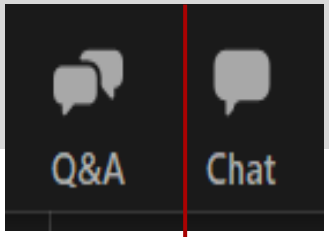
Evolving SMBP Programs: Technology, Operations, & Sustainability

September 22, 2021

TARGET:BP™ | American Heart Association. | AMA



Use the Q&A button to submit questions.

Upvote your favorite questions to bring them toward the top of the list for answering at the end of the Webinar

Watch for resource links in Chat.

Feel free to offer comments.

Agenda

- Welcome
- SMBP Overview & Program Design
- Devices & Technology
- Coverage & Reimbursement
- Panel Presentations
- Panel Discussion / Q&A
- Closing & Evaluation

Learning Objectives

- DESIGN | Define key decisions when planning and implementing an SMBP program including clinical roles, operational workflow, and device management

- TECHNOLOGY | List key considerations when evaluating devices, apps, and data platforms to relay SMBP measurements from patients to providers

- SUSTAINABILITY | Appreciate BP device coverage and provider reimbursement payor landscape, including a comparison of RPM and SMBP coding and billing

If you have seen 1 SMBP program…you have seen 1 SMBP program…

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Poll #1

How would you describe your organization's stage of SMBP program adoption?

A. Considering, but not started
B. Actively planning
C. Implementing a pilot or initial stage
D. Scaling
E. Fully implemented
F. Unsure

SMBP Overview

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Indications for & benefits of SMBP

Improve the accuracy of diagnosing hypertension

- Out-of-office BP measurements are recommended to **confirm the diagnosis of hypertension**.
- Rule-out **Masked Hypertension or White-Coat Hypertension**

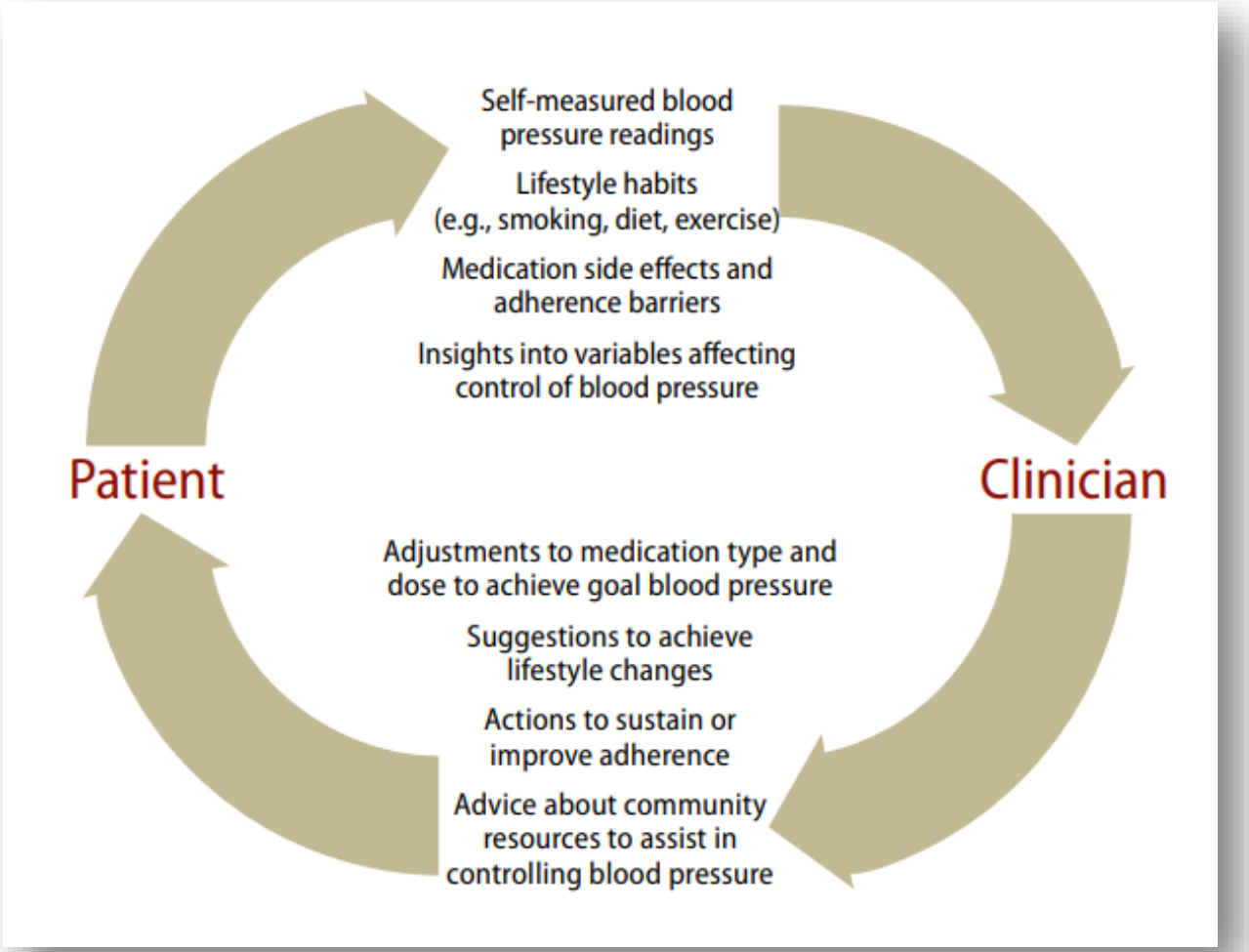
Better manage hypertension

- Recommended for titration of BP-lowering medication, in conjunction with telehealth counseling or clinical interventions.
- Used before subsequent office visits to determine if their blood pressure is controlled.

Help patients adhere to pharmacological treatment

- Patients who engage in SMBP may be more likely to take action to improve their health in other ways.

Critical cycle of SMBP



Centers for Disease Control and Prevention. Self-Measured Blood Pressure Monitoring: Actions Steps for Clinicians. Atlanta, GA: Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2014.

Challenges to successful use of SMBP

For people using SMBP

- Lack of understanding of benefits / language in tools
- Measurement frequency
- Out-of- pocket costs and transportation
- Access to and use of technology / sharing results

For providers and clinical care teams

- Inaccuracy of devices
- Workload (training patients, averaging results)
- Lack of reimbursement for devices purchased / services

For health systems/health centers

- Procuring validated devices with multiple cuff sizes
- Systems to transfer/receive SMBP data
- Support for cointerventions
- Financial incentives

Slide courtesy of Michael Rakotz, MD, AMA

SMBP Program Design

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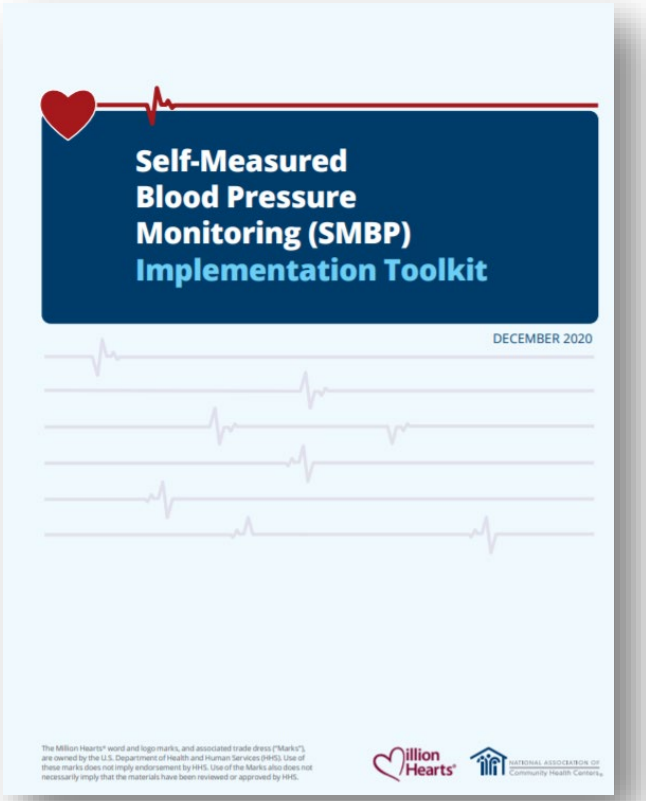
Program design



https://www.nachc.org/wp-content/uploads/2020/12/SMBP-Toolkit_FINAL.pdf

SMBP
IMPLEMENTATION TOOLKIT

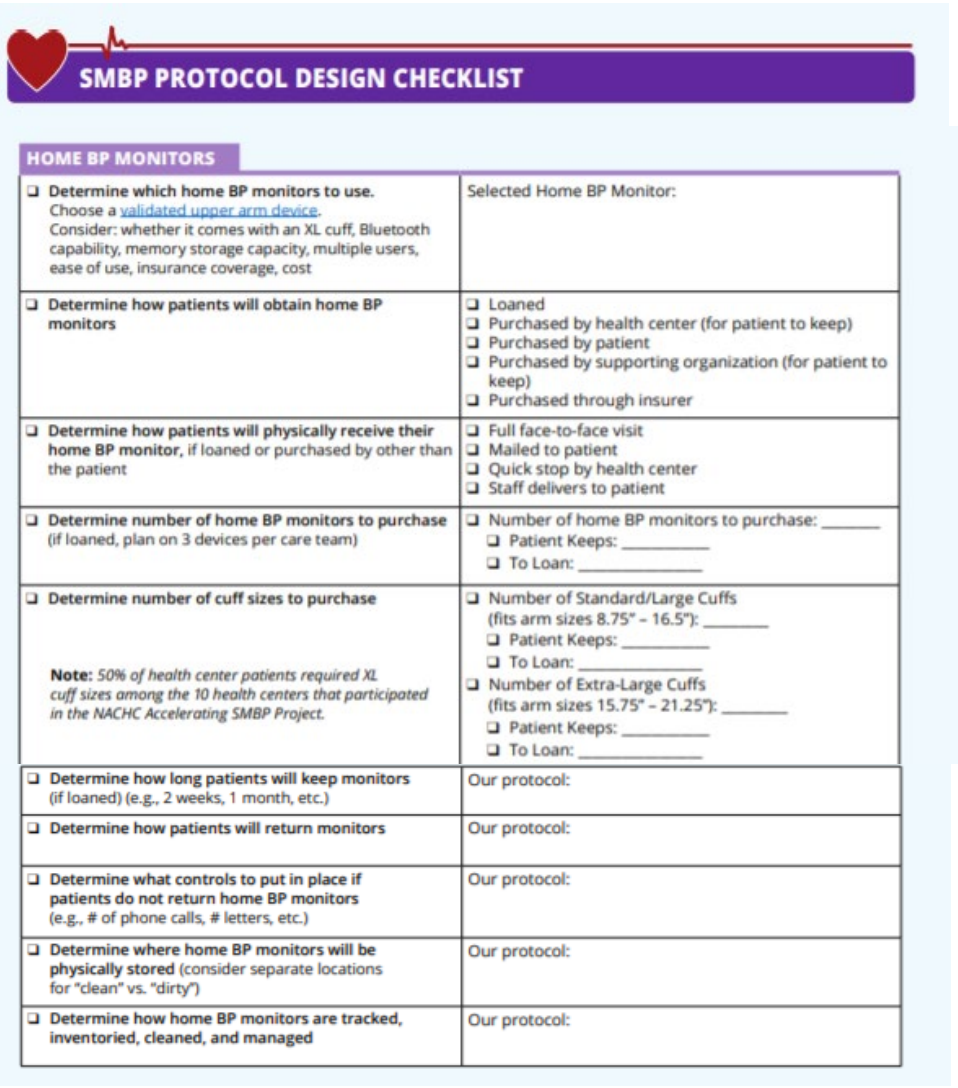
PURPOSE:
This toolkit is designed to help organizations implement self-measured blood pressure monitoring (SMBP) successfully into their care processes and workflows.

ORGANIZATION:
It is comprised of four parts that will help organizations determine their goals and priority populations, align their SMBP patient training approach to their practice environment, consider SMBP tasks by role—and particularly how many can be accomplished by a non-clinician, and ultimately develop a protocol that will help organizations implement SMBP using a comprehensive, practical, step-by-step approach based on the experiences and lessons learned of other implementing organizations and in accordance with the June 2020 Self-measured Blood Pressure Monitoring at Home: A Joint Policy Statement from the American Heart Association and American Medical Association.

INSTRUCTIONS:

1. Complete Determining Your SMBP Goals and Priority Populations
2. Work through the SMBP Protocol Design Checklist
3. Use the SMBP Tasks by Role and Aligning your SMBP Patient Training Approach to your Practice Environment diagrams to adapt your SMBP care model to your patients' preferences, staffing capacity, other clinical initiatives or priorities, and local environment.

Program design



SMBP PROTOCOL DESIGN CHECKLIST

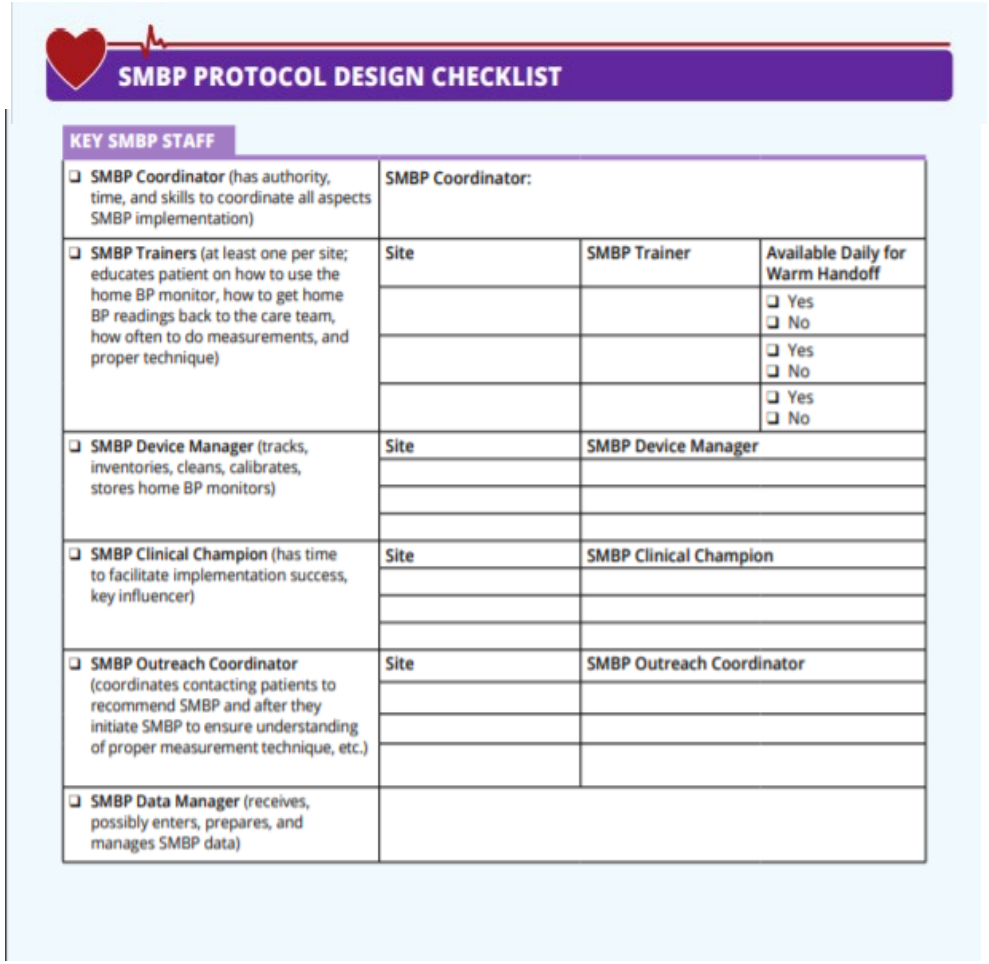
HOME BP MONITORS

❑ **Determine which home BP monitors to use.** Choose a validated upper arm device. Consider: whether it comes with an XL cuff, Bluetooth capability, memory storage capacity, multiple users, ease of use, insurance coverage, cost	Selected Home BP Monitor:
❑ **Determine how patients will obtain home BP monitors**	❑ Loaned ❑ Purchased by health center (for patient to keep) ❑ Purchased by patient ❑ Purchased by supporting organization (for patient to keep) ❑ Purchased through insurer
❑ **Determine how patients will physically receive their home BP monitor,** if loaned or purchased by other than the patient	❑ Full face-to-face visit ❑ Mailed to patient ❑ Quick stop by health center ❑ Staff delivers to patient
❑ **Determine number of home BP monitors to purchase** (if loaned, plan on 3 devices per care team)	❑ Number of home BP monitors to purchase: _____ ❑ Patient Keeps: _____ ❑ To Loan: _____
❑ **Determine number of cuff sizes to purchase** **Note:** *50% of health center patients required XL cuff sizes among the 10 health centers that participated in the NACHC Accelerating SMBP Project.*	❑ Number of Standard/Large Cuffs (fits arm sizes 8.75" – 16.5"): _____ ❑ Patient Keeps: _____ ❑ To Loan: _____ ❑ Number of Extra-Large Cuffs (fits arm sizes 15.75" – 21.25"): _____ ❑ Patient Keeps: _____ ❑ To Loan: _____
❑ **Determine how long patients will keep monitors** (if loaned) (e.g., 2 weeks, 1 month, etc.)	Our protocol:
❑ **Determine how patients will return monitors**	Our protocol:
❑ **Determine what controls to put in place if patients do not return home BP monitors** (e.g., # of phone calls, # letters, etc.)	Our protocol:
❑ **Determine where home BP monitors will be physically stored** (consider separate locations for "clean" vs. "dirty")	Our protocol:
❑ **Determine how home BP monitors are tracked, inventoried, cleaned, and managed**	Our protocol:

Device Management Considerations:

- Select BP devices
- Loaned and/or given
- Distribution method
- # of devices
- Cuff sizes
- Duration of use
- Return process
- Storage
- Tracking
- Cleaning

