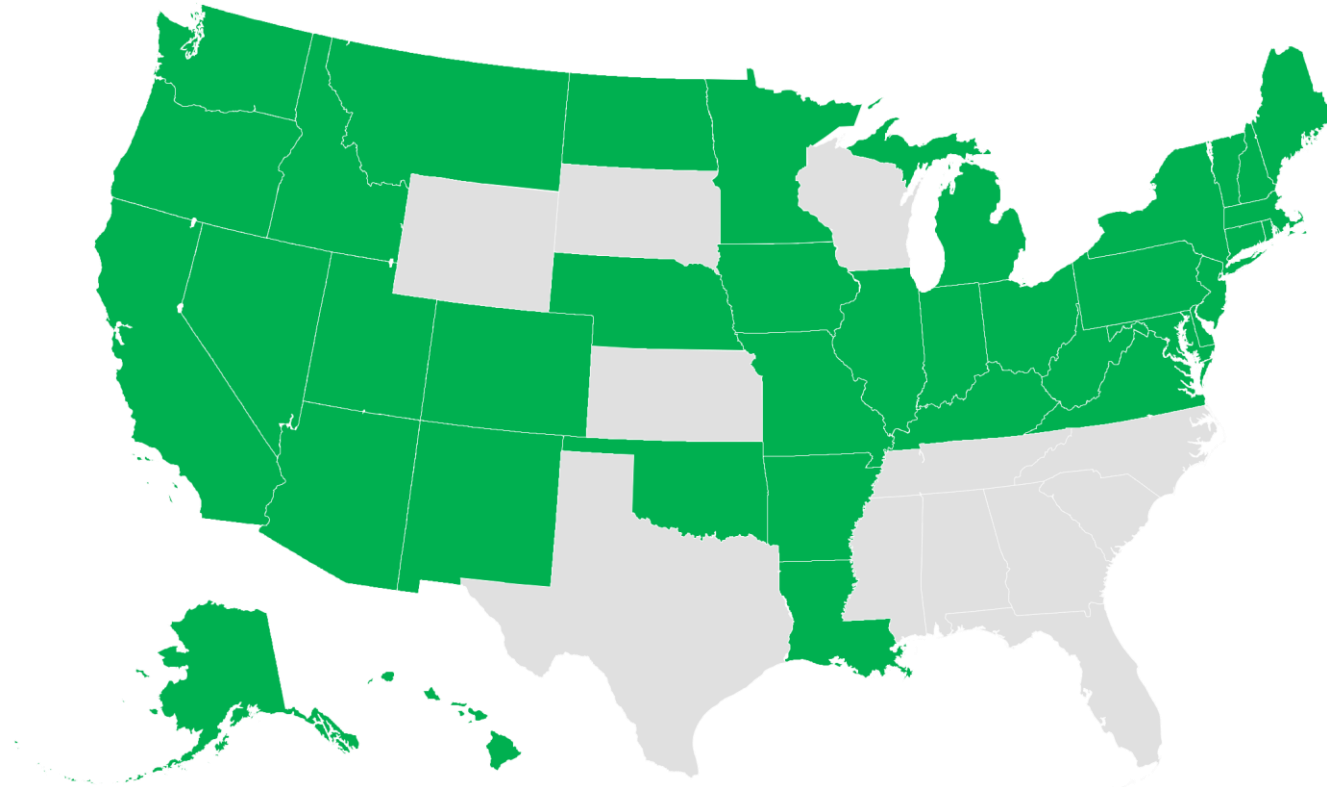
 = also cover the extra BP cuff (A4663)

Medicaid Expansion Status by State

2022

● = Adopted and Implemented (39)

● = Not Adopted (12)



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SMBP Coverage Insights: Medicaid

As of 2/28/2022



Self-measured blood pressure (SMBP) is an evidence-based strategy that can improve blood pressure control for individuals with hypertension. SMBP is most effective when an individual has access to a validated blood pressure device for home use coupled with ongoing clinical support. Refer to the US Blood Pressure Validated Device Listing (VDL™) for a list of validated devices.

