

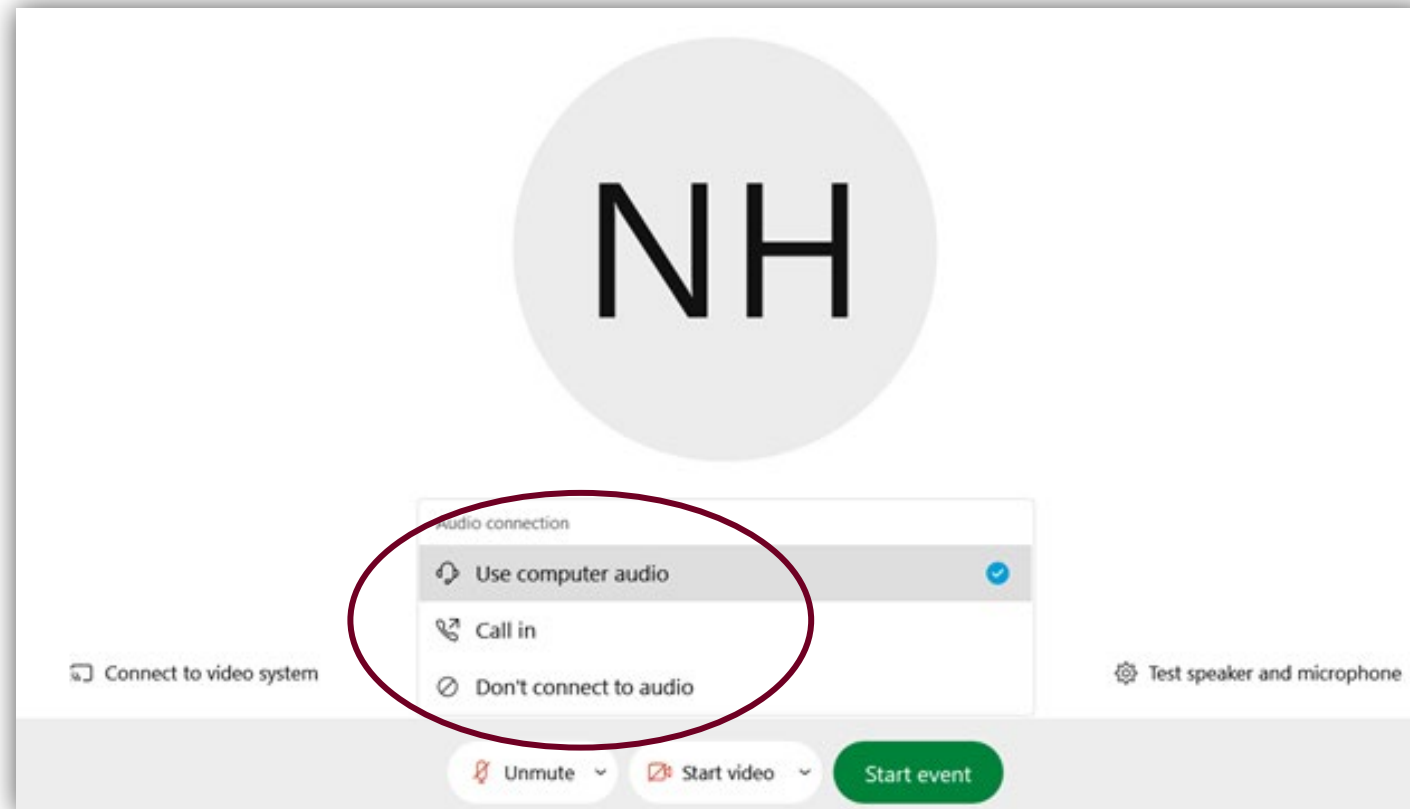
Ensure you've connected to audio!

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

September 8, 2022
1:00-2:00 PM EST



Mentimeter!