Program design



SMBP PROTOCOL DESIGN CHECKLIST

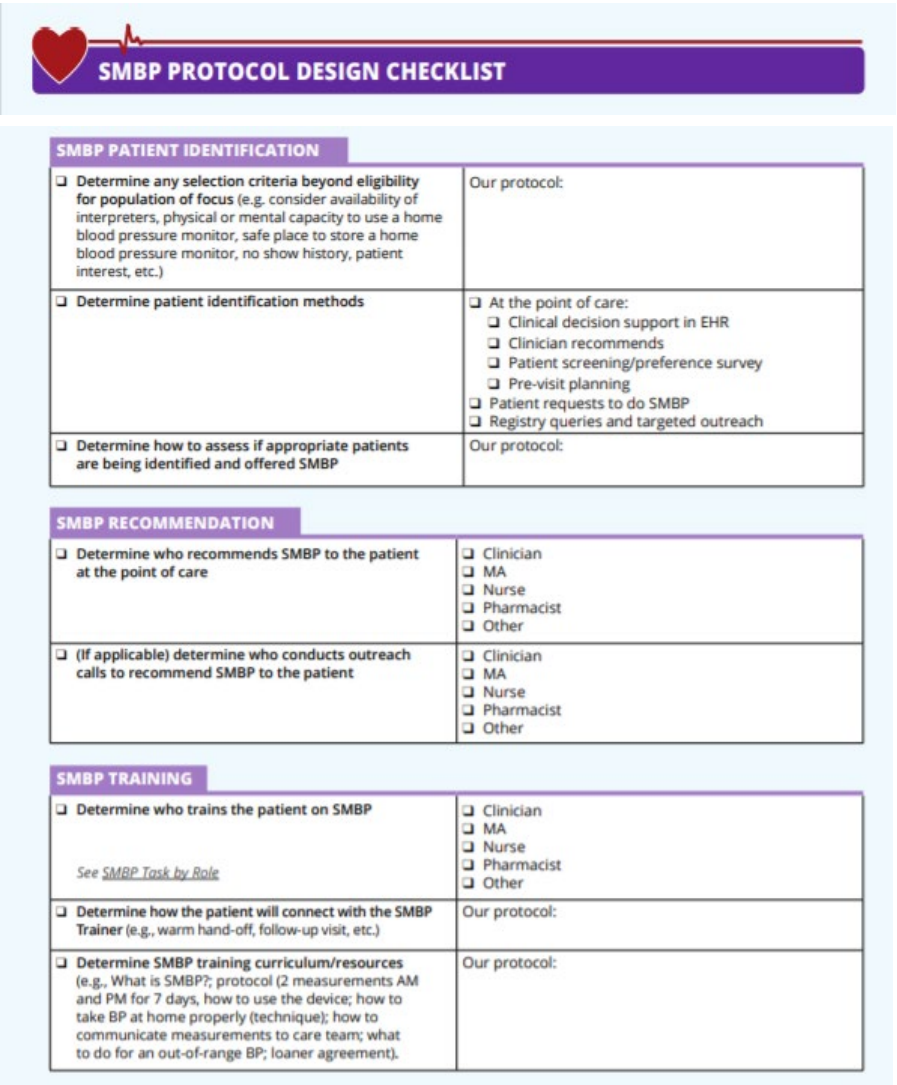
KEY SMBP STAFF

❑ **SMBP Coordinator** (has authority, time, and skills to coordinate all aspects SMBP implementation)	**SMBP Coordinator:**		
❑ **SMBP Trainers** (at least one per site; educates patient on how to use the home BP monitor, how to get home BP readings back to the care team, how often to do measurements, and proper technique)	**Site**	**SMBP Trainer**	**Available Daily for Warm Handoff**
			❑ Yes ❑ No
			❑ Yes ❑ No
			❑ Yes ❑ No
❑ **SMBP Device Manager** (tracks, inventories, cleans, calibrates, stores home BP monitors)	**Site**	**SMBP Device Manager**	
❑ **SMBP Clinical Champion** (has time to facilitate implementation success, key influencer)	**Site**	**SMBP Clinical Champion**	
❑ **SMBP Outreach Coordinator** (coordinates contacting patients to recommend SMBP and after they initiate SMBP to ensure understanding of proper measurement technique, etc.)	**Site**	**SMBP Outreach Coordinator**	
❑ **SMBP Data Manager** (receives, possibly enters, prepares, and manages SMBP data)			

Staffing Roles:

- Coordination
- Training
- Device management
- Clinical champion
- Outreach
- Data management

Program design



SMBP PROTOCOL DESIGN CHECKLIST

SMBP PATIENT IDENTIFICATION

❑ **Determine any selection criteria beyond eligibility for population of focus** (e.g. consider availability of interpreters, physical or mental capacity to use a home blood pressure monitor, safe place to store a home blood pressure monitor, no show history, patient interest, etc.)	Our protocol:
❑ **Determine patient identification methods**	❑ At the point of care: ❑ Clinical decision support in EHR ❑ Clinician recommends ❑ Patient screening/preference survey ❑ Pre-visit planning ❑ Patient requests to do SMBP ❑ Registry queries and targeted outreach
❑ **Determine how to assess if appropriate patients are being identified and offered SMBP**	Our protocol:

SMBP RECOMMENDATION

❑ **Determine who recommends SMBP to the patient at the point of care**	❑ Clinician ❑ MA ❑ Nurse ❑ Pharmacist ❑ Other
❑ **(If applicable) determine who conducts outreach calls to recommend SMBP to the patient**	❑ Clinician ❑ MA ❑ Nurse ❑ Pharmacist ❑ Other

SMBP TRAINING

❑ **Determine who trains the patient on SMBP** *See SMBP Task by Role*	❑ Clinician ❑ MA ❑ Nurse ❑ Pharmacist ❑ Other
❑ **Determine how the patient will connect with the SMBP Trainer** (e.g., warm hand-off, follow-up visit, etc.)	Our protocol:
❑ **Determine SMBP training curriculum/resources** (e.g., What is SMBP?; protocol (2 measurements AM and PM for 7 days, how to use the device; how to take BP at home properly (technique); how to communicate measurements to care team; what to do for an out-of-range BP; loaner agreement).	Our protocol:

Identify appropriate patients

- Clinical criteria
- Identification
- Appropriateness

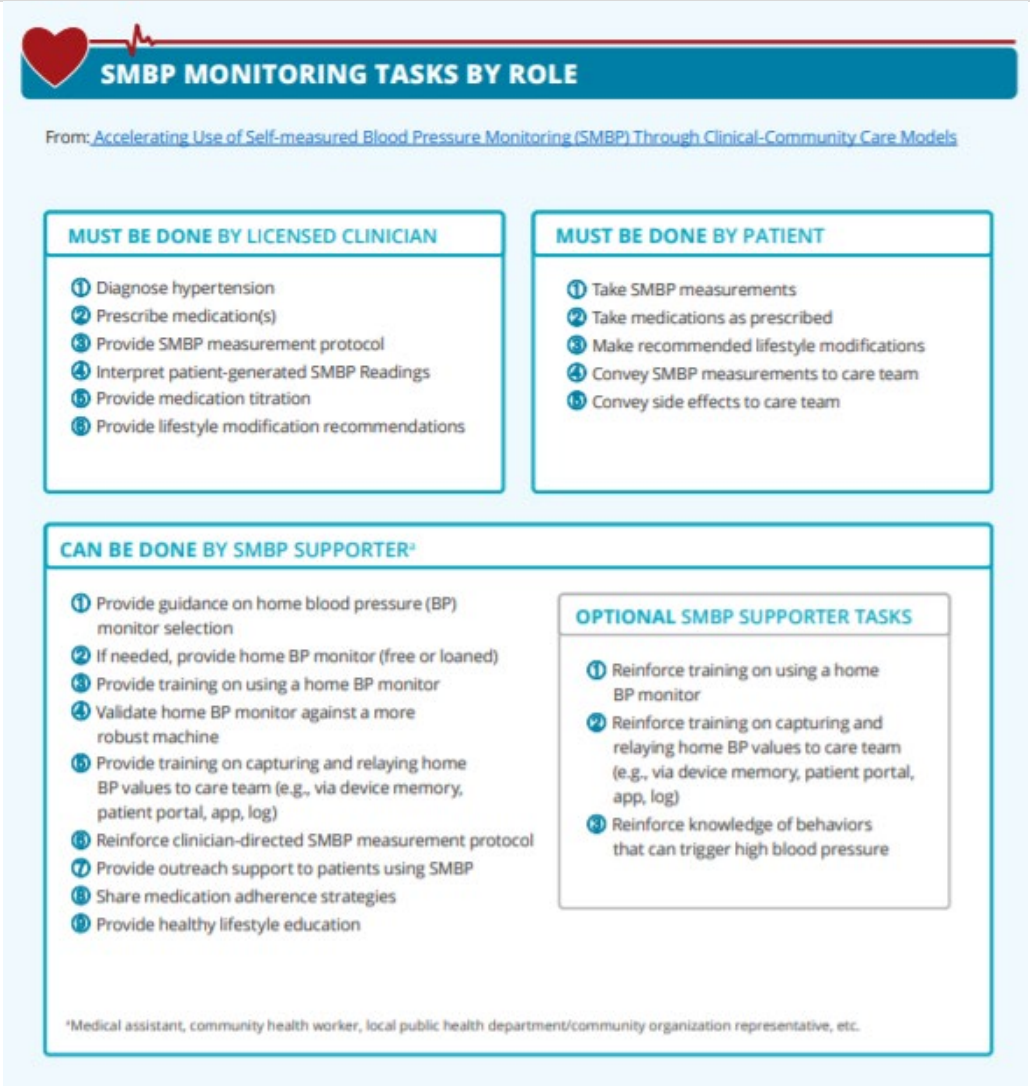
Recommend to patient

- Who/When/Where/How

Train patient

- Who/When/Where/How
- Curriculum/Resources

Program design



SMBP MONITORING TASKS BY ROLE

From: Accelerating Use of Self-measured Blood Pressure Monitoring (SMBP) Through Clinical-Community Care Models

MUST BE DONE BY LICENSED CLINICIAN

1. Diagnose hypertension
2. Prescribe medication(s)
3. Provide SMBP measurement protocol
4. Interpret patient-generated SMBP Readings
5. Provide medication titration
6. Provide lifestyle modification recommendations

MUST BE DONE BY PATIENT

1. Take SMBP measurements
2. Take medications as prescribed
3. Make recommended lifestyle modifications
4. Convey SMBP measurements to care team
5. Convey side effects to care team

CAN BE DONE BY SMBP SUPPORTER[a]

1. Provide guidance on home blood pressure (BP) monitor selection
2. If needed, provide home BP monitor (free or loaned)
3. Provide training on using a home BP monitor
4. Validate home BP monitor against a more robust machine
5. Provide training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log)
6. Reinforce clinician-directed SMBP measurement protocol
7. Provide outreach support to patients using SMBP
8. Share medication adherence strategies
9. Provide healthy lifestyle education

OPTIONAL SMBP SUPPORTER TASKS

1. Reinforce training on using a home BP monitor
2. Reinforce training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log)
3. Reinforce knowledge of behaviors that can trigger high blood pressure

[a]Medical assistant, community health worker, local public health department/community organization representative, etc.

Licensed Clinician

- Diagnose
- Prescribe / titrate
- Define protocol
- Interpret readings
- Recommend lifestyle change

Supporting Team

- Device training
- Device calibration
- Relay measurements
- Lifestyle education

Devices & Technology

- Overview
  - Devices
  - Platforms

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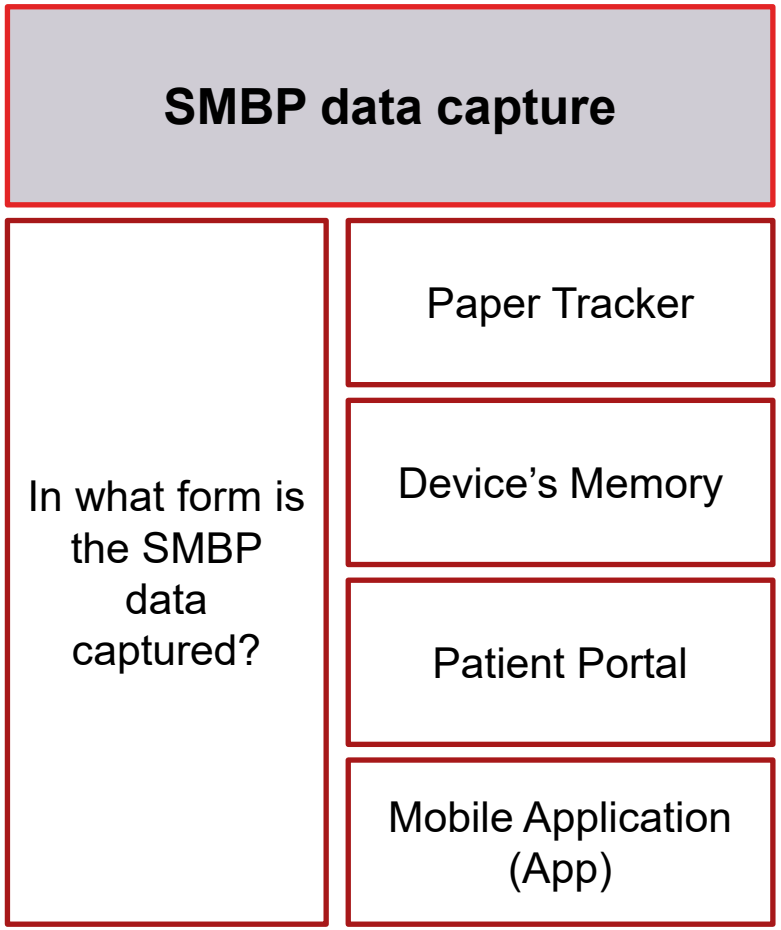
SMBP tracking and data exchange

- SMBP data capture
- Sharing data with provider/ clinical team
- Verification of SMBP protocol
- Presentation of SMBP data average

SMBP tracking and data exchange



Poll #2 / chat questions

SMBP data capture | Sharing data with provider/ clinical team | Verification of SMBP protocol | Presentation of SMBP data average

Poll: ***How are you currently asking or planning to ask your patients to capture SMBP data? (select all that apply)***

a) Paper Tracker
b) BP Device Memory
c) Patient Portal
d) Mobile Application (App)
e) Some other way
f) N/A or Unsure

Chat: ***Please share the name of the device, portal, and/or App***

SMBP tracking and data exchange

SMBP data capture	Sharing data with provider/clinical team	
Paper Tracker	How and what frequency is the data shared with the provider/clinical team? What form is the data made available?	Show provider/clinician during appointment
Device's Memory		Email measurements
Patient Portal		External dashboard
Mobile Application (App)		Incorporated within EHR

Poll #3 / chat questions

SMBP data capture	**Sharing data with provider/ clinical team**	Verification of SMBP protocol	Presentation of SMBP data average

Poll: ***How are patients sharing/ going to share data with providers? (select all that apply)***

a) Show provider during appointment
b) Email measurements
c) View on external dashboard (3rd party)
d) Incorporated into EHR
e) Some other way
f) N/A or Unsure

Chat: ***Please share the name of the device, portal, and/or App***

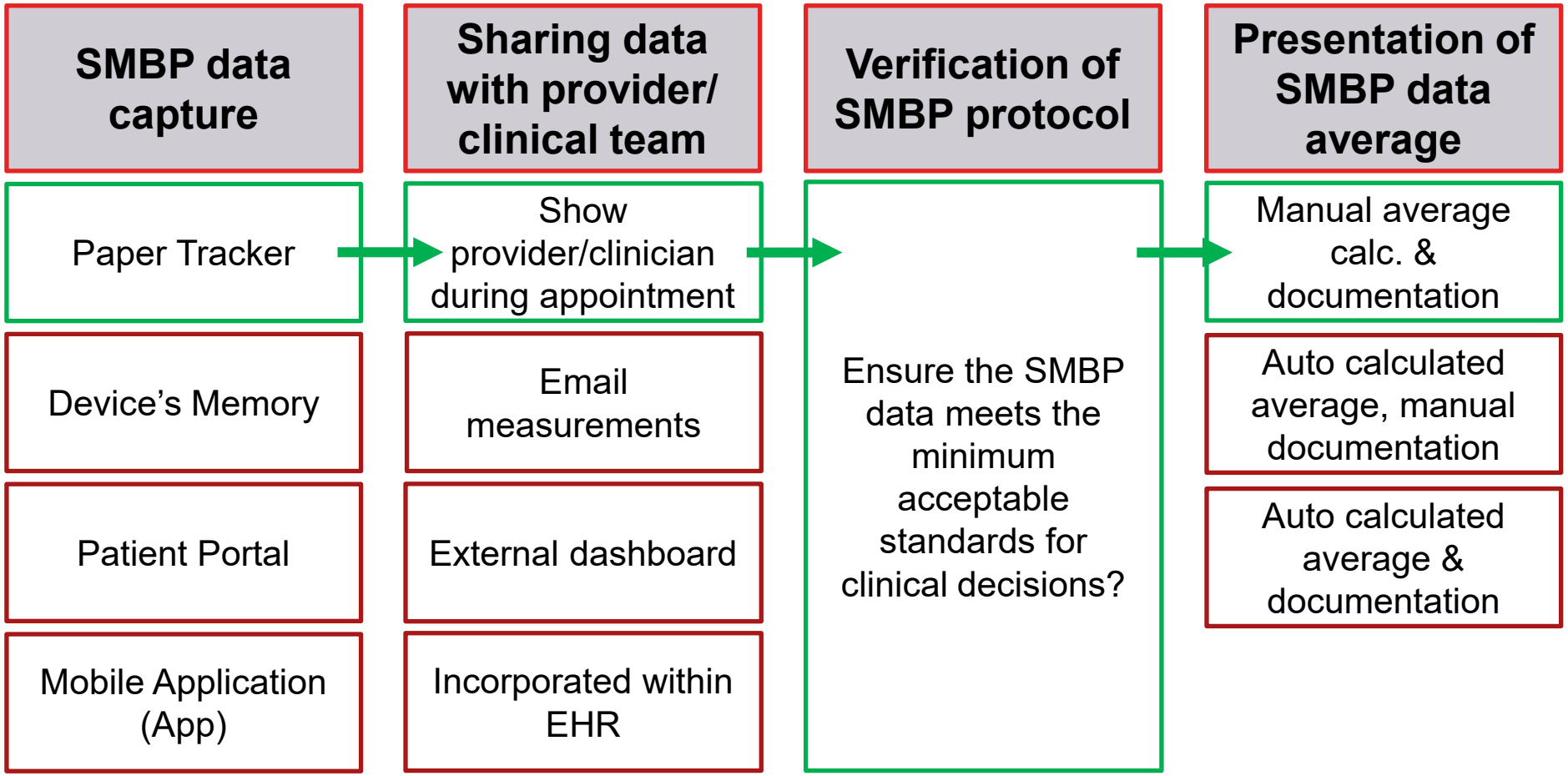
SMBP tracking and data exchange

SMBP data capture	Sharing data with provider/ clinical team	Verification of SMBP protocol
Paper Tracker	Show provider/clinician during appointment	Ensure the SMBP data meets the minimum acceptable standards for clinical decisions
Device's Memory	Email measurements	
Patient Portal	External dashboard	
Mobile Application (App)	Incorporated within EHR	