The chart below shows the status of coverage by state for 1) SMBP clinical services and 2) automated blood pressure devices and standalone cuff. It is intended to highlight which states offer provider reimbursement to perform SMBP services and allow Medicaid patients to obtain an automated blood pressure device.

CPT® and HCPCS Code Description

| | |
|-------|--|
| 99473 | SMBP using a device validated for clinical accuracy and patient education/training and device calibration |
| 99474 | Separate self-measurements, collection of daily reports by the patient or caregiver to the healthcare provider, communication of BP readings and treatment plans |
| A4670 | Automated blood pressure device |
| A4663 | Blood pressure cuff only |

| | SMBP Service Codes | | | | | BP Device Codes | | | | | | |
|-------------|------------------------|----------------|---------|----------------|--------|--|----------------|------------------------------|---------|----------------|------------------------------|--------|
| | Provider Reimbursement | | | | | Durable Medical Equipment (DME) Fee Schedule | | | | | | |
| | 99473 | | 99474 | | Source | A4670 | | | A4663 | | | Source |
| | Covered | Amount Covered | Covered | Amount covered | | Covered | Amount Covered | Prior Authorization Required | Covered | Amount covered | Prior Authorization Required | |
| Alabama | | | | | ② | | | | | | | ② |
| Alaska | | | | | ② | ● | \$110.00 | | ● | Varies | | ② |
| Arizona | ● | \$11.27 | ● | \$15.40 | ② | ● | Varies | | ● | Varies | | ② |
| Arkansas | | | | | ② | ● | \$8.22 | | | | | ② |
| California | | | | | ② | ● | Varies | | ● | Varies | | ② |
| Colorado | | \$9.57 | | \$12.26 | ② | ● | \$72.45 | ○ | ● | \$21.49 | ○ | ② |
| Connecticut | | | | | ② | ● | \$65.00 | | ● | \$28.53 | | ② |
| Delaware | ● | \$15.84 | ● | \$12.76 | ② | ● | \$43.09 | | ● | \$16.76 | | ② |
| D.C. | | | | | ② | ● | \$103.93 | | ● | \$19.95 | | ② |

<https://www.ama-assn.org/system/files/smbp-coverage-medicaid-april-2022.pdf>



ISSUE BRIEF:

Opportunities in Medicaid: Improving cardiovascular health with self-measured blood pressure

April 2022

Hypertension, or high blood pressure, affects 1 in 3 people enrolled in Medicaid.¹ When uncontrolled, hypertension can result in heart attack, heart failure, stroke, and kidney disease.

Managing hypertension and the consequences of uncontrolled hypertension costs the U.S. an estimated \$131 billion each year. This includes not only the cost of health care services and medications, but loss of productivity from illness and premature death.² The cost of uncontrolled hypertension increases dramatically with each additional co-morbidity, with estimated individual health care costs ranging from \$5,500 to \$19,000 annually.³ Low income, non-pregnant adults on Medicaid disproportionately suffer from uncontrolled hypertension. Fortunately, hypertension can be controlled, and complications prevented through lifestyle changes and medication, especially when diagnosed early.

The only way to diagnose and monitor hypertension is through accurate blood pressure measurement. For many people, however, blood pressure measurements taken in a doctor's office differ greatly from those taken at home or otherwise outside of a clinical setting. For this reason, current clinical guidelines recommend^{4,5} the use of out-of-office blood pressure measurements for confirming a diagnosis of hypertension, adjusting medications, and assessing blood pressure control.

Using validated home blood pressure devices, patients can regularly monitor blood pressure at different points in time and report their measurements directly to their physician. Self-measured blood pressure (SMBP) is a more accurate predictor of cardiovascular events and mortality than office-measured blood pressure, and scientific evidence has shown that SMBP, when combined with clinical support, can improve blood pressure control.^{6A}

Effective SMBP requires the use of a validated automated blood pressure device, patient education on proper use of the device, and physician interpretation of readings to make diagnosis and treatment decisions. Medicaid coverage for devices and services, however, is often insufficient and remains a key barrier to the adoption of SMBP. With an estimated nine million low income, non-pregnant adults on Medicaid living with hypertension, there is a significant opportunity to improve health outcomes and avert costly and preventable complications by ensuring that SMBP services, validated blood pressure devices, and necessary accessories are adequately covered by Medicaid programs.⁸