Join Directly:

<https://www.menti.com/ajb4ix4p6s>

OR

Go to: www.menti.com

Enter the code: 7182 0677

OR

Use the QR Code →



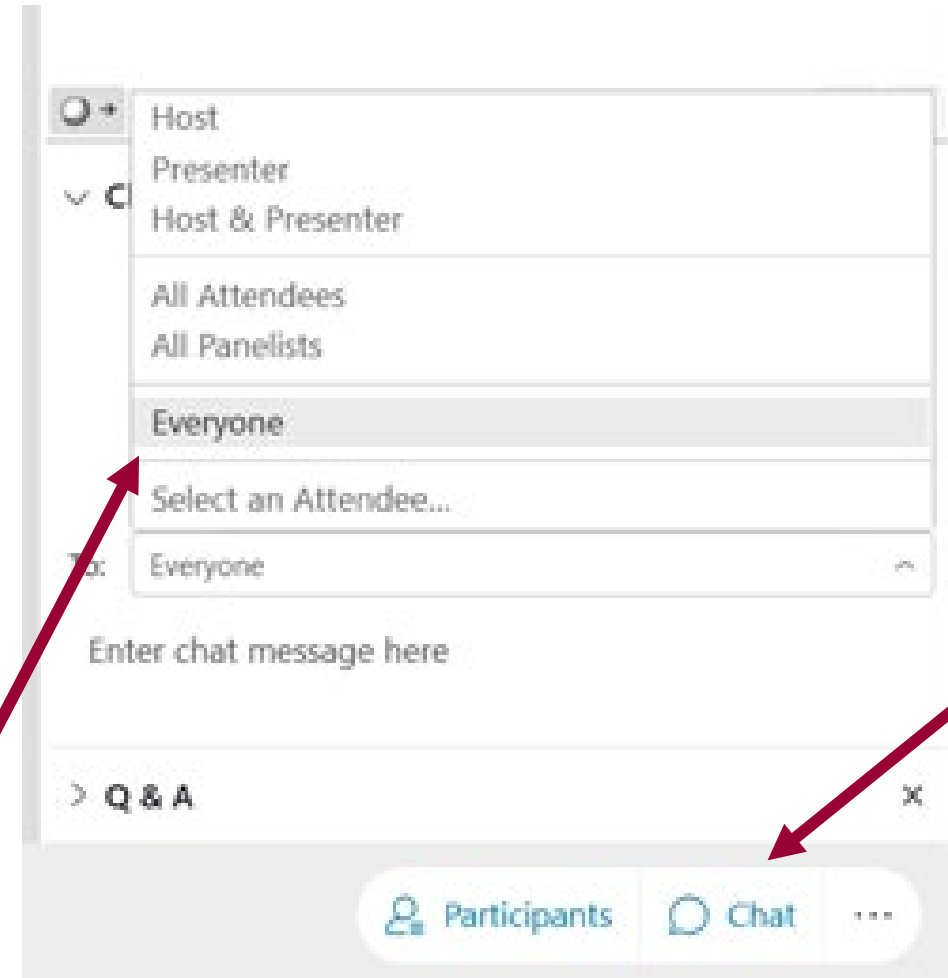
How to Chat

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?