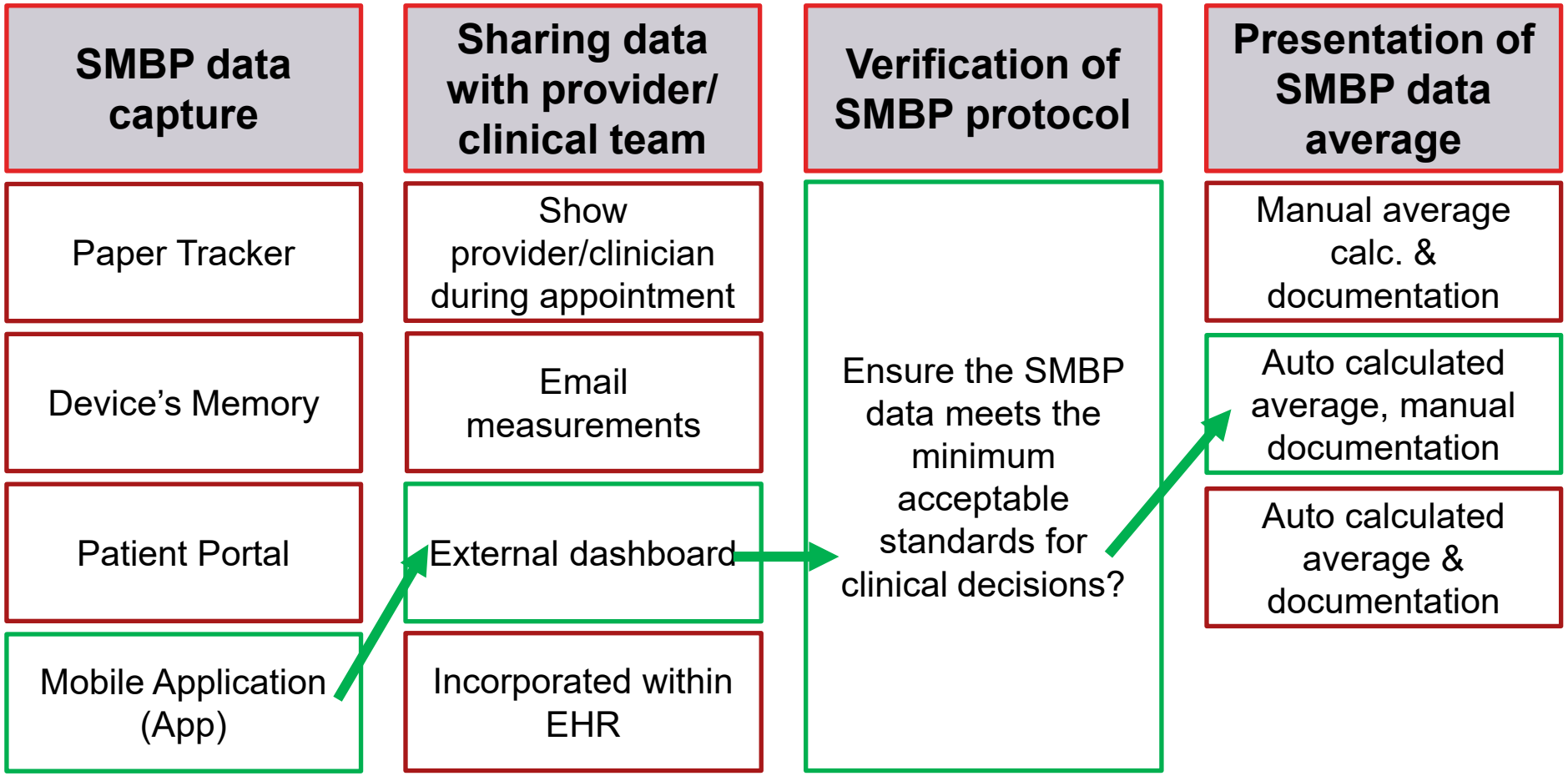
SMBP tracking and data exchange

SMBP data capture	Sharing data with provider/ clinical team	Verification of SMBP protocol	Presentation of SMBP data average	
Paper Tracker	Show provider/clinician during appointment	Ensure the SMBP data meets the minimum acceptable standards for clinical decisions	Is the data presented in a 7-day average or does this need to be calculated manually? Does the average need to be documented in the EHR?	Manual average calc. & documentation
Device's Memory	Email measurements			Auto calculated average, manual documentation
Patient Portal	External dashboard			Auto calculated average & documentation
Mobile Application (App)	Incorporated within EHR			

SMBP tracking and data exchange – low-tech



SMBP tracking and data exchange – high-tech



SMBP tracking and data exchange

May need to consider more than 1 tracking/data exchange pathway to meet the needs of all your patients.

SMBP data capture	Sharing data with provider/ clinical team	Verification of SMBP protocol	Presentation of SMBP data average
Paper Tracker	Show provider/clinician during appointment	Ensure the SMBP data meets the minimum acceptable standards for clinical decisions?	Manual average calc. & documentation
Device's Memory	Email measurements		Auto calculated average, manual documentation
Patient Portal	External dashboard		Auto calculated average & documentation
Mobile Application (App)	Incorporated within EHR		

Privacy and security

Consult with your legal team to ensure you are following federal and state laws and institutional policy

- What data is collected?
- How is the data stored?
- How/what data is securely transmitted?
- How is the data used?
- Who else has access to the data?

Note / Disclaimer: Every situation is different and nothing in the presentation should be construed as legal advice

BP Measurement Devices

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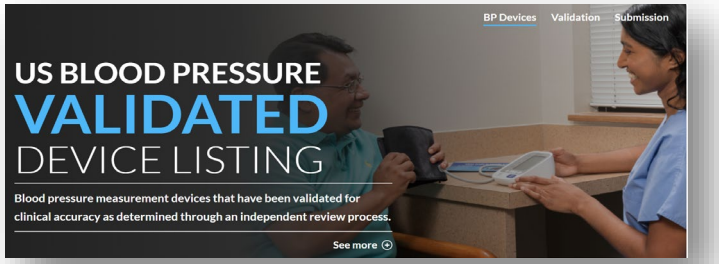
Equipment selection and care: Validation

If you have semi/fully automated devices, check if they are clinically validated on the new US Blood Pressure Validated Device Listing (VDL™)

https://www.validatebp.org/



Office (6), Kiosk (4),
Home (20), Ambulatory (2)
from 7 manufacturers
with more to come

Check back periodically to see more devices being reviewed and added soon

Other reliable sources:

- **Hypertension Canada:** https://hypertension.ca/hypertension-and-you/managing-hypertension/measuring-blood-pressure/devices/
- **Stride BP:** https://www.stridebp.org/bp-monitors
- **British and Irish Hypertension Society:** https://bihsoc.org/bp-monitors/

Device evaluation

NATIONAL ASSOCIATION OF Community Health Centers®

Million Hearts®

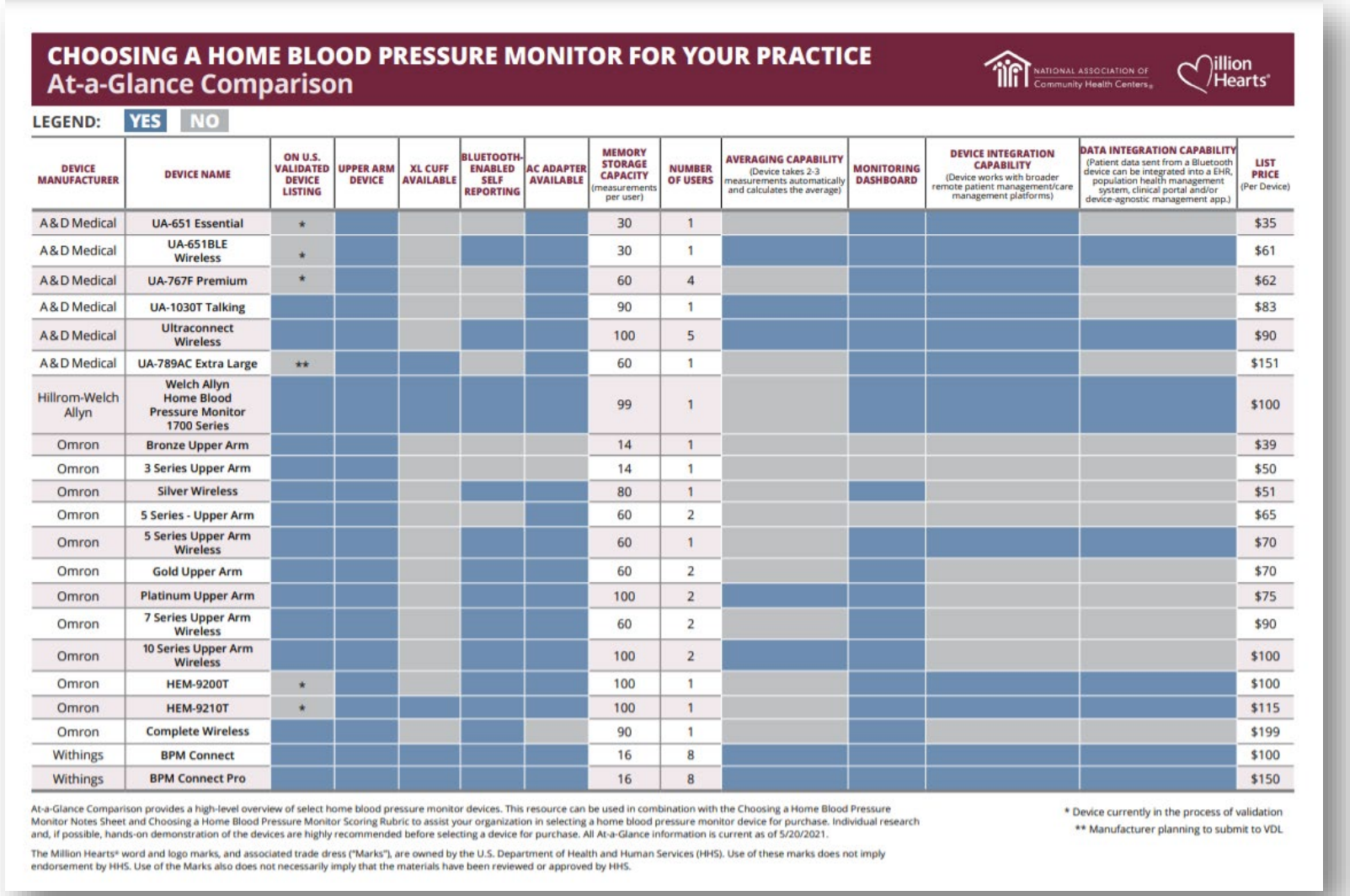
CHOOSING A HOME BLOOD PRESSURE MONITOR FOR YOUR PRACTICE

DEVICE MANUFACTURER	DEVICE NAME	CAPABILITIES OVERVIEW	DEVICE INTEGRATION CAPABILITY (Device works with broader remote patient management/care management platforms)	DATA INTEGRATION CAPABILITY (Patient data sent from a Bluetooth device can be integrated into a EHR, population health management system, clinical portal and/or device-agnostic management app.)	DATA SECURITY & HIPAA COMPLIANCE (Affiliated Apps and Clinical Portals)	EASE OF USE	TECHNICAL SUPPORT	COST & GROUP PURCHASING OPPORTUNITIES	OTHER
		•On US Validated Device List: •Upper Arm Device: •XL Cuff Available: •Bluetooth-Enabled Self Reporting: •AC Adapter Available: •Memory Storage Capacity: •Number of Users: •Averaging Capability: •Monitoring dashboard:	Notes:	Notes:	Notes:	Notes:	Notes:	Notes:	Notes:

- Manufacturer
- Device name / model
- Device integration capabilities
- Data integration
- Data security & HIPAA compliance
- Ease of use
- Technical support
- Cost & group purchasing

https://www.nachc.org/wp-content/uploads/2021/05/Home-BP-Monitor-Considerations-and-Comparisons_Notes-and-Rubric.xlsx

Device comparison



CHOOSING A HOME BLOOD PRESSURE MONITOR FOR YOUR PRACTICE
At-a-Glance Comparison

NATIONAL ASSOCIATION OF Community Health Centers® | Million Hearts®

LEGEND: YES NO

DEVICE MANUFACTURER	DEVICE NAME	ON U.S. VALIDATED DEVICE LISTING	UPPER ARM DEVICE	XL CUFF AVAILABLE	BLUETOOTH-ENABLED SELF REPORTING	AC ADAPTER AVAILABLE	MEMORY STORAGE CAPACITY (measurements per user)	NUMBER OF USERS	AVERAGING CAPABILITY (Device takes 2-3 measurements automatically and calculates the average)	MONITORING DASHBOARD	DEVICE INTEGRATION CAPABILITY (Device works with broader remote patient management/care management platforms)	DATA INTEGRATION CAPABILITY (Patient data sent from a Bluetooth device can be integrated into a EHR, population health management system, clinical portal and/or device-agnostic management app.)	LIST PRICE (Per Device)
A&D Medical	UA-651 Essential	*					30	1					$35
A&D Medical	UA-651BLE Wireless	*					30	1					$61
A&D Medical	UA-767F Premium	*					60	4					$62
A&D Medical	UA-1030T Talking						90	1					$83
A&D Medical	Ultraconnect Wireless						100	5					$90
A&D Medical	UA-789AC Extra Large	**					60	1					$151
Hillrom-Welch Allyn	Welch Allyn Home Blood Pressure Monitor 1700 Series						99	1					$100
Omron	Bronze Upper Arm						14	1					$39
Omron	3 Series Upper Arm						14	1					$50
Omron	Silver Wireless						80	1					$51
Omron	5 Series - Upper Arm						60	2					$65
Omron	5 Series Upper Arm Wireless						60	1					$70
Omron	Gold Upper Arm						60	2					$70
Omron	Platinum Upper Arm						100	2					$75
Omron	7 Series Upper Arm Wireless						60	2					$90
Omron	10 Series Upper Arm Wireless						100	2					$100
Omron	HEM-9200T	*					100	1					$100
Omron	HEM-9210T	*					100	1					$115
Omron	Complete Wireless						90	1					$199
Withings	BPM Connect						16	8					$100
Withings	BPM Connect Pro						16	8					$150

At-a-Glance Comparison provides a high-level overview of select home blood pressure monitor devices. This resource can be used in combination with the Choosing a Home Blood Pressure Monitor Notes Sheet and Choosing a Home Blood Pressure Monitor Scoring Rubric to assist your organization in selecting a home blood pressure monitor device for purchase. Individual research and, if possible, hands-on demonstration of the devices are highly recommended before selecting a device for purchase. All At-a-Glance information is current as of 5/20/2021.

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* Device currently in the process of validation
** Manufacturer planning to submit to VDL

Device Features

- Validated
- Upper arm
- XL cuff
- Bluetooth-enabled
- Memory / # readings
- # Users
- Averaging
- Dashboard report
- Device integration
- Data integration
- List price

https://www.nachc.org/wp-content/uploads/2021/05/Choosing-a-Home-BP-Monitor_At-a-Glance-Comparison.pdf

Validated blood pressure device procurement policy & procedure template

AMA and AHA created a template policy for procurement of validated devices and distribution to patients

- Intended for health care organizations and employers

Policy Objectives

- Create a systematic approach for using institutional resources in alignment with current clinical guidelines
- Ensure equal and equitable patient access to high quality devices and avoid the potential for creating tiered or disparate access to validated devices through a supportive and inclusive structural policy

POLICY

1. Organizational **resources** will only be used for validated blood pressure (BP) measurement devices. Resources include but not limited to:
   - Budget, grants, sponsorship, in-kind, community benefit dollars, etc. Directed budget operating or capital expenses for medical supply or device procurement.
2. Organizational resources will only be used for validated blood pressure devices including but not limited to the **following purposes**:
   - Ambulatory clinical practices, trainings, screening events, research, gift/giveaways, workplace kiosks, employee benefits

Validated blood pressure device procurement policy & procedure template

PROCEDURE

1. When purchasing any blood pressure device, follow bidding procedures (consistent with existing procurement policies) for **validated devices meeting the needed specifications**.
   - Consider needed cuff sizes as part of the bid specifications, noting that not all validated devices have been tested for clinical accuracy with all of the cuff sizes available with a particular model.
2. Ensure that **device distribution is coupled with a plan** for:
   - In-clinic use: **Healthcare professionals training** resources for proper measurement technique and calibration.
   - In-home use: **Patient education** resources for proper measurement, recording, calibration, plan for relay of information to provider.
   - Appropriate cuff sizing with the patient.

SMBP Data Platforms

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SMBP platforms

- The SMBP platform can be a bridge between the blood pressure device and the electronic health record.

- It can solve the problem of:
  - Manual data entry
  - Selective reporting

- It can also be used to:
  - Facilitate the use of validated devices
  - Promote health literacy
  - Provide an integration into the electronic health record
  - Connect to social platforms and other resources

What is the role of the SMBP platform?

- Provide a bridge between the reading taken by the device and the Health Center-Professionals
- Provide a way to aggregate and analyze data taken by the patient, in the home.
- Provide direct access to the Health Center's back office (EHR, billing)
- Provide a method of providing sustained feedback, education and mentoring to the patient
- Provide a method of providing healthcare professionals with valid blood pressure measurements, taken in the home, between visits
- Connect to other services that may help with hard to solve problems

The SMBP process: Follow the data

Patient is identified for SMBP by healthcare professional

Patient begins taking blood pressure readings in the home

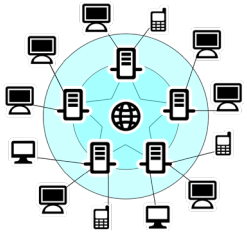
Patient returns to the clinic for follow-up readings

Patient acquires access to home blood pressure device

- How do they track their progress?
- What feedback do they receive?

How do the readings get back to the Health Center?

- How do they measure the patient's individual progress
- How do they evaluate the success of the program?
- How does the data integrate with EHR, billing, reporting?



SMBP platforms: What questions to ask

- What is the business model and description of platform?
- How is blow pressure measured?
  - Use of different cuff sizes
  - Use of validated devices (VDL™)?
- How is the data transmitted? (Bluetooth, cellular, manual)
- What are your EHR integration capabilities?
- Do you have internet/Wi-Fi connection requirements?
- What is the user interface? (app, wearable, browser)
  - User messaging/alerts
  - User dashboard/reporting
  - User coaching
- Does your solutions include a care plan?

Other key questions

- Do you have a social/community navigation system?
- Does it identify gaps in care?
- What languages are supported?
- Does it support cultural adaptation?
- Is it a diverse supplier?
- Is there user training/support/maintenance?
- Does it support administrative reporting/track outcomes?
- Does it have telemedicine capability?