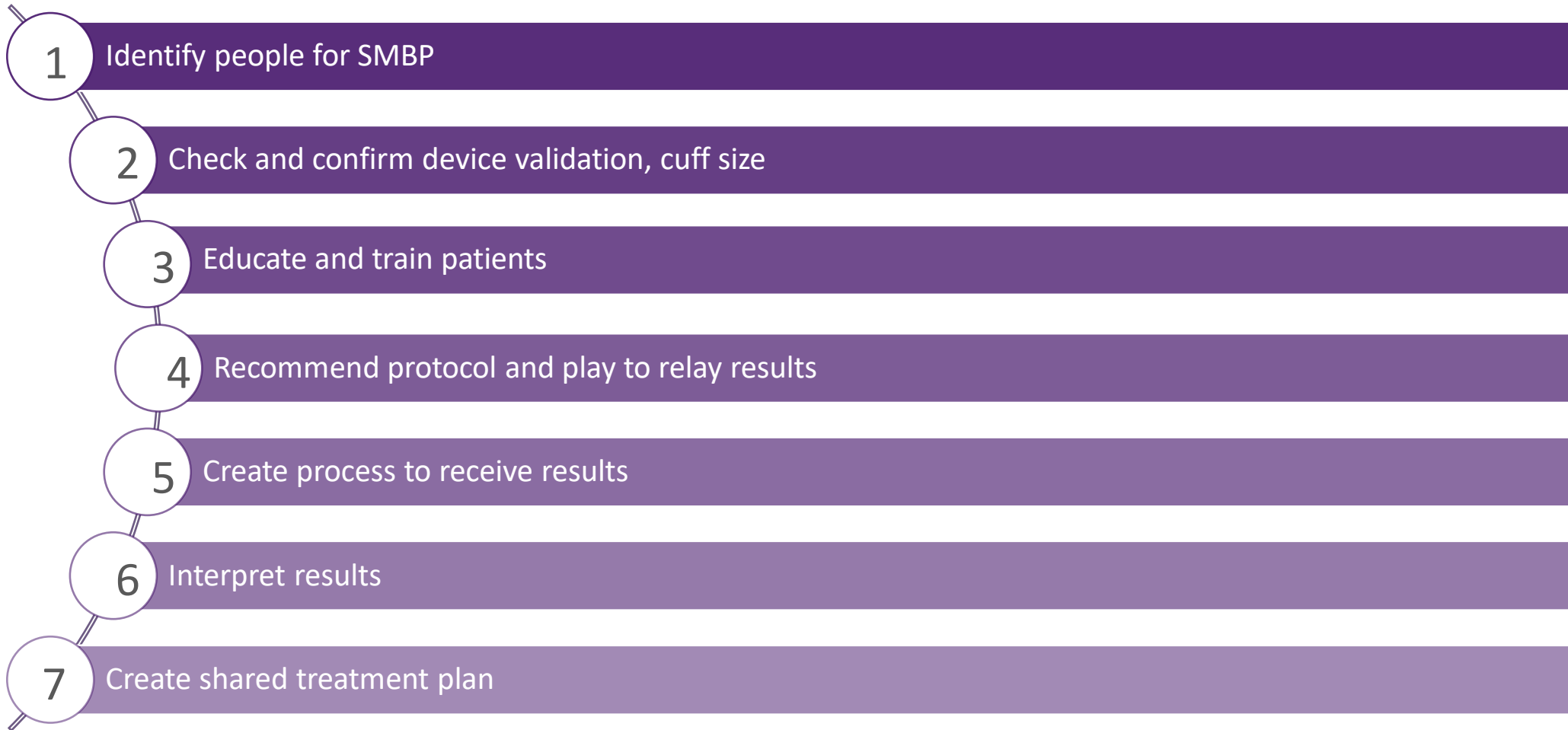
Opportunities to impact blood pressure control rates in the Medicaid population:

- Expand coverage for SMBP clinical services to encourage provider adoption and utilization
 - Include SMBP clinical services (CPT® codes 99473, 99474) in the Medicaid provider fee schedule as covered benefits
- Expand coverage for validated automated blood pressure devices for home use to enable beneficiaries to do SMBP
 - Include validated automated blood pressure devices (A4670) and an appropriately sized cuff (A4663) in the Medicaid durable medical equipment (DME) fee schedule as covered benefits
- Address health inequities by ensuring every member has access to a validated device and an appropriately sized blood pressure cuff as necessary
 - Remove patient exclusions, eligibility requirements, and prior authorization for an automated device and an appropriately sized cuff (medical necessity reviews should not be required if there is a physician order)
 - Ensure adequate reimbursement for validated automated blood pressure devices and clinical services

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7 Steps for using SMBP to lower BP

Guide for clinicians and practices to implement SMBP for their patients:



[View the guide and relevant tools and resources at **www.ama-assn.org/smbp-guide**](http://www.ama-assn.org/smbp-guide)



Physicians' powerful ally in patient care

Updates





Maryland Self-Monitored Blood Pressure Campaign

HB 534: Requiring, beginning January 1, 2023, the Maryland Medical Assistance Program to provide coverage for self-measured blood pressure monitoring.

- Strong partnerships
- Key Messaging: Making the Data Approachable
- Key Volunteers: Doctors, Social Workers, Nurses
- Overcame Fiscal Note Challenges