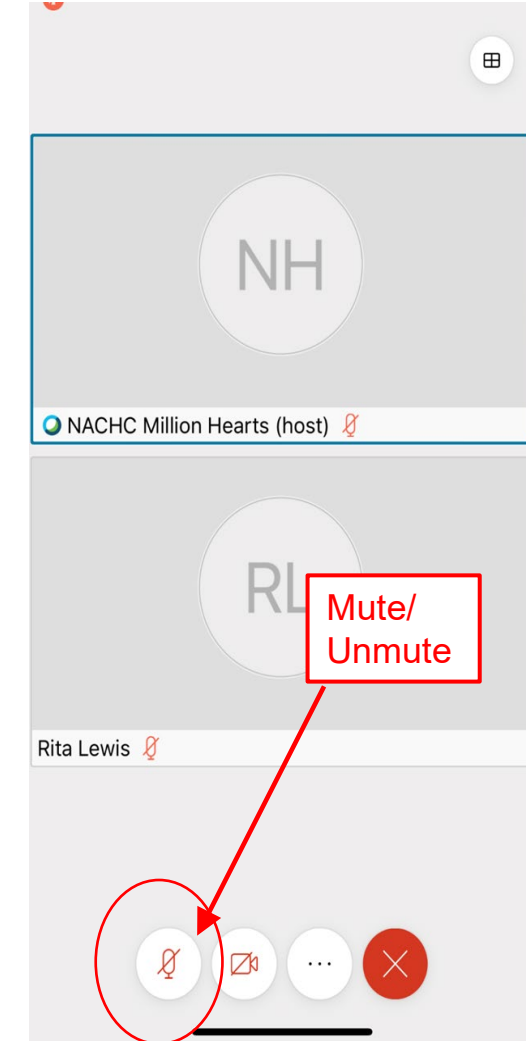
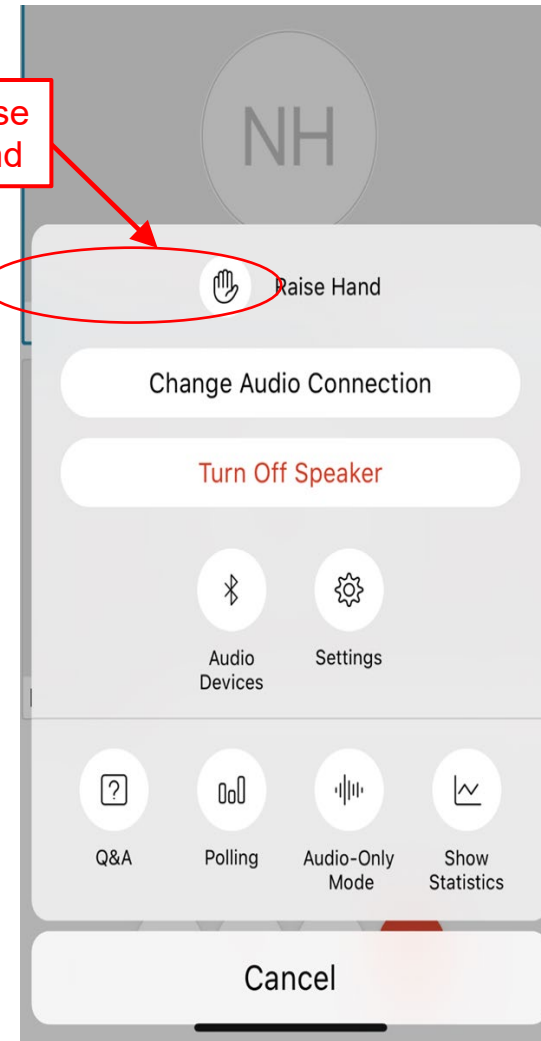
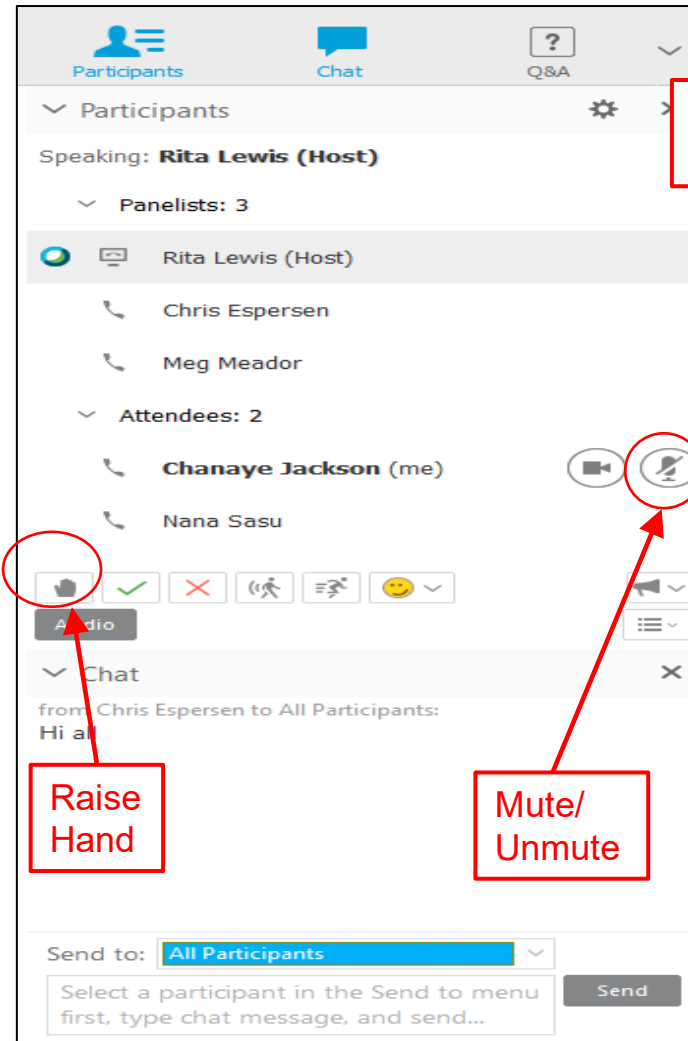