Summary of findings

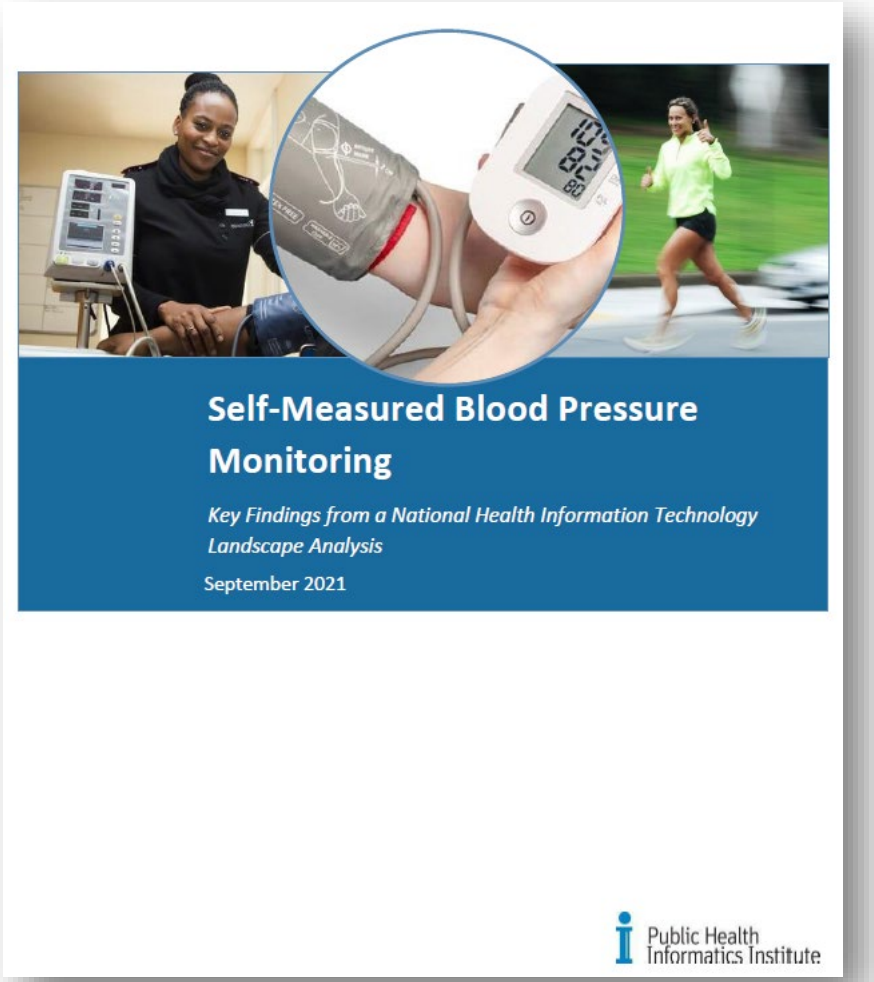
1. The majority of platforms do not use devices that are on the VDL. Many are now in the validation process.
2. Most, but not all, allow for different cuff sizes, and do not charge extra for larger cuffs.
3. Data transmission is split evenly between Bluetooth and cellular.
4. About half provide a care plan or digital coaching.
5. More than half provide telemedicine services.
6. About one-third use a social navigation service.
7. Business model varies. Platforms describe themselves in many ways, including SAAS, PAAS, DAAS, SMBP, digital therapeutics, mobile apps, devices, and electronic health records.
8. Many represent diverse businesses, including female, veteran, and immigrant ownership.

Conclusions

- There is no system that ‘checks’ all of the boxes.
- Evaluate the functionality of the platform based on the specific needs of the health center.
- Consider use of social navigation as a component of the platform to mitigate many of the barriers to blood pressure control, such as transportation, food insecurity, and pharmacy.

NEW: Public health informatics institute report

- Regulatory & policy
- Interoperability standards
- SMBP in practice
- SMBP health IT data flow use case
- Terms, value sets, and more….



https://phii.org/wp-content/uploads/2021/09/PHII-Report-on-SMBP_WebsiteVersion_9.14.2021.pdf

Poll #4

What are your barriers to using an SMBP platform? (select all that apply)

A) Set up costs

B) Maintenance costs

C) BP Device compatibility

D) EHR compatibility

E) Provider / care team workflow

F) Patient considerations

SMBP Coding, Billing, & Reimbursement

TARGET:BP™ | American Heart Association. AMA

Challenges with coding and payment

- Many complex questions around how to code and bill for SMBP services
- For coding purposes, SMBP is a subset of RPM services
  - Different parameters and requirements, with different reimbursement rates
- Still some variability in insurance coverage (public and private)
- Working through these questions with your coding, finance, and legal teams will help maximize those revenue opportunities

Is it covered by insurance?

What about devices?

What is billable?

What's the difference between SMBP and RPM?

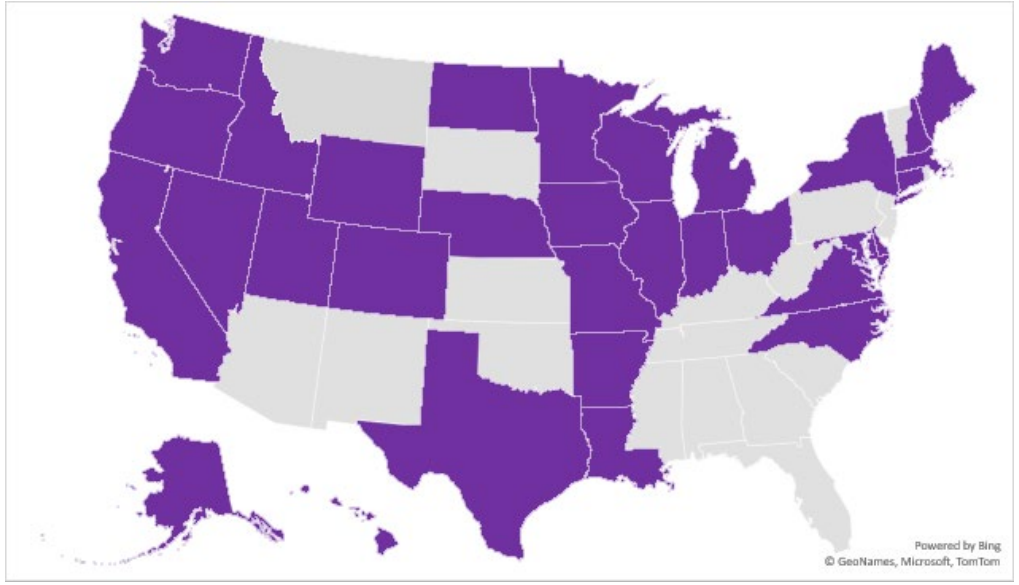
Who can provide the service?

What is the reimbursement rate?

State of coverage for SMBP - Medicaid analysis

- Landscape of state Medicaid programs that cover SMBP clinical services and automated BP devices
  - Continued initial research by CDC Million Hearts team
  - Research compiled from Medicaid provider fee schedules and handbooks, and durable medical equipment (DME) fee schedules
  - Included any limitations or parameters to coverage
- Exciting that many states now offer some level of coverage, but gaps still remain
  - Device reimbursement may not be sufficient ($60 average, validated device average $85)

32 states and D.C. currently provide some level of coverage for an automated BP device



Medicaid snapshot

SMBP Services and Automatic Device
(99473, 99474, and A4670, n=13)

Delaware*, Hawaii, Idaho, Indiana*, Michigan*, North Carolina, North Dakota*, Ohio, Oregon, Texas*, Virginia*, Wisconsin*, Wyoming*

*These also cover the extra BP cuff (A4663) **8 of the 13**

SMBP Services ONLY
(99473 and 99474, n=8)

Arizona, Florida, Georgia, Kansas, Kentucky, Montana, New Jersey, New Mexico

Automated Blood Pressure Device ONLY
(A4670, n= 20)

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

* These also cover the extra BP cuff (A4663) **15 of the 20**

SMBP codes

Clinical services

CPT® Code	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

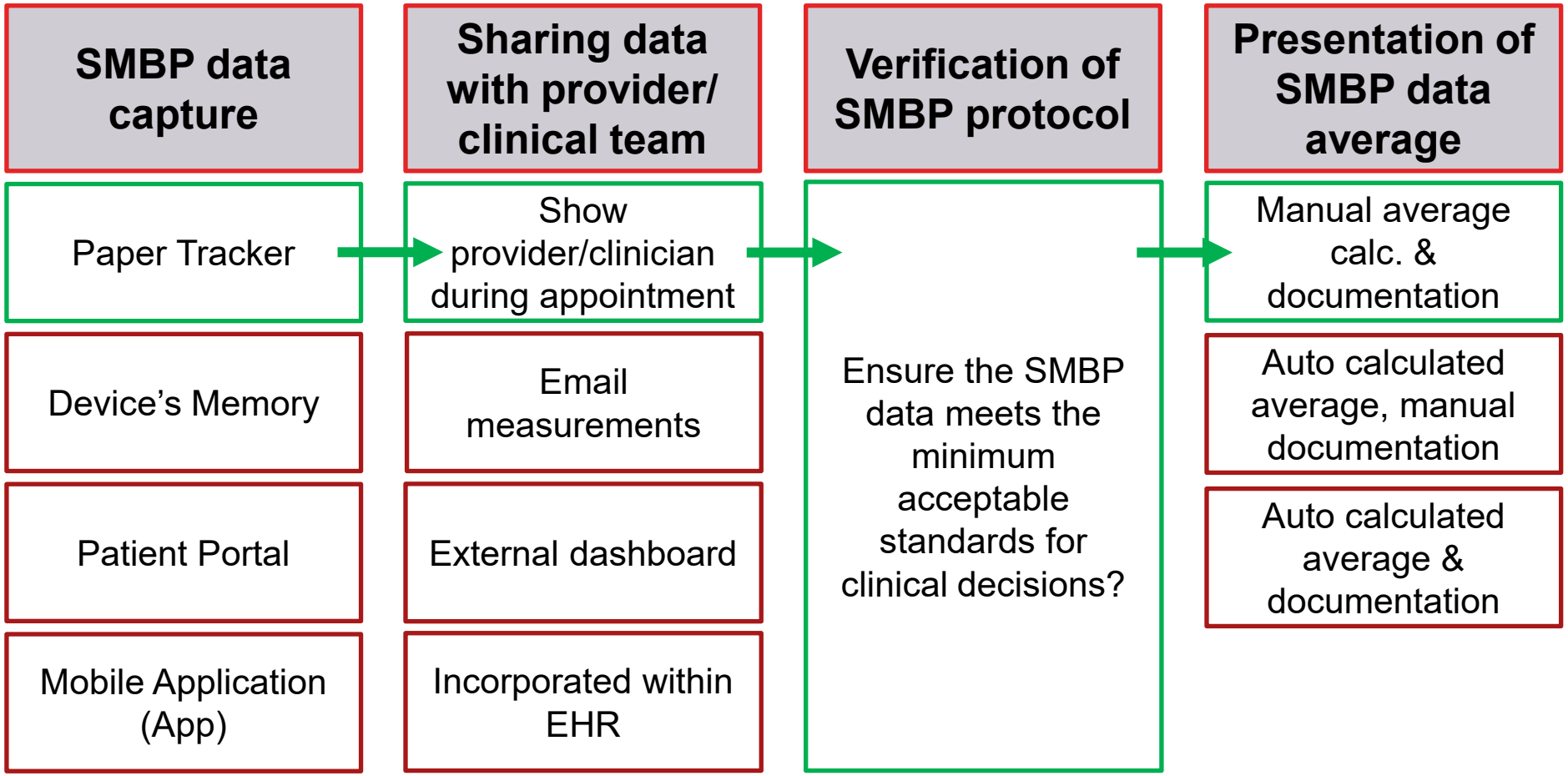
Devices

HCSPCS Code	Code Description
A4670	Automatic blood pressure device
A4663	Blood pressure cuff only
A4660	Mercury sphygmomanometer with a cuff and stethoscope

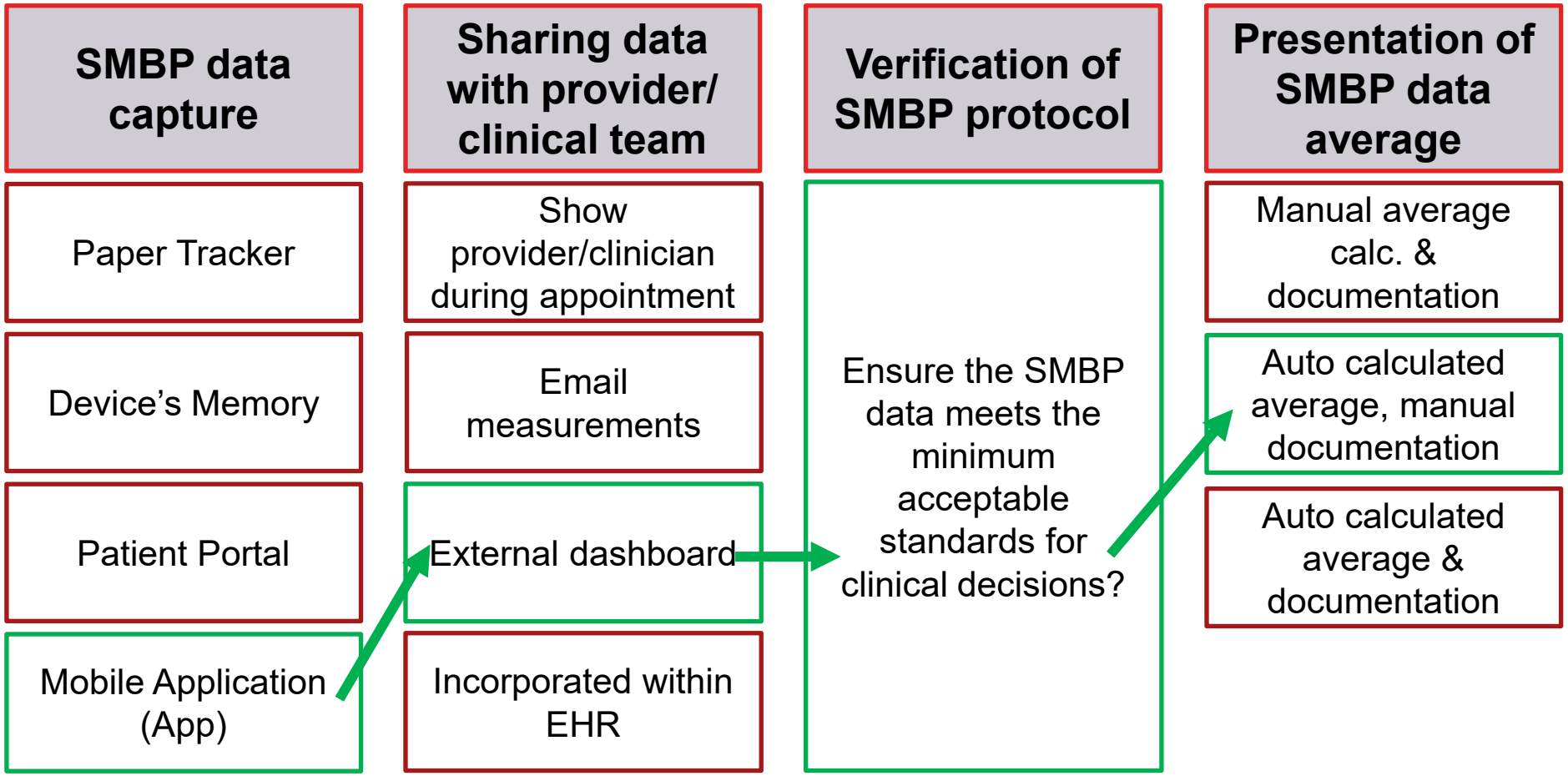
Remote physiologic monitoring (RPM) codes

	CPT® Code	Code Description
Device	99453	Remote monitoring of physiologic parameter(s) (eg, weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment.
Device	99454	Device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days.
Treatment Management Services (TMS)	99457	Remote physiologic monitoring treatment management services, 20 minutes or more of clinical staff/physician/other qualified healthcare professional time in a calendar month requiring interactive communication with the patient/caregiver during the month.
Treatment Management Services (TMS)	99458	Remote physiologic monitoring treatment management services, clinical staff/physician/other qualified health care professional time in a calendar month requiring interactive communication with the patient/caregiver during the month; additional 20 minutes
Treatment Management Services (TMS)	99091	Collection and interpretation of physiologic data (eg, ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified healthcare professional, qualified by education, training, licensure/regulation (when applicable) requiring a minimum of 30 minutes of time, each 30 days.