CHOOSING A HOME BLOOD PRESSURE MONITOR FOR YOUR PRACTICE AT-A-GLANCE COMPARISON



LEGEND: **Y** = YES **N** = NO

DEVICE FEATURES

DATA/TECHNOLOGY FEATURES

| Device Manufacturer | Device Name | Retail Price (Per Device) | On U.S. Validated Device Listing | Upper Arm Device | Large Cuff Size | XL Cuff Size | AC Adapter Available | Number of Users | Memory Storage Capacity (measurements per user) | Averaging Capability | Bluetooth-Enabled Self-Reporting | Integrates with Vendor-Neutral Smartphone App | Cellular Data Transmission Option |
|---------------------|---|------------------------------|----------------------------------|------------------|-------------------------------------|--------------|----------------------|-----------------|--|----------------------|----------------------------------|---|-----------------------------------|
| | | | | | (arm circumference range in inches) | | | | | | | | |
| | | | | | | | | | | | | | |
| A & D Medical | Essential Blood Pressure Monitor (UA - 611) | \$30 | * | Y | 8.6 - 16.5 and 12.2 - 17.7 | N | Y | 1 | 15 | N | N | N | N |
| A & D Medical | Essential Blood Pressure Monitor (UA-651) | \$35 | * | Y | 8.6 - 16.5 and 12.2 - 17.7 | N | Y | 1 | 30 | N | N | N | N |
| A & D Medical | Manual Inflate Blood Pressure Monitor (UA-705V, UA-705VL) | \$53 | Y | Y | 9.4 - 14.2 and 14.2 - 17.7 | N | N | 1 | 30 | N | N | N | N |
| A & D Medical | Wireless Blood Pressure Monitor (UA-651BLE) | \$61 | * | Y | 8.6 - 16.5 and 12.2 - 17.7 | N | Y | 1 | 30 | Y | Y | Y | N |
| A & D Medical | Premium Blood Pressure Monitor (UA-767F) | \$62 | * | Y | 8.6 - 16.5 and 12.2 - 17.7 | N | Y | 4 | 60 | N | N | N | N |
| A & D Medical | Talking Blood Pressure Monitor (UA-1030T) | \$83 | Y | Y | 9 - 14.6 and 12.2 - 17.7 | N | Y | 1 | 90 | Y | N | N | N |
| A & D Medical | Ultraconnect Wireless Blood Pressure Monitor (UA-1200BLE) | \$90 | Y | Y | 8.6 - 16.5 | N | Y | 5 | 100 | Y | Y | N | N |
| BodyTrace | Cellular Blood Pressure Monitor (BT105) | \$80 | Y | Y | 8.75 - 16.5 | N | N | 1 | 256 | N | N | Y | Y |
| CareSimple | BT105 | \$80 | Y | Y | 8.75 - 16.5 | N | N | 1 | 256 | N | N | Y | Y |
| ForaCare | Fora TN'G BP | \$140 | Y | Y | 9.4 - 16.9 | N | N | 1 | 200 | Y | Y | N | N |
| Greater Goods | Greater Goods BP | \$65 | Y | Y | 8.6 - 16.5 | N | Y | 2 | 60 | N | Y | N | N |
| Hillrom-Welch Allyn | Welch Allyn Home Blood Pressure Monitor 1700 Series | \$100 | Y | Y | 8.75 - 16.5 | 15.7 - 21.2 | Y | 1 | 99 | N | Y | Y | N |
| Microlife | WatchBP Home | \$138 | Y | Y | 12.6 - 16.5 | 12.6 - 20.5 | Y | 1 | 250 | N | N | N | N |
| Microlife | WatchBP Home A BT (with Atrial Fibrillation detection) | \$150 | Y | Y | 12.6 - 16.5 | N | Y | 1 | 250 | Y | Y | N | N |
| Microlife | WatchBP Home A (with Atrial Fibrillation detection) | \$173 | Y | Y | 12.6 - 16.5 | N | Y | 1 | 250 | Y | N | N | N |
| Microlife | WatchBP Home N (AF detection with nocturnal mode) | \$207 | Y | Y | 12.6 - 16.5 | N | Y | 1 | 250 | Y | N | N | N |
| Omron | Bronze Upper Arm | \$39 | Y | Y | 9 - 17 | N | Y | 1 | 14 | N | N | N | N |
| Omron | BP6100 | \$42 | Y | N | N/A | N/A | N | 1 | 60 | Y | N | N | N |
| Omron | 3 Series Upper Arm | \$50 | Y | Y | 9 - 17 | N | Y | 1 | 14 | N | N | N | N |
| Omron | Silver Wireless | \$51 | Y | Y | 9 - 17 | N | Y | 1 | 80 | Y | Y | Y | N |
| Omron | 5 Series - Upper Arm | \$65 | Y | Y | 9 - 17 | N | Y | 2 | 60 | Y | N | Y | N |

NOTES ON DEVICE FEATURES:

- **Retail Price:** Retail price is the cost for a single device and does not reflect discounts that may be available through bulk purchasing. Quality devices, especially those with Bluetooth capability, can be expensive and a financial barrier for some patients. Consider how cost may impact the type or number of devices purchased for a loaner program vs. desired features.
- **On the US VDL:** [The US Blood Pressure Validated Device Listing \(www.validatebp.org\)](http://www.validatebp.org) is a website maintained by the American Medical Association listing blood pressure measurement devices that have been validated for clinical accuracy through an independent review process.
- **Upper Arm Device:** Upper arm devices provide more accurate measurements than wrist devices, which are known to be less accurate due to user technique related errors. National organizations only recommend using wrist cuffs with patients who cannot use an upper arm cuff due to arm circumference or disability.
- **Cuff size:** Using a blood pressure cuff that is too large or too small can result in inaccurate blood pressure readings. Standard/Large cuffs fit arm sizes between 8.75" – 16.5" in circumference. Extra-large (XL) cuffs fit arm sizes >16". Some XL cuffs have an upper limit of 20", others 21.25", and others close to 24". These differences may be important depending on one's patient population; 50% of health center patients required XL cuff sizes among the 10 health centers that participated in the NACHC Accelerating SMBP project. Choosing a home blood pressure device with a XL cuff option may support more patients benefiting from its use.
- **AC Adaptor:** An AC adapter allows the device to be charged and/or operated by plugging in to an electrical outlet vs. solely on batteries. Batteries can be expensive, require periodic replacement, and could expire when a patient has the device loaned out.
- **Number of Users:** The option to track additional users may be helpful for households with multiple patients using a home blood pressure device. It reduces the need to purchase or loan multiple devices to one household for the patients to measure their blood pressure.
- **Memory Storage Capacity:** This feature is most important for devices without Bluetooth or cellular data transmission capabilities. Blood pressure measurements that are not transmitted electronically may need to be saved in the device's memory storage to share with the care team at the next visit. Memory storage is also a benefit in devices that electronically transmit data in case of a transmission failure (provides a record of recorded BP measurements). SMBP protocols for clinical decision-making require two measurements, AM and PM for up to seven days (28 readings); thus, if using a non-Bluetooth/cellular device as part of an SMBP protocol, consider a storage capacity of at least 30 measurements. Most Bluetooth-enabled devices allow for an unlimited number of measurements to be stored in the app on the user's smartphone.
- **Averaging Capability:** Averaging means that the device takes multiple blood pressure measurements, usually two or three, during a single session and averages these measurements into one value. Blood pressure measurements can fluctuate for various reasons related to technique, a patient feeling anxious, or physiologic variability. Averaging capability helps to balance potential outlier readings for a better assessment of the patient's blood pressure levels. Mobile apps may also allow for averaging over the last 7 or 30 days. An app that allows for the averaging of multiple days of measurements eliminates the need for manual calculations by the care team.