How to Speak and Participate (Computer and Mobile)

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.



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**
 - Danielle Sill, MSPH, Public Health Informatics Institute
 - Meg Meador, MPH, C-PHI, CPHQ, NACHC
 - Diane Fisher, RN, Berks Community Health Center
- **Open Discussion**
- **Additional Resources and Updates**
- **Closing**



Today's Objectives

- Present At-A-Glance document outlining priority features when using patient generated data apps for SMBP
- Share updated SMBP Toolkit and considerations for selecting patient generated data apps for SMBP
- Hear from the field about:
 - How they have optimized SMBP through patient generated data apps
 - Experiences and tips when selecting an app for collecting patient generated SMBP data.



Mentimeter!

Join Directly:

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OR

Go to: www.menti.com

Enter the code: 7182 0677

OR

Use the QR Code →



Attendee Poll #1

What is your level of confidence in being able to select a SMBP telemonitoring software that meets the needs of your health care organization?

- A.** Very confident
- B.** Somewhat confident
- C.** Neutral or N/A
- D.** Somewhat not confident
- E.** Not confident



Attendee Poll #2

What has been/would be your top 2 priorities when selecting a telemonitoring software? (Select up to 2)

- A. Device-manufacturer agnostic
- B. Integration with EHR
- C. Privacy and security is protected
- D. Cost
- E. Clinician dashboard functionality
- F. Patient usability
- G. Other - enter into chat