SMBP codes offer flexibility and low-tech options



RPM codes require more high-tech options



Parameters for reimbursement

SMBP

- Readings and communication can be non-digital
- Minimum number of readings required (12, averaged)
- Device obtained by patient
- No time requirements by providers

99473
$11.52

99474
$15.00

A4670

A4663

RPM

- Requires a connected device with automatic digital transmission
- Minimum number of days required for readings (16)
- Device provided to the patient
- Minimum time for interactive patient communication

99453
$19.19

99454
$63.16

99457
$50.94

99458
$41.17

OR

99091
$56.88

2021 Medicare National Payment Rate

Clinical quality measures

Controlling High Blood Pressure

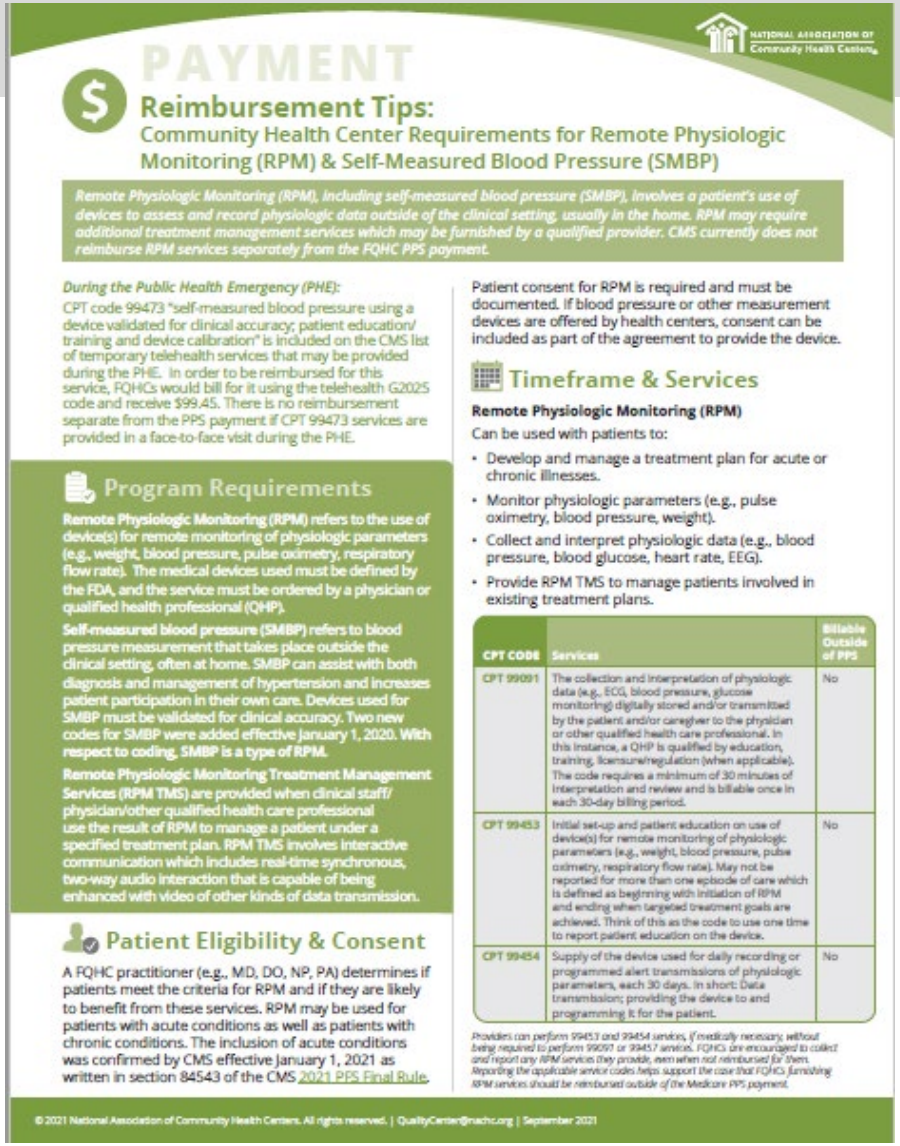
Measure	Patient Reported BP allowed	Transmission of BP required	Notes
CMS165v10 / UDS - 2022	✓		Clinician responsible for ensuring device is reliable and readings are accurate
CMS165v9/ UDS - 2021		✓	Digital storage on device, recorded into health record
HEDIS - 2021	✓		
MIPS 236 - 2021	✓		
NQF 0018 TBD		✓	Annual update in progress

Additional info

NACHC Reimbursement Guide for FQHCs (just released!)

AMA/AHA recently submitted a Medicare National Coverage Determination (NCD) request for automated BP devices

- Encourage comments when the request is opened for public comment



PAYMENT

Reimbursement Tips:
Community Health Center Requirements for Remote Physiologic Monitoring (RPM) & Self-Measured Blood Pressure (SMBP)

Remote Physiologic Monitoring (RPM), including self-measured blood pressure (SMBP), involves a patient's use of devices to assess and record physiologic data outside of the clinical setting, usually in the home. RPM may require additional treatment management services which may be furnished by a qualified provider. CMS currently does not reimburse RPM services separately from the FQHC PPS payment.

During the Public Health Emergency (PHE):
CPT code 99473 "self-measured blood pressure using a device validated for clinical accuracy; patient education/training and device calibration" is included on the CMS list of temporary telehealth services that may be provided during the PHE. In order to be reimbursed for this service, FQHCs would bill for it using the telehealth G2025 code and receive $99.45. There is no reimbursement separate from the PPS payment if CPT 99473 services are provided in a face-to-face visit during the PHE.

Program Requirements

Remote Physiologic Monitoring (RPM) refers to the use of device(s) for remote monitoring of physiologic parameters (e.g., weight, blood pressure, pulse oximetry, respiratory flow rate). The medical devices used must be defined by the FDA, and the service must be ordered by a physician or qualified health professional (QHP).

Self-measured blood pressure (SMBP) refers to blood pressure measurement that takes place outside the clinical setting, often at home. SMBP can assist with both diagnosis and management of hypertension and increases patient participation in their own care. Devices used for SMBP must be validated for clinical accuracy. Two new codes for SMBP were added effective January 1, 2020. With respect to coding, SMBP is a type of RPM.

Remote Physiologic Monitoring Treatment Management Services (RPM TMS) are provided when clinical staff/physician/other qualified health care professional use the result of RPM to manage a patient under a specified treatment plan. RPM TMS involves interactive communication which includes real-time synchronous, two-way audio interaction that is capable of being enhanced with video of other kinds of data transmission.

Patient Eligibility & Consent

A FQHC practitioner (e.g., M.D, DO, NP, PA) determines if patients meet the criteria for RPM and if they are likely to benefit from these services. RPM may be used for patients with acute conditions as well as patients with chronic conditions. The inclusion of acute conditions was confirmed by CMS effective January 1, 2021 as written in section 84543 of the CMS 2021 PFS Final Rule.

Patient consent for RPM is required and must be documented. If blood pressure or other measurement devices are offered by health centers, consent can be included as part of the agreement to provide the device.

Timeframe & Services

Remote Physiologic Monitoring (RPM)
Can be used with patients to:

- Develop and manage a treatment plan for acute or chronic illnesses.
- Monitor physiologic parameters (e.g., pulse oximetry, blood pressure, weight).
- Collect and interpret physiologic data (e.g., blood pressure, blood glucose, heart rate, EEG).
- Provide RPM TMS to manage patients involved in existing treatment plans.

CPT CODE	Services	Billable Outside of PPS
CPT 99091	The collection and interpretation of physiologic data (e.g., ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional. In this instance, a QHP is qualified by education, training, licensure/regulation (when applicable). The code requires a minimum of 30 minutes of interpretation and review and is billable once in each 30-day billing period.	No
CPT 99453	Initial set-up and patient education on use of device(s) for remote monitoring of physiologic parameters (e.g., weight, blood pressure, pulse oximetry, respiratory flow rate). May not be reported for more than one episode of care which is defined as beginning with initiation of RPM and ending when targeted treatment goals are achieved. Think of this as the code to use one time to report patient education on the device.	No
CPT 99454	Supply of the device used for daily recording or programmed alert transmissions of physiologic parameters, each 30 days. In short: Data transmission; providing the device to and programming it for the patient.	No

Providers can perform 99453 and 99454 services, if medically necessary, without being required to perform 99091 or 99457 services. FQHCs are encouraged to collect and report any RPM services they provide, even when not reimbursed for them. Reporting the applicable service codes helps support the case that FQHCs furnishing RPM services should be reimbursed outside of the Medicare PPS payment.

Key coding & billing questions

- Consider the patient role in SMBP and RPM
  - Does the patient already have a validated device? Is connectivity or use of technology a concern? Will patient stay engaged in RPM given frequency of readings?
- Consider needed staff, resources, and vendor contracts
  - Do you have the personnel needed to evaluate devices, distributors, DME, tech vendors?
  - What are costs to deliver the service? Does RPM come with cost obligations?
  - Provider availability and supervision based on code requirements?
- Consider how the services are impacted when PHE ends and waivers no longer in effect
  - Device calibration, copays/coinsurance?

Poll #5

Which codes do you use for BP monitoring? (select all that apply)

A. RPM codes (99453, 99454, 99457, 99458, 99091)
B. SMBP codes (99473, 99474)
C. Not currently coding for BP monitoring
D. Unsure
E. N/A since not currently performing SMBP

SMBP Panel Presentation

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EMPOWERING UNDER PRESSURE

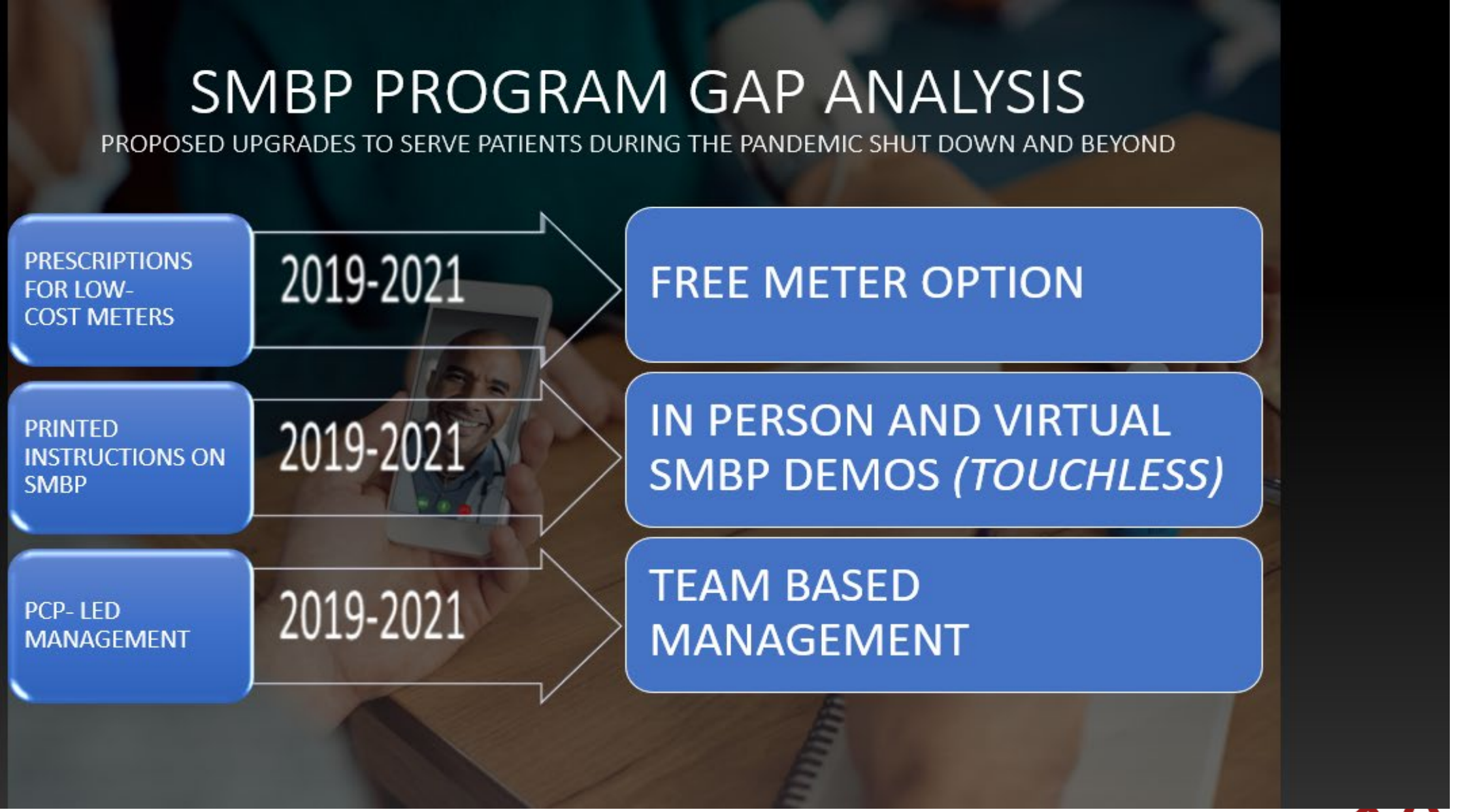
A Self-Monitored Blood Pressure (SMBP) Program

Thursday, September 23, 2021

Lydia R. Best, MD
Medical Director

SMBP PROGRAM GAP ANALYSIS

PROPOSED UPGRADES TO SERVE PATIENTS DURING THE PANDEMIC SHUT DOWN AND BEYOND



Challenges and Resources

Patient and System Specific Challenges

- Monitor cost, delivery and supply
- Patients' language preferences
- High disease burden
- Internet access, bandwidth and comfort
- EMR Patient portal access and utilization

Covid-Specific Challenges

- Social Distancing
- "Fear of Going Out"
- Essential workers

System Resources

- Integrated Care Team
- Low-cost monitors
- Low-cost medicines
- EMR

Untapped Resources

- Circular drive
- Options for free meters
- Administrative support

Goals of the SMBP Program

- Accessible
- Educational
- Affordable
- Flexible
- Modifiable
- Scalable

Program Redesign Components

Patient Assessment

- Review of Hypertension Registry
- CHW and MA calls to patients overdue for care
- MA face-to-face blood pressure checks

Access to Meters

- Obtain and distribute free or low-cost blood pressure monitors

Education

- Pharmacy Tech or MA education on SMBP
- CHW education on use of digital platforms for care

Management

- Chronic medication management with Pharmacist
- Virtual Provider visits

Evaluation

- Chart review
- Team member input
- Rapid-cycle change model

Meters Resources

- Unlimited $10 Pharmacy Meters
- Free(donated) Meters

Community Pharmacy Program	HWC COVID Grant funding	American Heart Association
33 cuffs	20 cuffs	36 cuffs

Demographics and outcomes

1/3 of our patients preferred Spanish

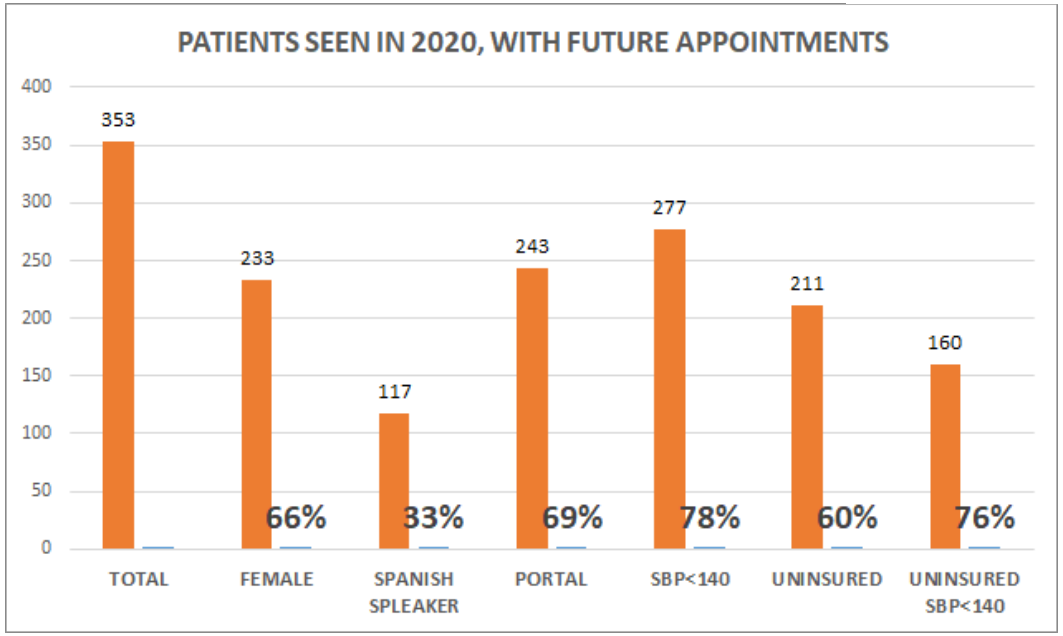
- A*ll* written and verbal materials were in English and Spanish

Patient portal use increased

- 40% in 2019
- Almost 70% in 2020

78% blood pressure control

- This held true for our uninsured patients as well
- Surpassed 2019 – Target: BP recognition- for achieving a 72% control



Interventions

- 835 patients with hypertension since 3/2020
- 353 had a future appointment(ongoing care)
- Reviewed 190 Charts
- Evaluated novel Support Strategies (Interventions)

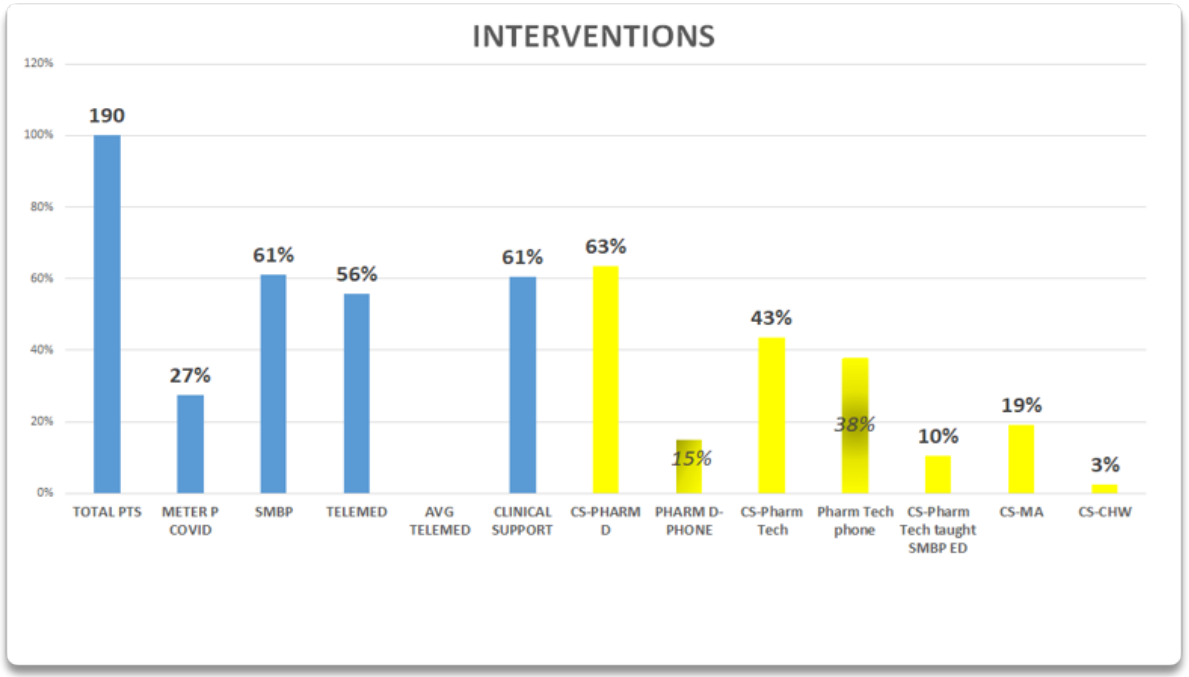
27% were given a free or low-cost meter AFTER the pandemic hit