NOTES ON DATA/TECHNOLOGY FEATURES:

- **Bluetooth-enabled Self-reporting:** Bluetooth allows for short-range data transfer between devices. A device with Bluetooth-enabled self-reporting transmits blood pressures measurements electronically directly from the device over Bluetooth to a mobile app, which transmits the measurements using cellular data or Wi-Fi (Internet connection) to a monitoring dashboard, and/or clinical portal. Pros are that practices can monitor patterns of patient blood pressure data and patients cannot manipulate their blood pressure measurements. Cons are that Bluetooth devices require an app to send data via Wi-Fi or cellular networks; some may need broadband or high-speed internet access to connect or stay connected with the user's smartphone, which may not be available in rural areas or affordable for all patients. Devices that directly transmit data could inadvertently transmit measurements that do not belong to the patient (e.g., if a family member uses and forgets to switch the user).
- **Apps:** Most Bluetooth-enabled home blood pressure monitors connect via Bluetooth to a smartphone app. These apps allow the user to see charts of their own blood pressure measurements and also may transmit the data to a monitoring dashboard/clinical portal at a practice. Most vendors sell devices with a proprietary app that must be used with their product. However, some devices also have an application programming interface (API) that allows for data to flow into a vendor-neutral or non-branded general app, e.g., Sphygmo. This may be important if a practice chooses multiple brands of devices and wants all of their patient data to be consolidated into one app and one monitoring dashboard/clinical portal. In this case, consider a device that will also work with a vendor-neutral app.
- **Monitoring Dashboards/Clinical Portals:** Most Bluetooth-enabled home blood pressure monitors connect wirelessly to a mobile app, which, in turn, transmits data to a monitoring dashboard/clinical portal via a cellular data or a Wi-Fi network. These dashboards/portals allow care teams access to patient home blood pressure measurements between visits. Practices can reach out quickly to patients to follow up if data are not being received as expected, to titrate medications telephonically, or to monitor values that are very high or low. A vendor-specific dashboard/portal will only receive data from their brand of devices. Some dashboards can be exported into different file types, e.g., .pdf, .xls, .xlsx, and .csv, and some can be configured to integrate data directly into a population health management or EHR system.
- **LTE/cellular network connected:** Cellular service can be beneficial for users in areas without broadband Wi-Fi or areas with satellite Wi-Fi service that is not always reliable. Pros are that cellular service is already programmed and does not require additional setup, syncing, or apps that may pose a challenge to the user. Cons are that cellular home blood pressure devices may require the purchase of a remote patient management hub or a subscription to a cellular data plan by the practice/patient/insurer.