Selecting SMBP Patient Generated Data Apps



SMBP Health IT Checklist

Danielle Sill, MSPH

September 8, 2022



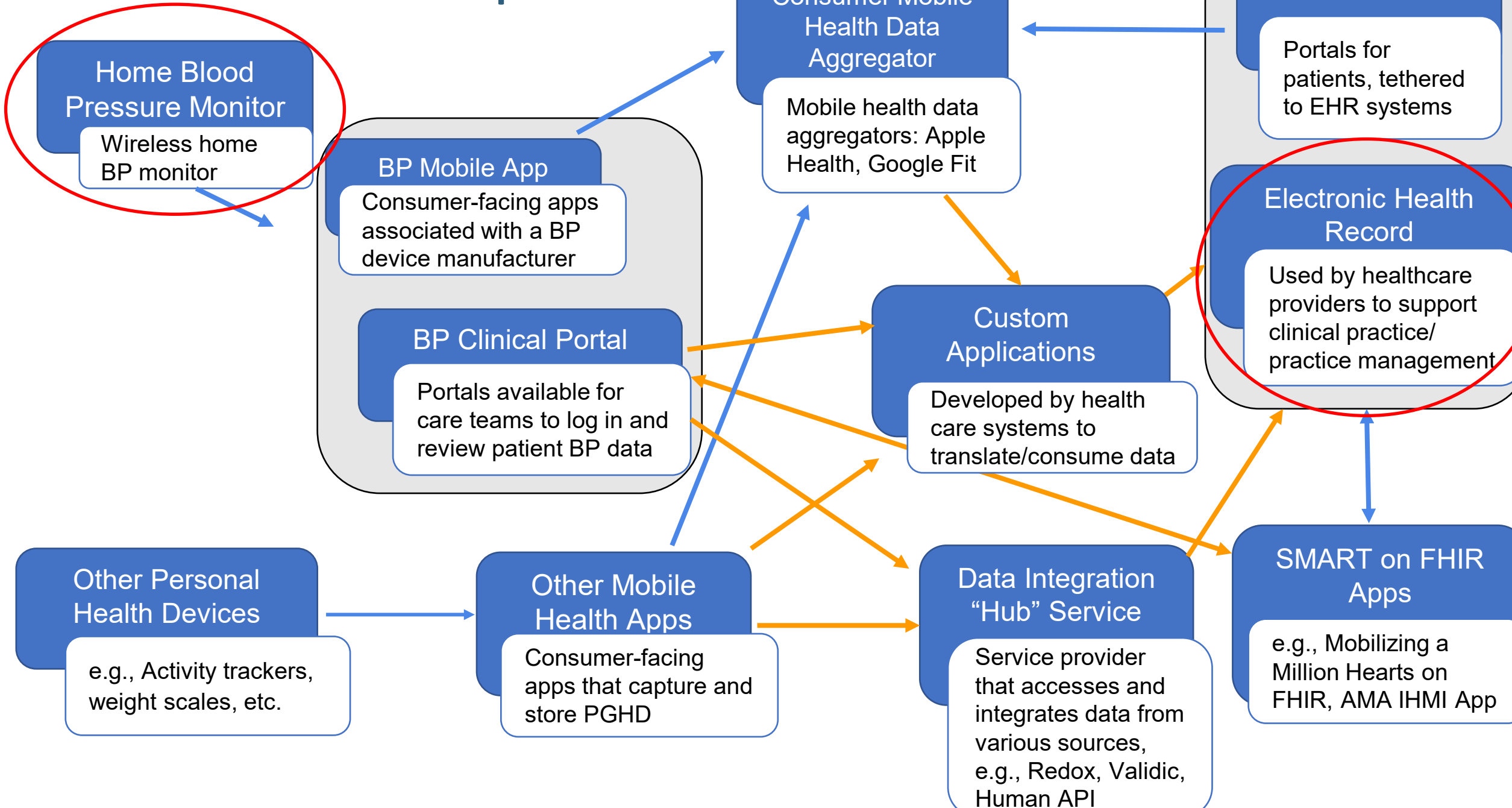
A program of