56% had a virtual visit

4.3 virtual visits/patient on average

Pharmacist managed **2/3**'s of our patients with hypertension

Pharmacy tech performed more than **1/3** of *her* support, via the phone



Conclusions

MAJORITY OF PATIENTS DEMONSTRATED BUY-IN FOR SELF MONITORING

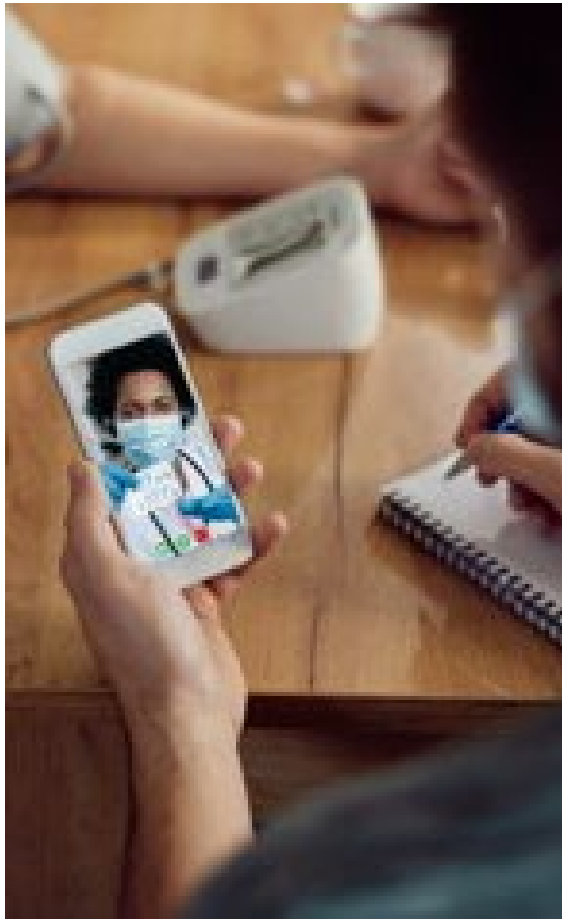
- **61%** of all patients with HTN self-monitored
- **68%** of patients with uncontrolled HTN self-monitored

PATIENTS WITH UNCONTROLLED HTN HAD ENHANCED INTERVENTIONS

- Our data showed a more aggressive response to care:
  - **61%** of the total had an intervention
  - **74%** of those uncontrolled had an intervention

USE OF PATIENT PORTAL INCREASED

- Overall - **31% in 2019 to 59% 2020-2021**
- Access to portal impacted virtual visit utilization **(65% v 41%)**
- Access to portal did *not* impact outcomes



Future Strategy

what we learned from the process

INNOVATE	Innovate training • Recorded Video training on Portal login steps • Release the Pressure videos
TRACK	Track distribution and self-monitoring in a retrievable way
CORRELATE	Correlate self-monitoring and clinical support with outcomes (control of BP)

Thank You

IMPLEMENTING AN SMBP PROGRAM AT THE SKWC

Alexa Pany, RN

Nyasha George, MD


CAUTION
WORK IN
PROGRESS

STEPHEN KLEIN WELLNESS CENTER

-33% homelessness (transitional, street, shelter, doubling up, temporary)
-shorter life expectancy (roughly 69 years vs. 75.5 for the city and 78.8 years for the nation)

- In FY 2019: HTN (I10) was our top billing dx

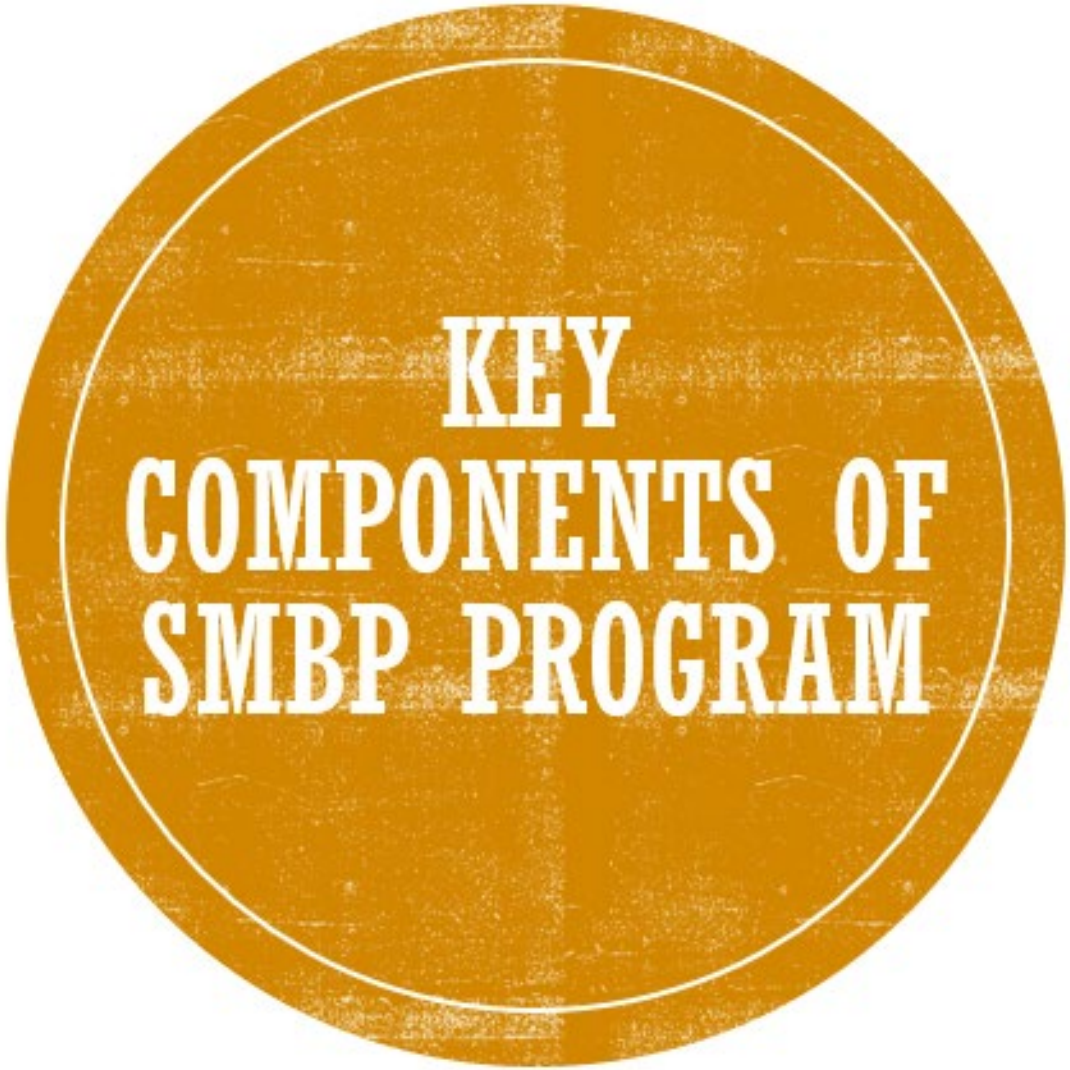
% of patients 18–85 years of age w/ HTN and whose BP <140/90

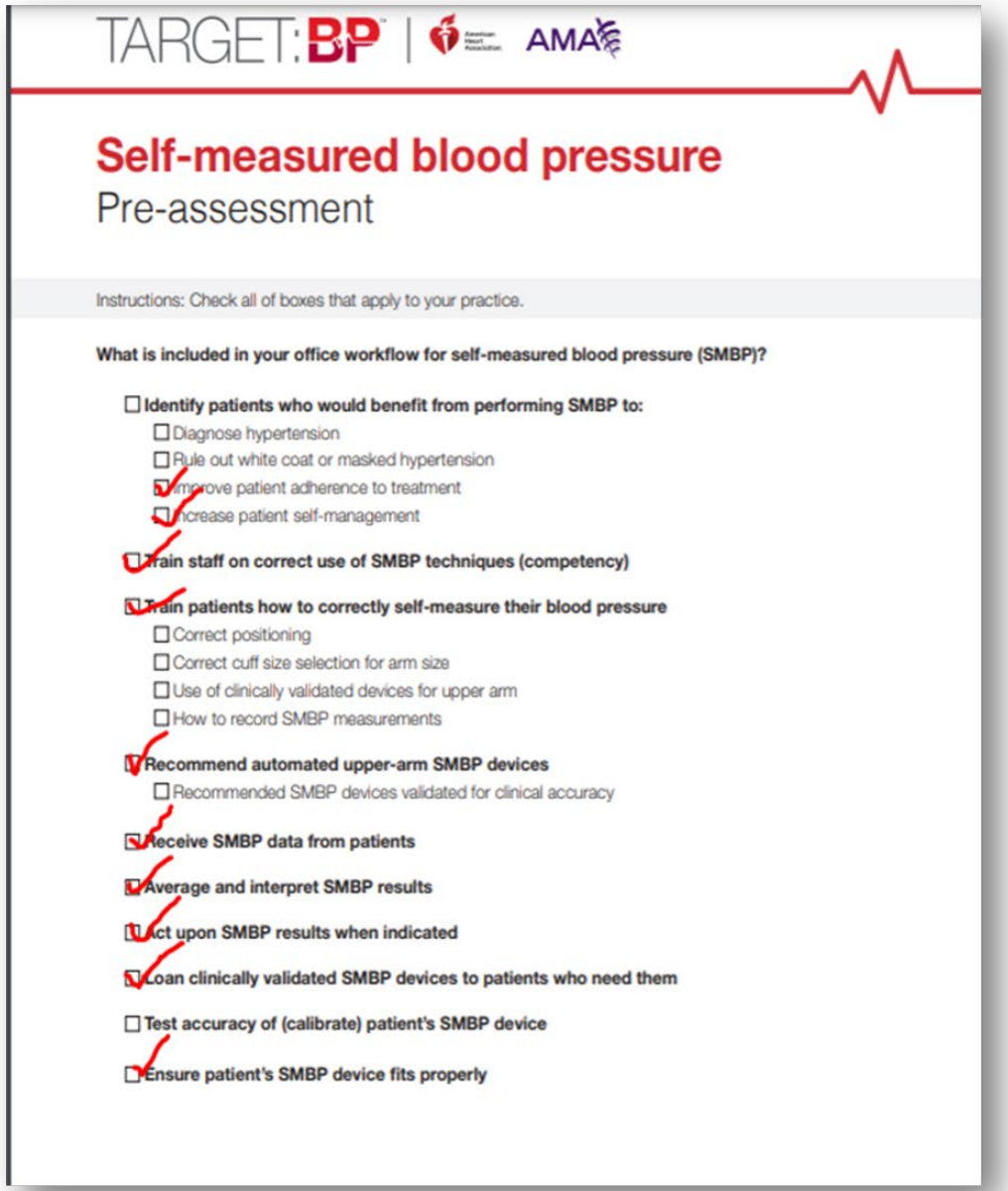
- 2018: 58.5% (488 of 834 patients)
- 2019: 53.1% (526 of 1009 patients)
- 2020: (3rd quarter) 53.9% (600 of 1114 patients)

- How we compare:
  - 2018 National Average: 63.3%
  - 2018 State Average: 63.1%

SPECIAL MENTION: COLLABORATORS

- SKWC Wellness Dept
  - Work with other social service and health organizations to address SDoH
    - Patient incentives
- Health Federation of Philadelphia
  - Membership organization of FQHCs, aims to improve the quality and accessibility of primary health care
    - Training
      - Development of training materials
    - Tech support
      - Facilitated BAA with Sphygmo
      - Advised on workflow changes, protocols
      - Provided 45 Welch Allyn BP cuffs to kick us off
      - Connected us to sales manager for A&D devices
      - RN -patient recruitment/outreach/onboarding


KEY
COMPONENTS OF
SMBP PROGRAM



TARGET:BP | American Heart Association. AMA

Self-measured blood pressure
Pre-assessment

Instructions: Check all of boxes that apply to your practice.

What is included in your office workflow for self-measured blood pressure (SMBP)?

- ☐ **Identify patients who would benefit from performing SMBP to:**
  - ☐ Diagnose hypertension
  - ☐ Rule out white coat or masked hypertension
  - ☑ Improve patient adherence to treatment
  - ☐ Increase patient self-management
- ☐ **Train staff on correct use of SMBP techniques (competency)**
- ☑ **Train patients how to correctly self-measure their blood pressure**
  - ☐ Correct positioning
  - ☐ Correct cuff size selection for arm size
  - ☐ Use of clinically validated devices for upper arm
  - ☐ How to record SMBP measurements
- ☑ **Recommend automated upper-arm SMBP devices**
  - ☐ Recommended SMBP devices validated for clinical accuracy
- ☑ **Receive SMBP data from patients**
- ☑ **Average and interpret SMBP results**
- ☐ **Act upon SMBP results when indicated**
- ☑ **Loan clinically validated SMBP devices to patients who need them**
- ☐ **Test accuracy of (calibrate) patient's SMBP device**
- ☐ **Ensure patient's SMBP device fits properly**

HOME

https://targetbp.org/tools_downloads/smbp-pre-assessment/

TRAIN STAFF ON CORRECT USE OF SMBP TECHNIQUES

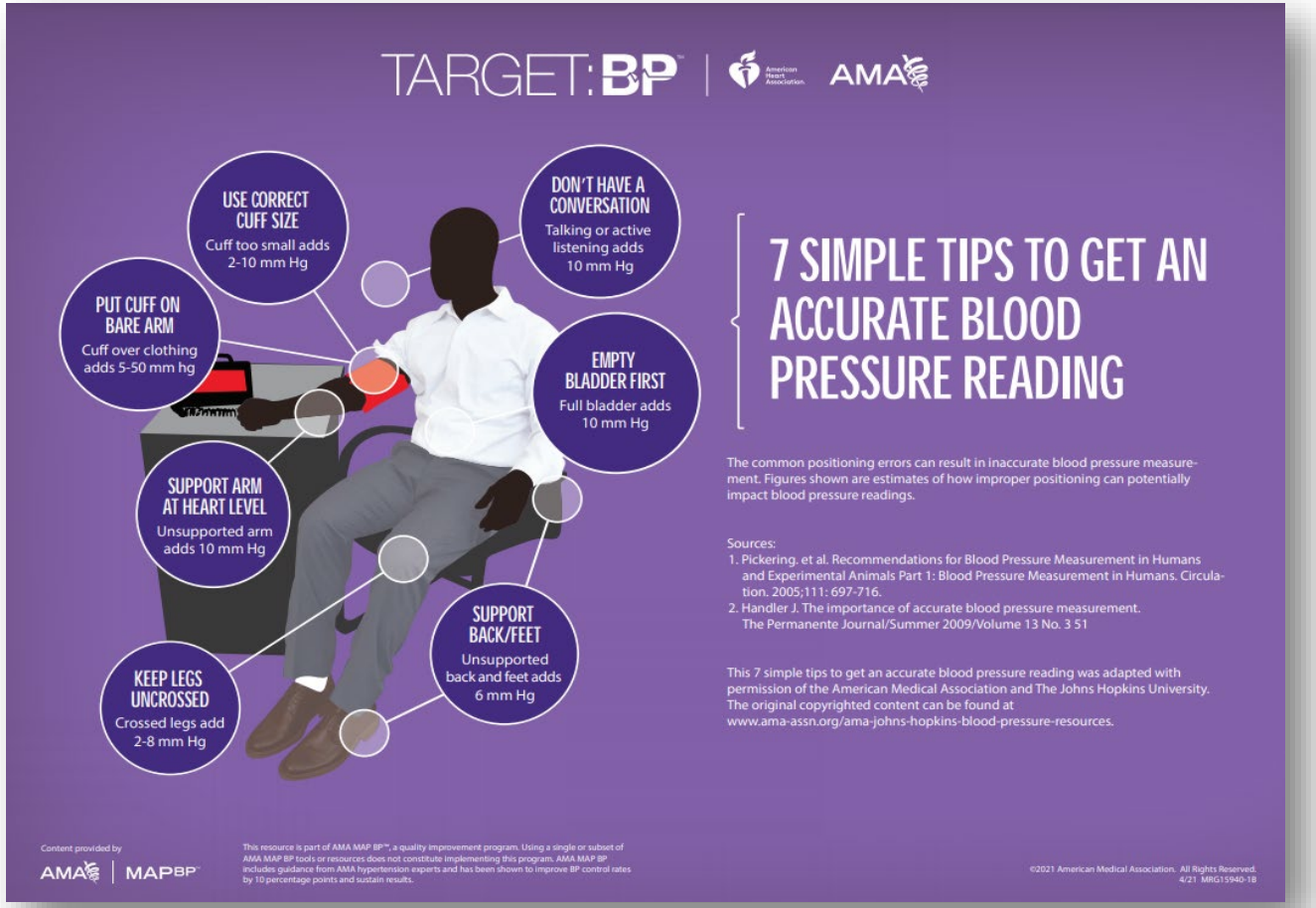
STAFF TRAINING

- Provider Training
  - Virtual training
  - Led by Health Federation
    - SMBP Evidence
    - Use of SMBP to guide HTN management
    - Act aggressively
      - Tx inertia
      - -> Combo pills for initial rx
  - May 11th

TRAIN PATIENTS HOW TO CORRECTLY MEASURE SMBP

SMBP ONBOARDING SESSIONS

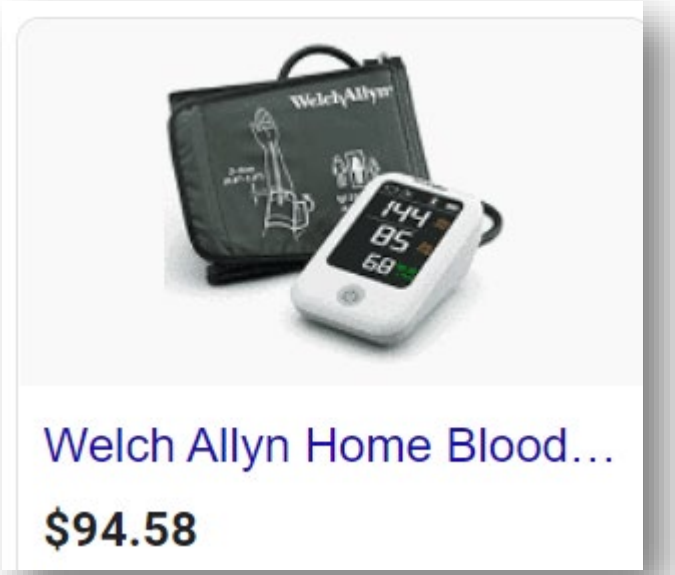
- RN led
- Tu/ Th PMs dedicated time for group onboarding and patient drop in
  - Download app
  - Distribute devices
  - Explain program and incentives