Resources



Additional Hypertension and SMBP Resources

Tools

- **National Forum resource Mid-Year Virtual Convening: Paying Attention to Hypertension” Spotlight on Self Measured Blood Pressure Monitoring** - Session Recordings, Transcripts, and Digital Graphics for the Call to Action at <https://www.nationalforum.org/mid-year-virtual-convening-2022/> - to
- **Improving Hypertension Control and Cardiovascular Health: An Urgent Call to Action for Nursing.** Hannan et al. (2022). <https://doi.org/10.1111/wvn.12560>
- **How Do We Jump-Start Self-measured Blood Pressure Monitoring in the United States? Addressing Barriers Beyond the Published Literature.** Wall et al. (2022) <https://doi.org/10.1093/ajh/hpab170>
- [Remote Patient Monitoring: What Your Health Center Needs to Know](#)
- **Community Clinic Association of Los Angeles County: FQHC RPM Toolkit** <https://ccalac.org/wordpress/wp-content/uploads/FQHC-RPM-Toolkit-v4-with-links.pdf>



Videos



Addressing Challenges and Barriers to Self Measured Blood Pressure monitoring (SMBP) Implementation

May 11, 2022

Vision: Healthy Communities, Healthy People

[Addressing Challenges and Barriers to Self Measured Blood Pressure Monitoring \(SMBP\) Implementation](#)

Additional Resources from the AMA

Tools

- SMBP Recording Log (English) [SMBP Recording Log - English](#)
- SMBP Recording Log (Spanish) [SMBP Recording Log – Spanish](#)
- SMBP Coverage Insights:
Medicaid: <https://www.ama-assn.org/system/files/smbp-coverage-medicaid-may-2022.pdf>

Videos

- AMA SMBP Video (English) → [SMBP Training Video - English](#)
- AMA SMBP Video (Spanish) → [SMBP Training Video – Spanish](#)
- RTP SMBP Video (English) → [Release The Pressure - SMBP Video - English](#)
- RTP SMBP Video (Spanish) → [Release The Pressure - SMBP Video - Spanish](#)




CDC Safety and Promotion Team: Hypotension and Fall Prevention Resources

- [Postural Hypotension What it is & How to Manage it \(cdc.gov\)](#)
- [CDC STEADI: Best Practices for Developing an Inpatient Program to Prevent Older Adult Falls after Discharge](#)
- [Steady-Coordinated-Care-Plan.pdf \(cdc.gov\)](#)
- [Fact Sheet Safe Medication Review Framework \(cdc.gov\)](#)



Upcoming Hypertension-Related Events

| Date/Time | Title | Host | Live Audience | URL |
|---|---|-----------|---|--|
| June 2022 12:00 – 1:00pm ET | AHA National Hypertension Control Initiative (NHCI) EHR/SMBP Software Functionality Workshops June 14: eClinical Works (ECW) June 16: NextGen June 23: EPIC June 30: Athena & Greenway | AHA | All partners Target Audience: Informaticist, Health IT Specialist, and QI Champion | June 14: Registration Link June 16: Registration Link June 23: Registration Link June 30: Registration Link |
| July 20, 2022 3:00-3:45pm ET | Million Hearts Learning Lab: Multidisciplinary Approaches to Tobacco Cessation: New Models, Strategies, and Workflows | CDC/NACHC | All partners | Registration Link |
| September 8, 2022 1:00-2:00pm ET | Million Hearts® SMBP Forum: Maternal Health and SMBP | CDC/NACHC | All partners | Registration Link |
| September 27, 2022 12:00pm-1:30pm CT 1:00pm-2:30pm ET | AHA National Hypertension Control Initiative (NHCI) Core Curriculum Calendar of Events: SMBP Journey Forum | AHA | NHCI award recipients | NHCI Community Health Center Hub |