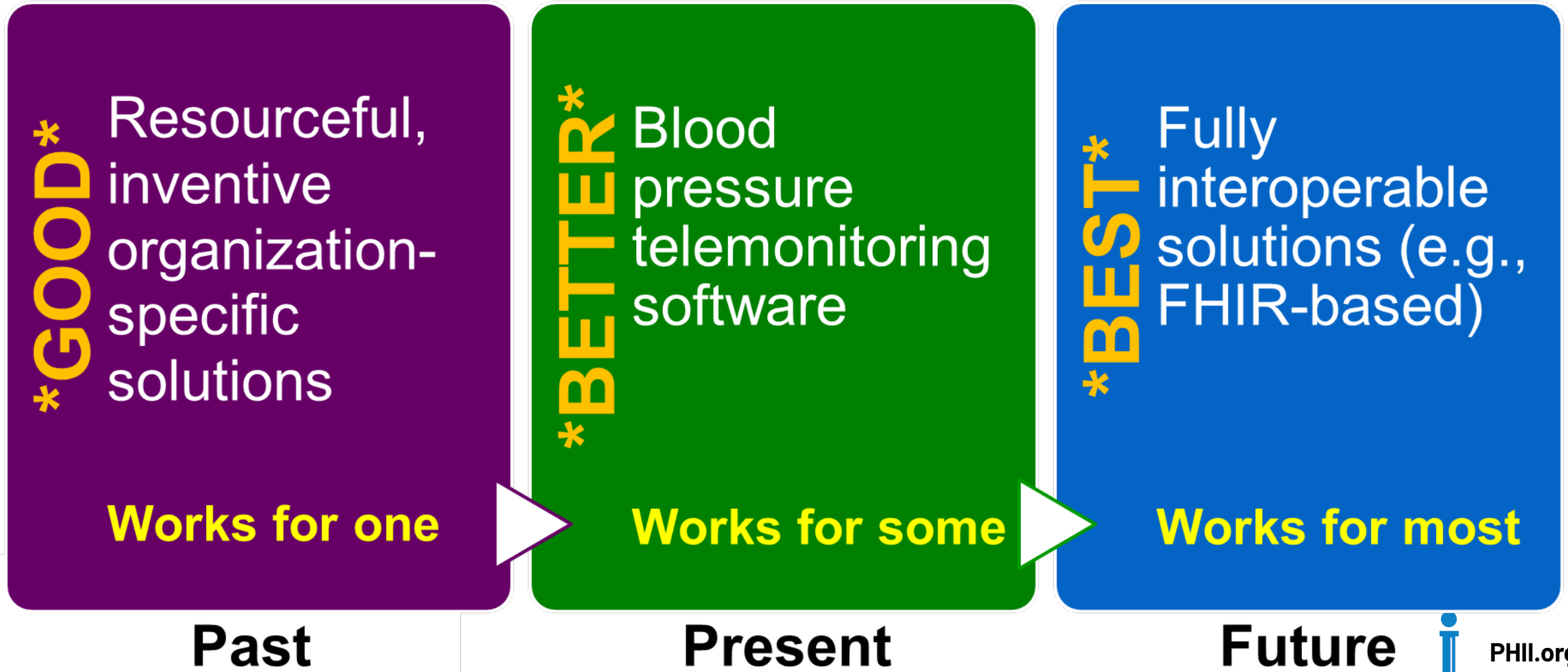
Disclaimer

This work was supported by cooperative agreement number OT18-1802, funded by the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