USE DEVICES VALIDATED FOR CLINICAL ACCURACY

VALIDATED SMBP DEVICES

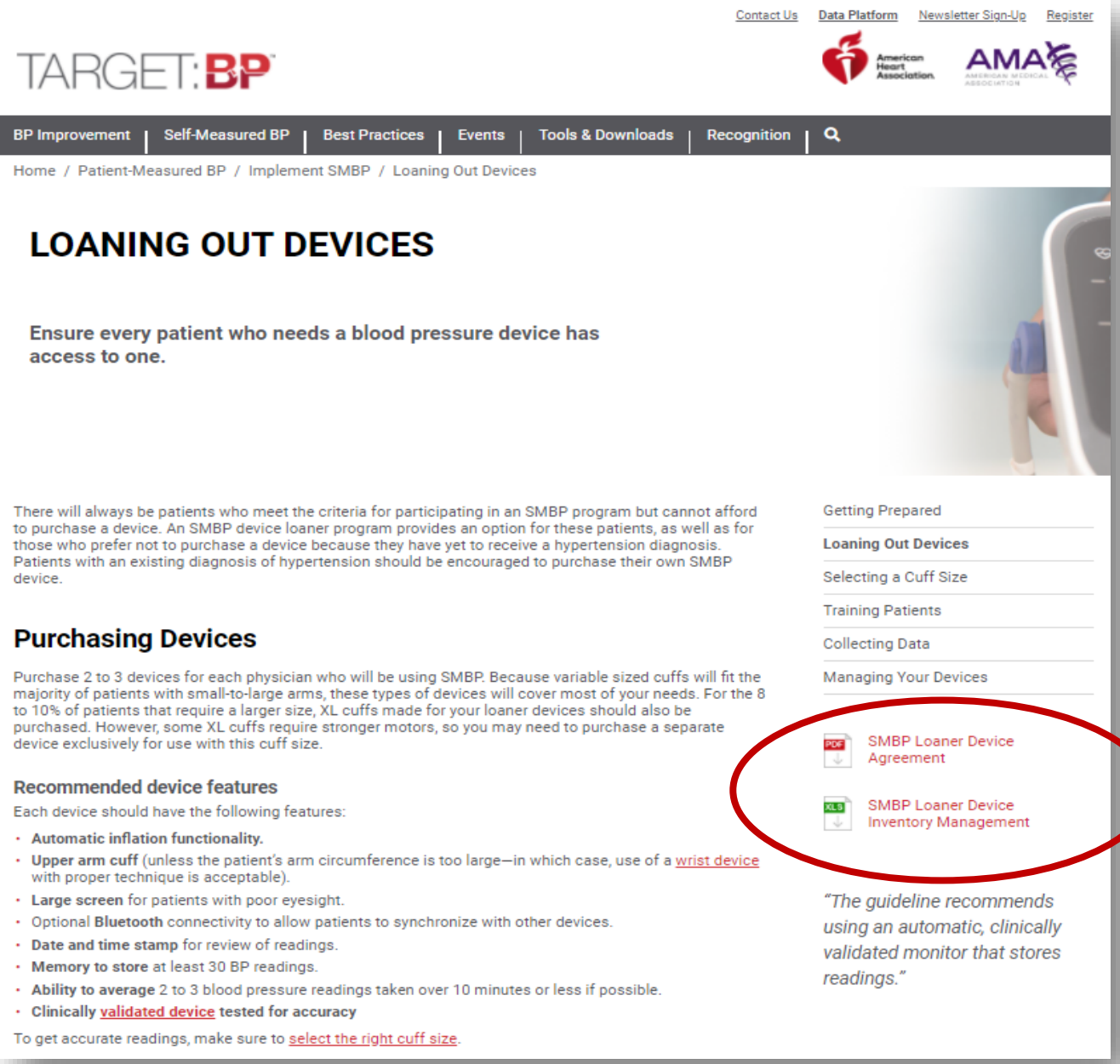
- Welch Allyn 1700
  - App (now abandoned)
  - 45 devices donated from Health Fed
    - Both WR and XL cuff sizes
    - Price >$90/device



- A&D 651-BLE
  - Plan to use in future
    - $41.29/device-->grant purchased
    - Only WR cuffs

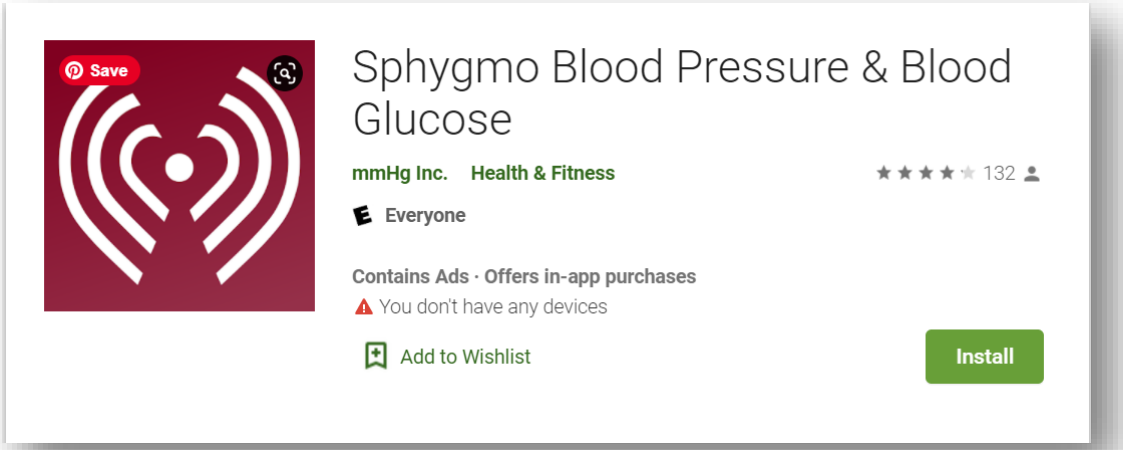
https://www.validatebp.org

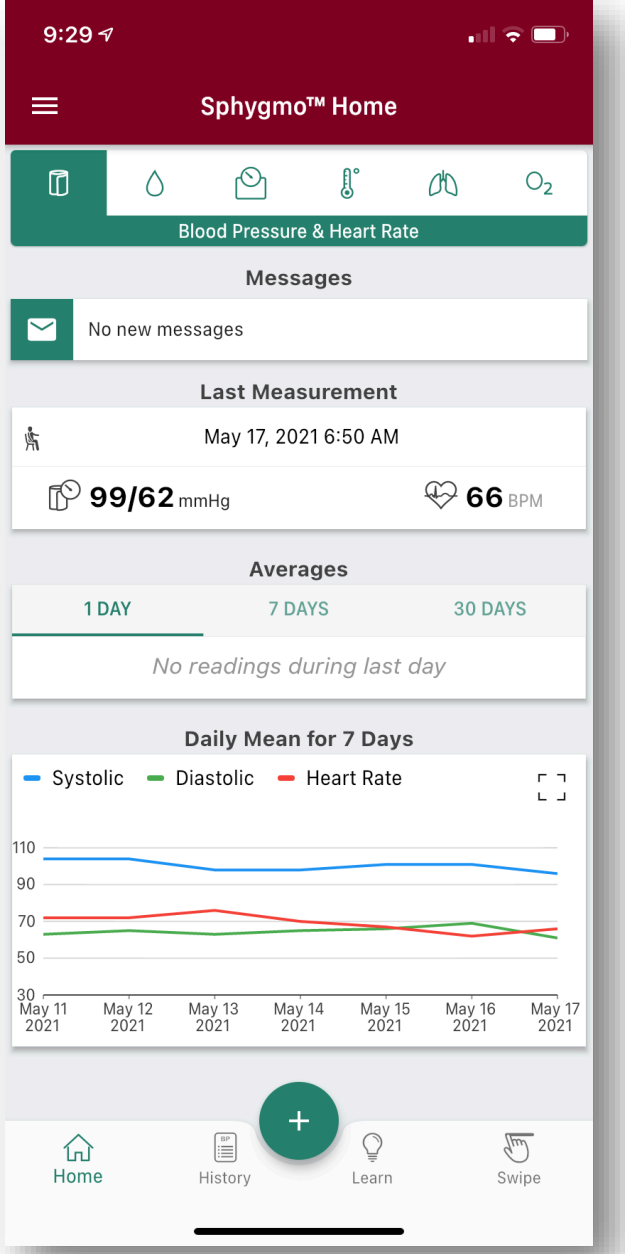
TRIAL OF LOANER DEVICES



- Patients sign contract at onboarding session
- Spreadsheet for tracking
- To date: have not received any return devices
  - May have to chalk this one up

SPHYGMO APP FOR PATIENTS



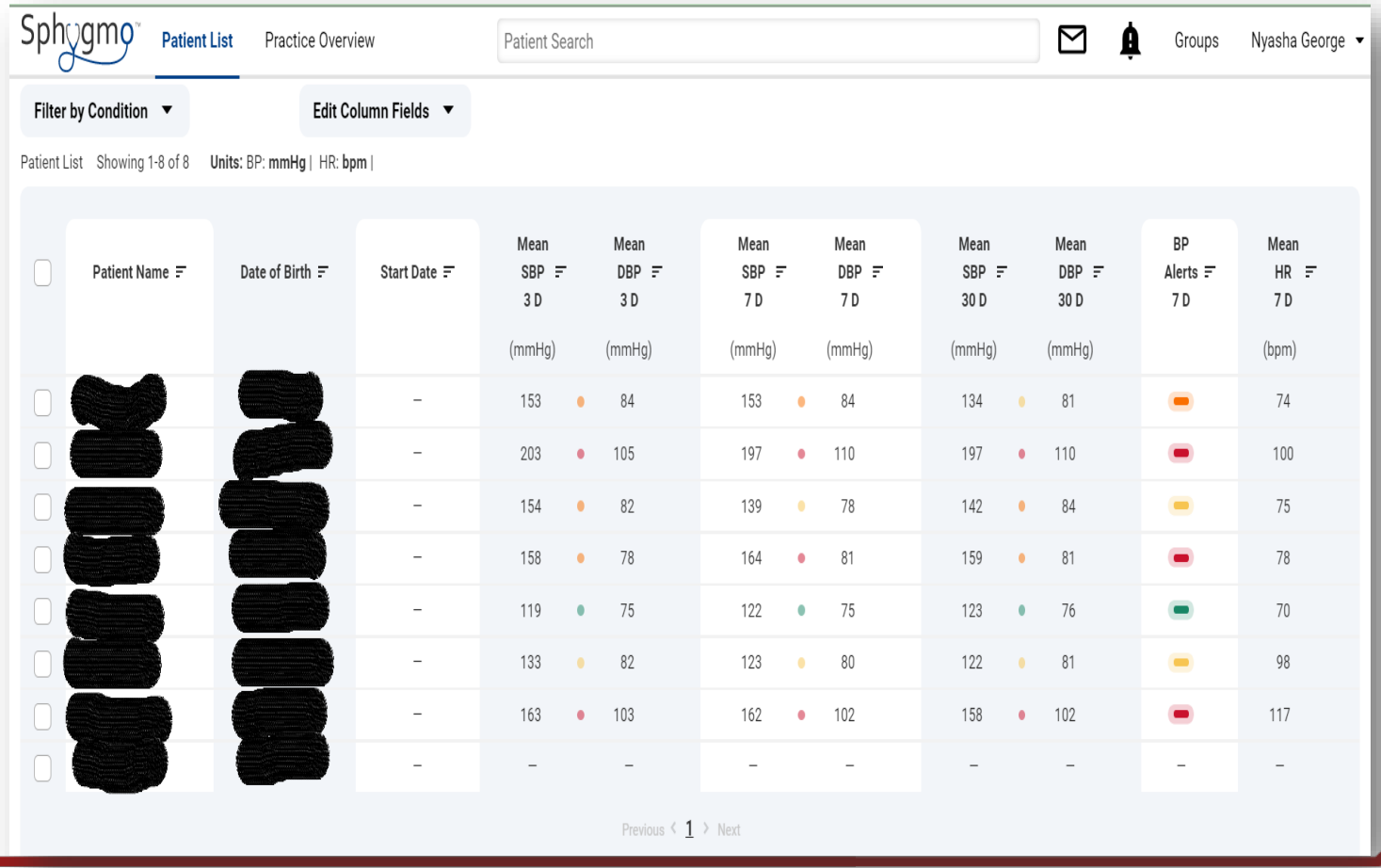


- Compatible with multiple validated SMBP devices
- Both WA and A&D devices

RECEIVE SMBP DATA FROM PATIENTS

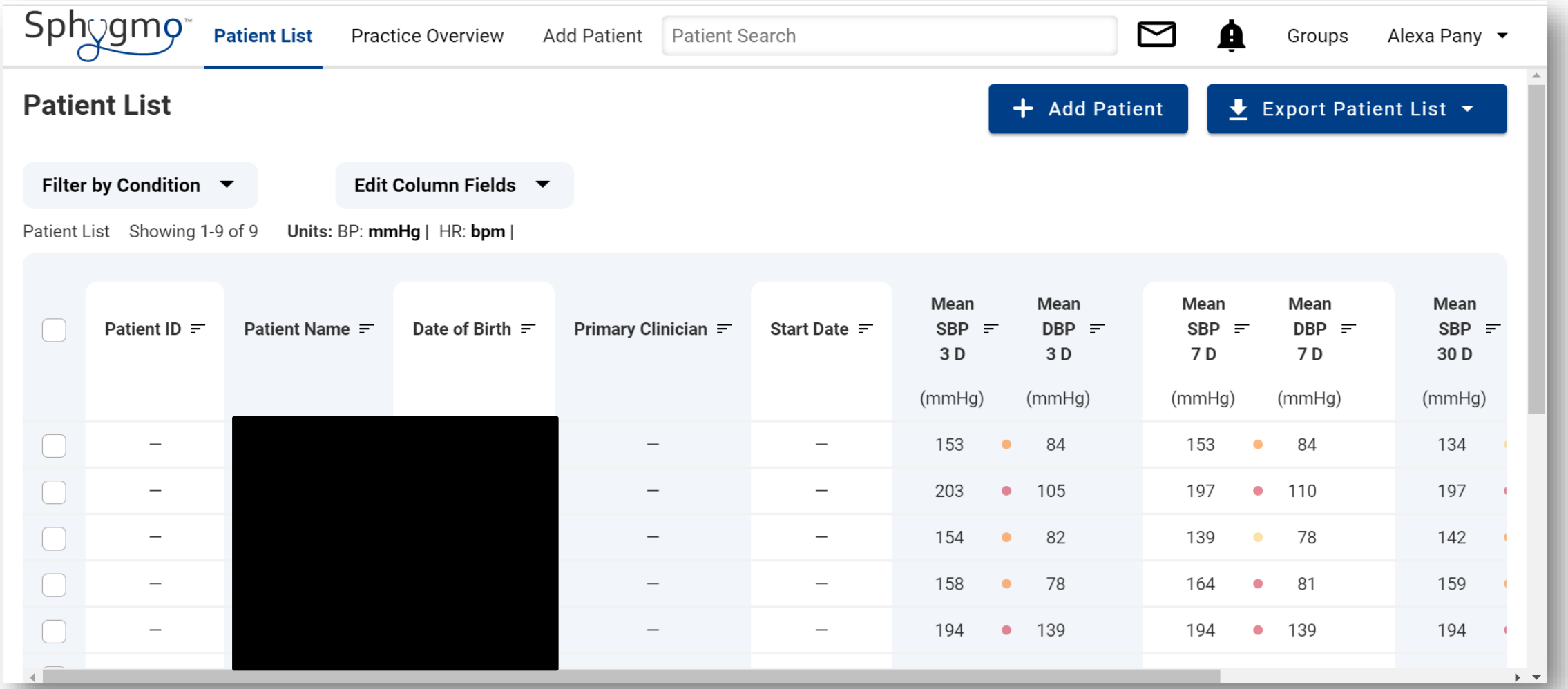
SPHYGMO CLINICAL PORTAL FOR PROVIDERS

- Patient elect to share info w/ us
  - Either practice or patient can discontinue data sharing once patient completes program
- 3, 7, 30 day averaging
- Great support
  - responsive to feedback
- Future… will support E.H.R. integration w/ NextGen