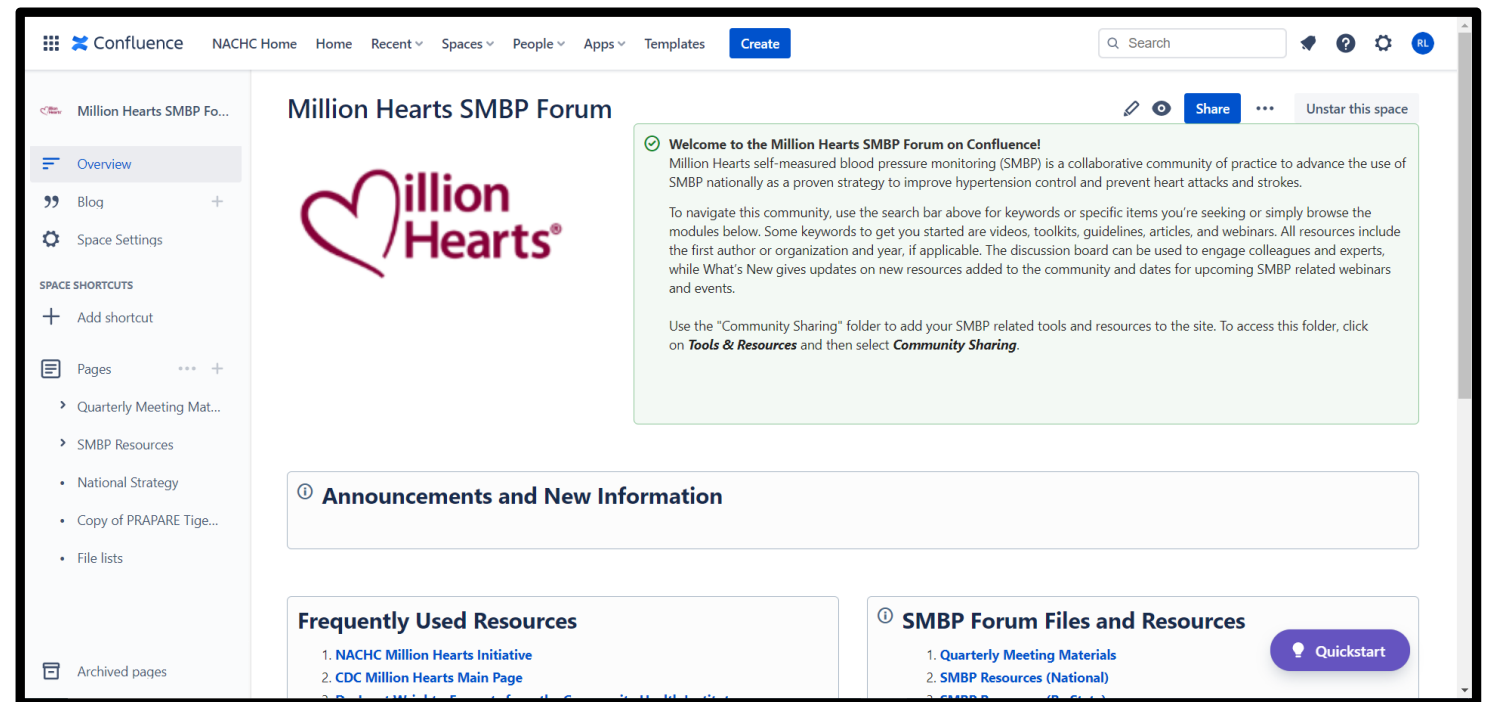
 = Events that are not specific to hypertension, but may be of interest to SMBP Forum members

SMBP Forum Online Portal!

Confluence Features

- One-time login required for one click access.
- Easy access to folders
- Calendar of events
- Upload resources to share
- Access past SMBP Forum recordings/materials

Confluence Portal Snapshot



Web link:

<https://nachc.atlassian.net/wiki/external/1961787668/YzY5ZjU1YjQ0ODU1NGQzNWlwNGFiOGE4YTRhM2Y5NzI>

We Want to Hear From You!

Do you have
resources or updates
to share with the
Million Hearts® SMBP
Forum?

Please send
information to
[MillionHeartsSMBP@
nachc.org](mailto:MillionHeartsSMBP@nachc.org)



Thank You!

The next SMBP Forum will be held September 8, 2022.

Register at http://bit.ly/SMBP_Registration

Please complete the post call survey:

https://nachc.co1.qualtrics.com/jfe/form/SV_5uOIUuZEowO1Yto

Send questions or comments to

MillionHeartsSMBP@nachc.org.