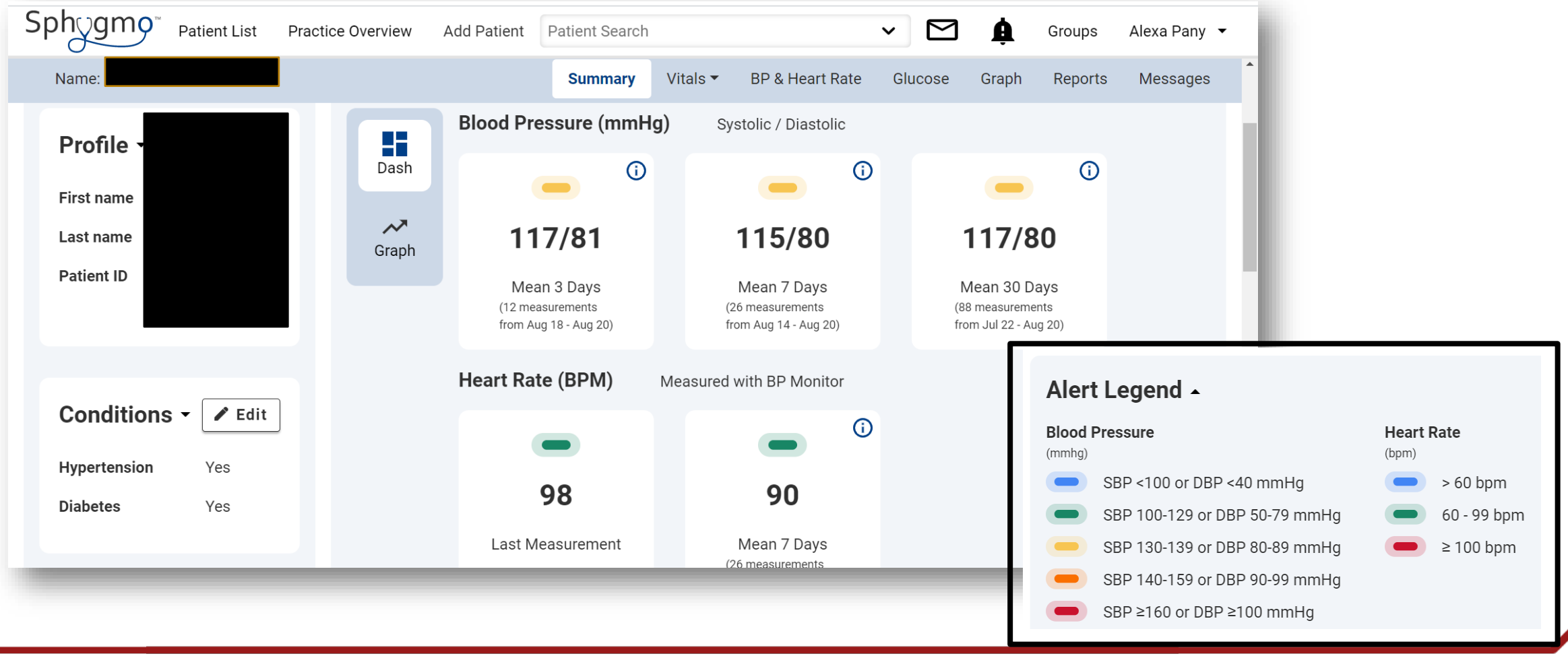
SPHGYMO TRACKING: OVERVIEW

HOME

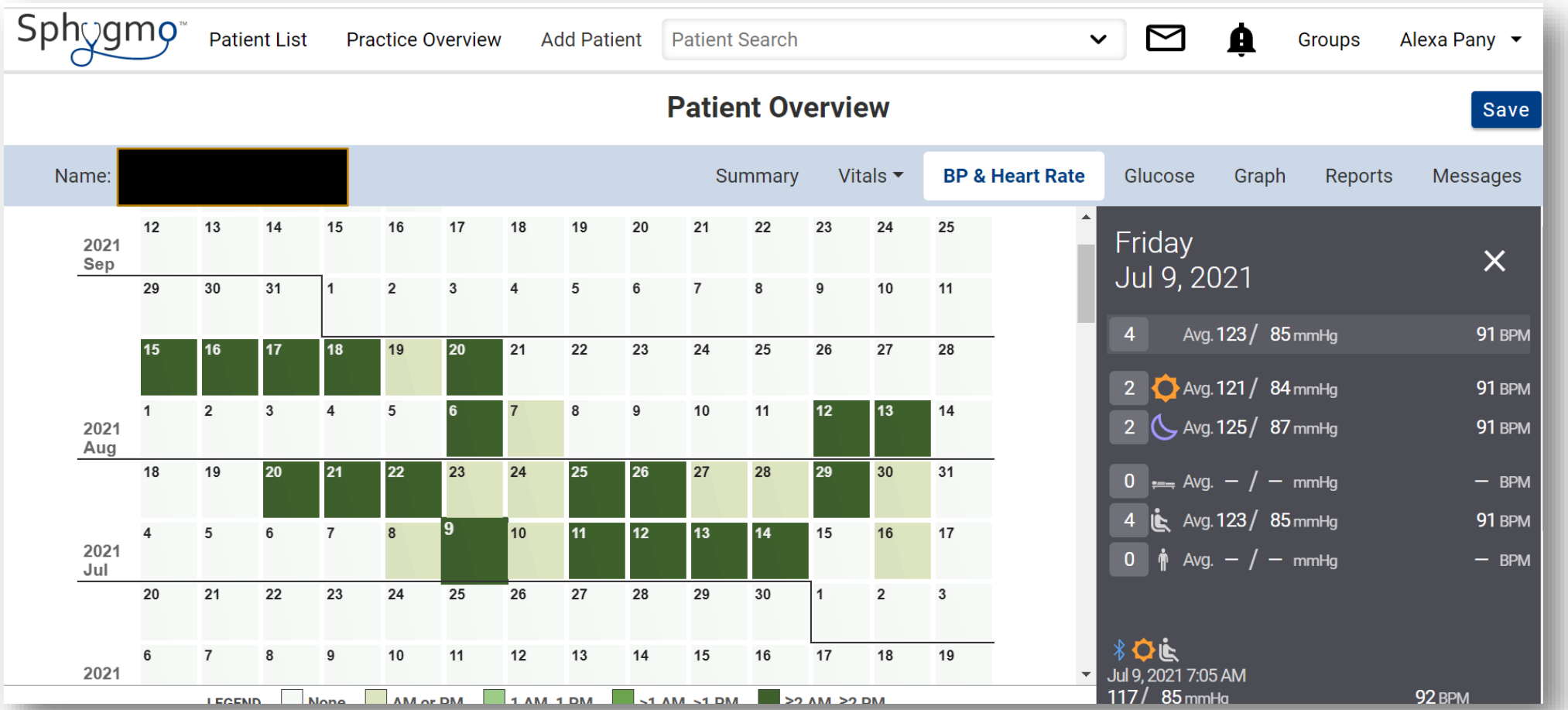


TARGET:BP | American Heart Association. | AMA

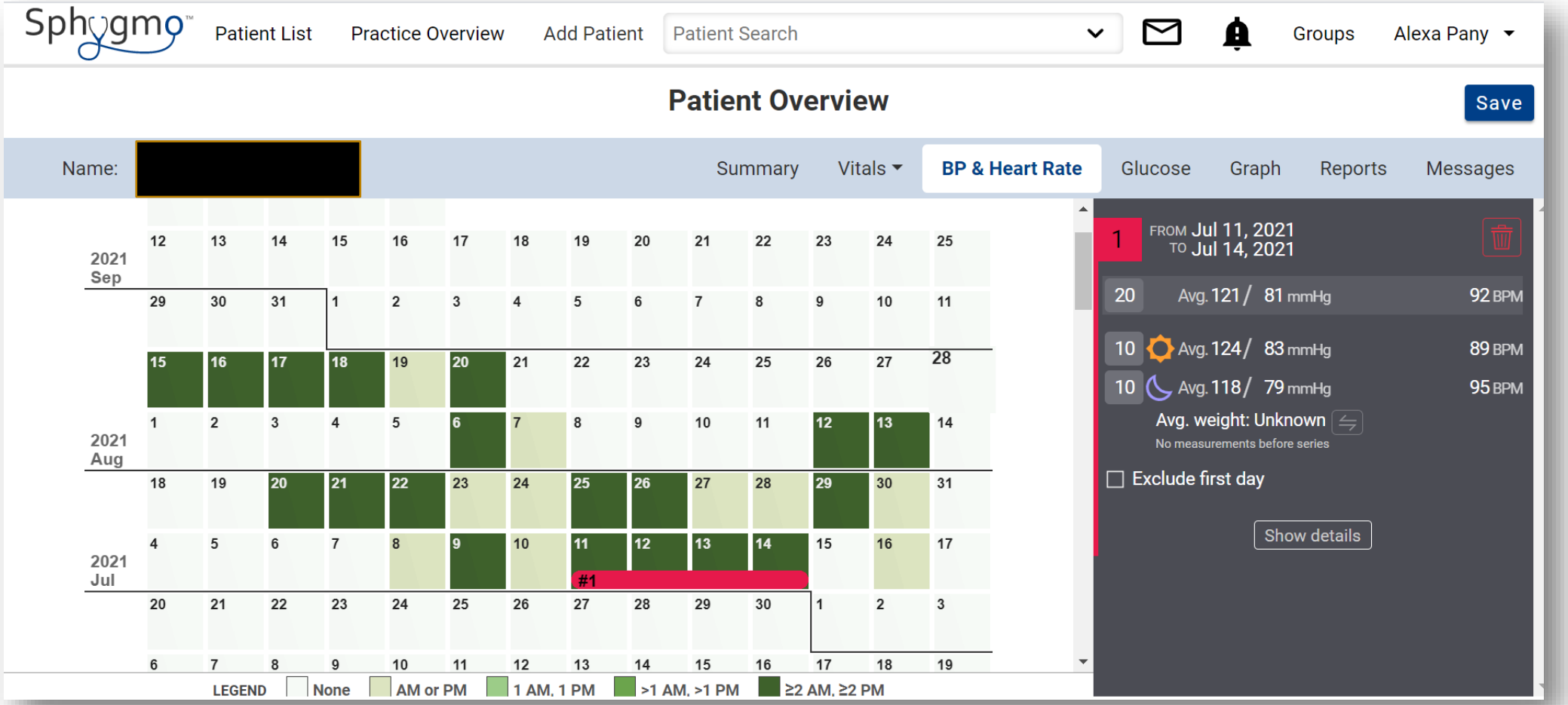
SPYGHMO TRACKING: SELECTED PATIENT



SPHYGMO TRACKING: SELECTED PATIENT

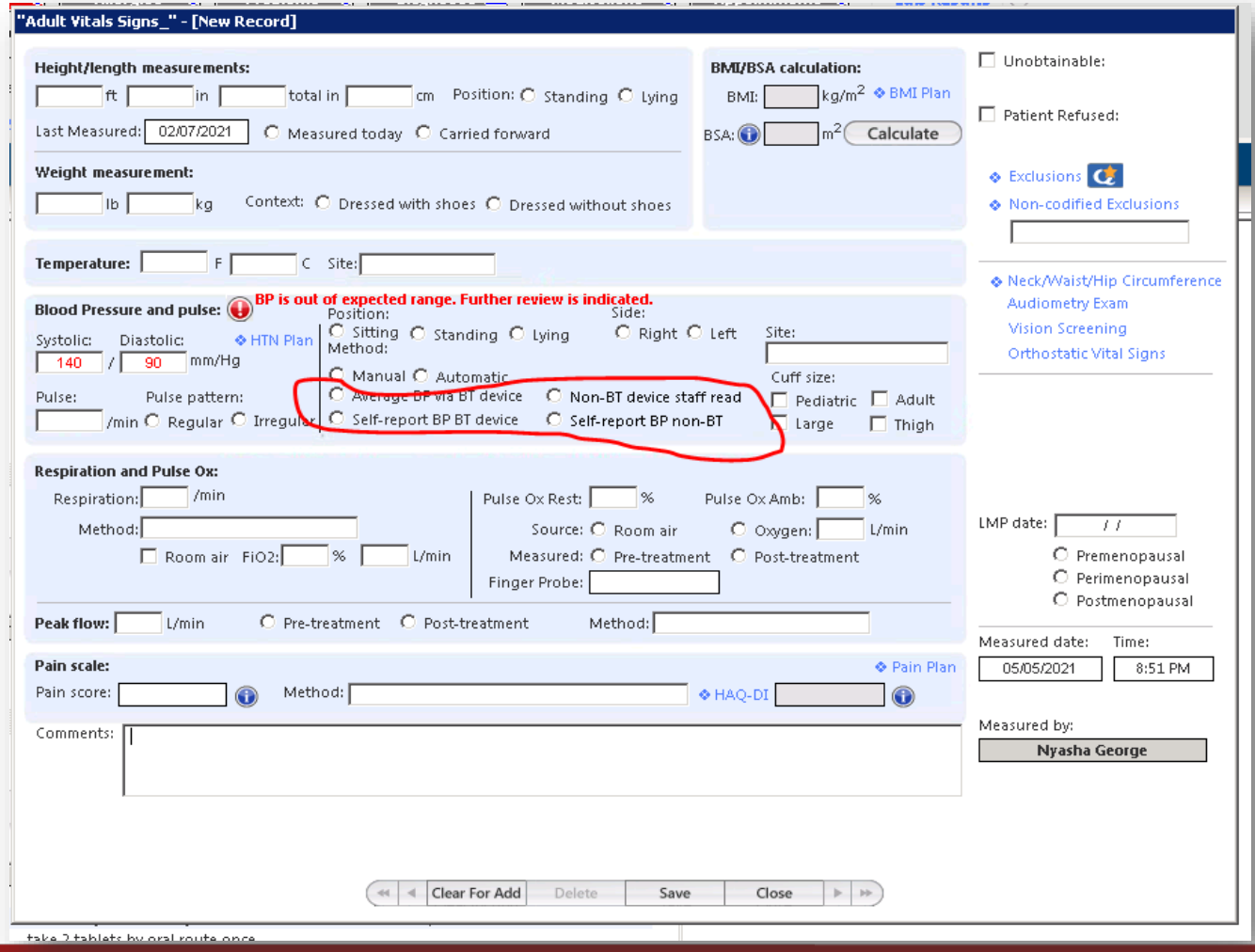


SPHYGMO TRACKING: SELECTED PATIENT



SMBP DATA IN EHR

- Worked with SKWC Healthcare Business Analyst to modify vital signs template for manual entry of SMBP into E.H.R.
  - Rolled out in June 2021
  - Temporary until E.H.R. integration




ACT ON SMBP
RESULTS WHEN
INDICATED

PATIENT TRACKING

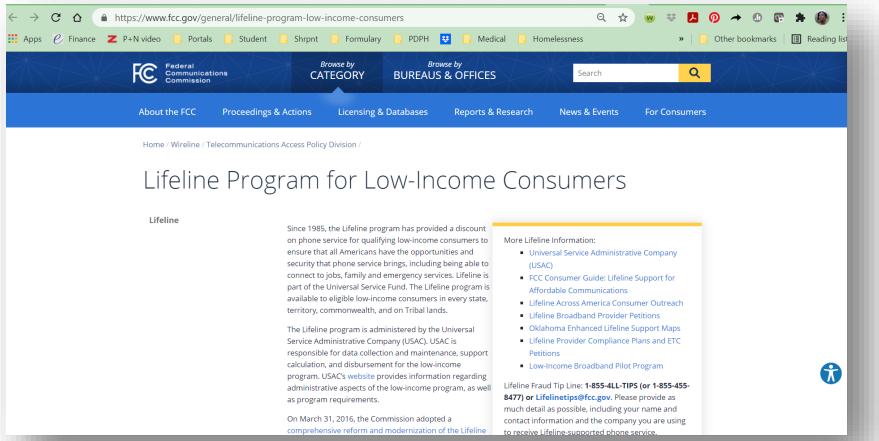
CURRENTLY ENROLLED PATIENT TRACKING

Date Enrolled	Date Graduated	Cuff_Type_Model	Cuff_Size	Device ID	Loan Date	DO NOT USE	Due date	Return Date	Clean Date
7/26/2021		WA 1700	WR		7/26/2021	3	10/26/2021		
7/9/2021		WA 1700	WR	100SBP	7/9/2021	3	10/9/2021		
7/8/2021		WA 1700	XL		7/8/2021	3	10/8/2021		

Updated Plan	Date of Updated Plan	Food Truxt Bucks Questionnaire	Food Trust Bucks Received	Eligible for 3 day incentive (6 readings in 3 days)	Ordered 3 day incentive	Item ordered
Letter sent in mail. New phone.	8/16/2021					
SMBPs not at goal; will not adjust meds at this time given patient with symptomatic orthostatic hypotension needs telehealth w/ Nyasha--> lexi to pre-schedule for Wednesday. needs cards and colonoscopy. consider nonpharm management for orthostatic hypotension	8/16/2021	Completed	Yes	Y	received	frying pan
Able to graduate. Nyasha to connect w/ HEZ re: purchase of graduation prize	8/16/2021	Completed	Yes	Y	received	yoga mat
SMBPs at goal <135/85 in last week Ordered for blood work week of 8/23 Ordered 3 day,7 day incentives, and						

- **Digital divide?**
- **Tech?**
- **Patient engagement?**
- **Staff bandwidth?**

PARTNERSHIP WITH SANO HEALTH



- Free smart phones for patients
  - Eligibility – in short, anyone eligible for Federal or State assistance: SNAP, Medicaid, Supplemental Security Income, Federal Public Housing Assistance, or Veterans and Survivors Pension Benefit
- Funding through Emergency Broadband Benefit (EBB)
  - Has $3.2 billion in funding, largely unspent
  - Will provide over 1 year of service for patients enrolled in program
  - New infrastructure bill, $65 billion most likely will be available and will continue to fund EBB
  - May replace Lifeline program (aka Obama phones)
- Sphygmo application can be pre downloaded on phone!!
- Currently uses Motorola devices
  - Brand of devices are decided based on quality and size of screen
- Services provided
  - Covers minutes and data usage
  - Normal texting and calling features
  - 1 device per household

CHALLENGES & LEARNINGS

- Tech tech tech
  - Wi-Fi connectivity (in clinic, at home)
    - Slow App downloads
    - Communication with Clinical portal
  - Patient tech savviness
    - Bluetooth
    - Non smart phone → Obamaphone appl'n for 1 client, Sano Health phones
  - App issues
    - Welch Allyn app→ abandoned
    - Sphygmo app→troubleshooting w/ Chief Operating Officer of App
- Patient engagement & attrition
  - Incentives
    - Enrollment Incentives
      - Tote bag w/ goodies at enrollment
      - Food Trust Bucks→ voucher for groceries in collaboration with a Philly/S Jersey based nonprofit to improve healthy food access
    - Earned incentives → developing w/ patient input
      - Goodies based on participation (eg, frying pan, yoga mat, pedometer, H2O bottle)
- Staff bandwidth & Burnout prevention
  - Advocacy for dedicated RN role and CHW role before expansion of program
    - Approved in budget

NEXT STEPS

- Build out of a self management department across clinic
  - Post and hire dedicated CHWs for SMBP
  - Expand program to offer all patients with HTN a referral to the SMBP program
  - Overlap with our grant supported DM self management program
- Explore E.H.R. integration of portal data

SMBP Panel Discussion – All

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Clinical resources

https://targetbp.org/tools_downloads/smbp-quick-start-guide/

https://www.ama-assn.org/delivering-care/hypertension/7-step-self-measured-blood-pressure-smbp-quick-guide?gclid=CjwKCAjwhaaKBhBcEiwA8acsHAlRKF6bo46XSAS0J7-0DMrpnDg9TqWVdHFmw9uULLkN0VEUZbFBoBoCsLIQAvD_BwE

Supplemental resources: SMBP

Guidelines & Statements

- 2017 AHA/ACC Guideline For The Prevention, Detection, Evaluation, And Management Of High Blood Pressure In Adults
- 2019 Measurement Of Blood Pressure In Humans: A Scientific Statement From The American Heart Association
- 2020 Self-measured Blood Pressure Monitoring At Home: A Joint Policy Statement From The AHA And AMA
- 2021 The Surgeon General's Call to Action to Control Hypertension

On-demand Training Resources

- SMBP pod cast
- SMBP website pages

Practice Assets

- SMBP Quick Start Guide

Other Implementation Guides

- AMA: 7-Step SMBP Quick Guide
- CDC & NACHC: Self-Measured Blood Pressure Monitoring (SMBP) Implementation Toolkit
- Million Hearts® Hypertension Control Change Package (Second Edition)
- Million Hearts® Self-Measured Blood Pressure Monitoring: Action Steps for Clinicians
- Million Hearts® Self-Measured Blood Pressure Monitoring: Action Steps for Public Health Practitioners
- AMA's Privacy Principles
- AHA's Using Remote Patient Monitoring Technologies for Better Cardiovascular Disease Outcomes Guidance
- Public Health Informatics Institute's SMBP Report

Take-home messages

- **It's complicated** – program design is a serious endeavor
  - New system of care with science, tech, info
  - Preparing patients for success
- **It's dynamic** – tech, policy, VDL™
  - What isn't possible today might be tomorrow
  - What isn't covered or validated today might be tomorrow
- **It's an opportunity to advance science, practice, and policy**
  - Unique moment to address health equity
  - Pivotal opportunity to improve control rates

Thank you & evaluation

- Thank you for your participation
- Thank you to the speakers and event team
- Please provide your feedback through our evaluation

Please see the link in the chat

https://forms.office.com/r/6LXv09hYdg

Survey will remain open until October 6

Together, we can reduce the number of Americans who have heart attacks and strokes

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