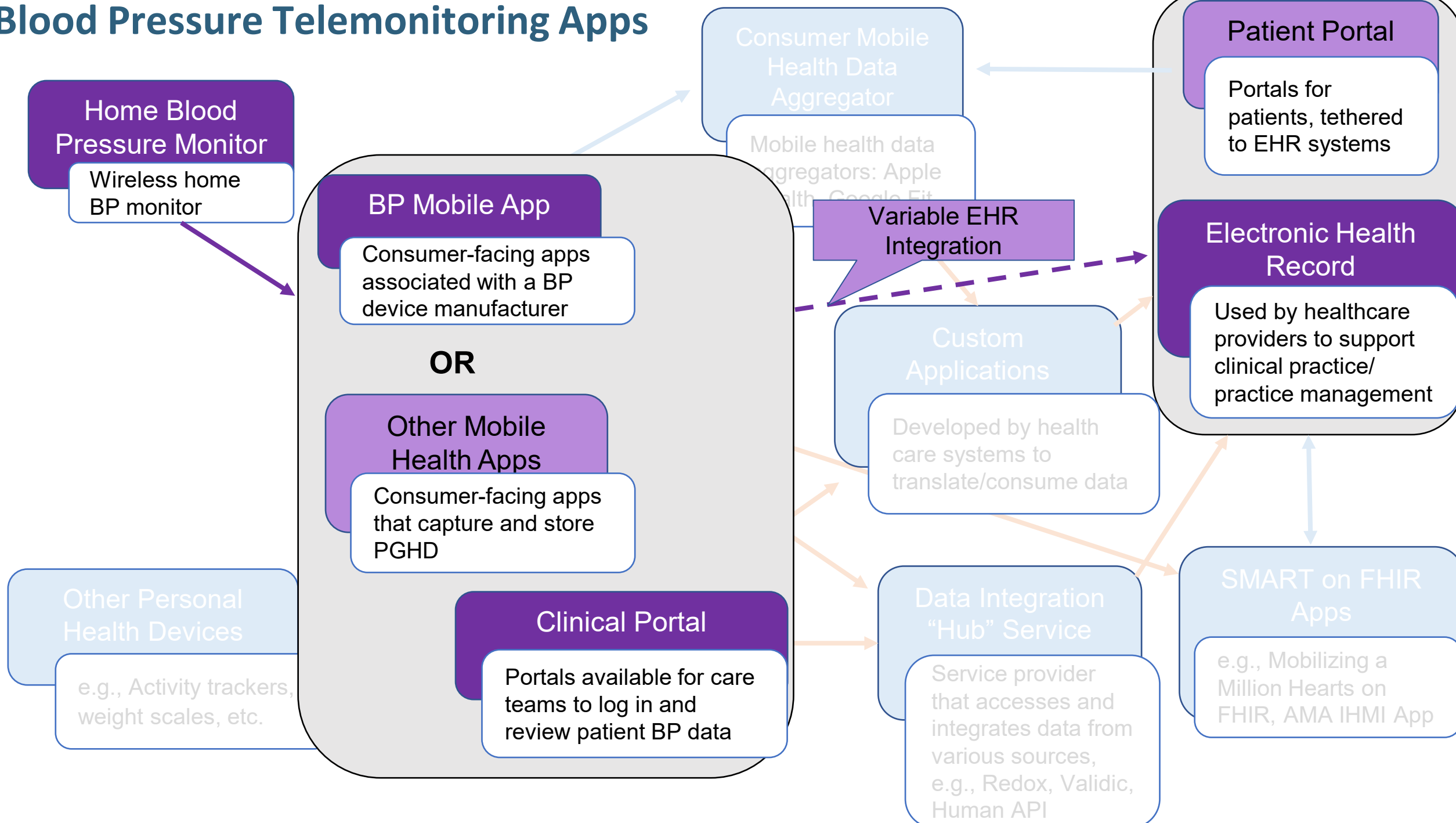
Current SMBP HIT Landscape



Potential Solutions



Blood Pressure Telemonitoring Apps



Home Blood Pressure Monitor
Wireless home BP monitor

BP Mobile App
Consumer-facing apps associated with a BP device manufacturer

OR

Other Mobile Health Apps
Consumer-facing apps that capture and store PGHD

Clinical Portal
Portals available for care teams to log in and review patient BP data

Consumer Mobile Health Data Aggregator
Mobile health data aggregators: Apple Health, Google Fit

Variable EHR Integration

Custom Applications
Developed by health care systems to translate/consume data

Data Integration "Hub" Service
Service provider that accesses and integrates data from various sources, e.g., Redox, Validic, Human API

Patient Portal
Portals for patients, tethered to EHR systems

Electronic Health Record
Used by healthcare providers to support clinical practice/practice management

SMART on FHIR Apps
e.g., Mobilizing a Million Hearts on FHIR, AMA IHMI App

Health IT Checklist for SMBP Telemonitoring Software August 2022

Health IT Category	Characteristics	Select Software Products		
		Sphygmo	Verifi Health/ Sensly (in development)	BPCorrect
Interoperability	Device-manufacturer agnostic	Yes	Yes	Yes
	Demonstrated EHR integration	Yes	No	No
	Data export capability without EHR integration (PDF, .csv)	Yes (PDF, .csv)	Yes (PDF)	Yes (.csv)
	Standards-based – FHIR/API connection	Yes	Yes	No
	Standards-based – Meets HL7 standards	Yes	Yes	No
	Technology support available	Yes	Yes	Yes
General software characteristics	HIPAA compliant	Yes	Yes	Yes
	Available in Android and IOS	Yes	Yes	Yes
	Available in multiple languages besides English	Yes (Spanish, Chinese and French)	Yes (Spanish)	No
	Data ownership	Patient	Patient	Vendor
	Utilizes recommended SMBP protocol	Yes	Yes	Yes
	Flexible monitoring frequency (i.e., supports as-needed monitoring)	Yes	Yes	Yes
	Cost to the organization	\$	TBD	\$
Clinician-specific characteristics	Captures device make/model	Yes	Yes	No
	Configurable clinician dashboard available	Yes	Yes	No
	Able to select numbers of days and readings for average blood pressure	Yes	Yes	No
Patient-specific characteristics	Highlights values that are too high or too low	Yes	Yes	No
	Free to the patient	Yes	Yes	No
	Provides guidance on blood pressure measurement	Yes	Yes	Yes

Health IT Checklist

Provides an overview of select software products in the following categories:

- Interoperability
- General software characteristics
- Clinician-specific characteristics
- Patient-specific characteristics

phii.org/SMBP

Thank you!

Danielle Sill, MSPH

Informatics Analyst II

dsill@phii.org



NATIONAL ASSOCIATION OF
Community Health Centers®

OPTIMIZING MANAGEMENT OF PATIENT-GENERATED DATA FOR SMBP

SMBP Forum

September 8, 2022



RPM VS. SMBP

What is the difference?

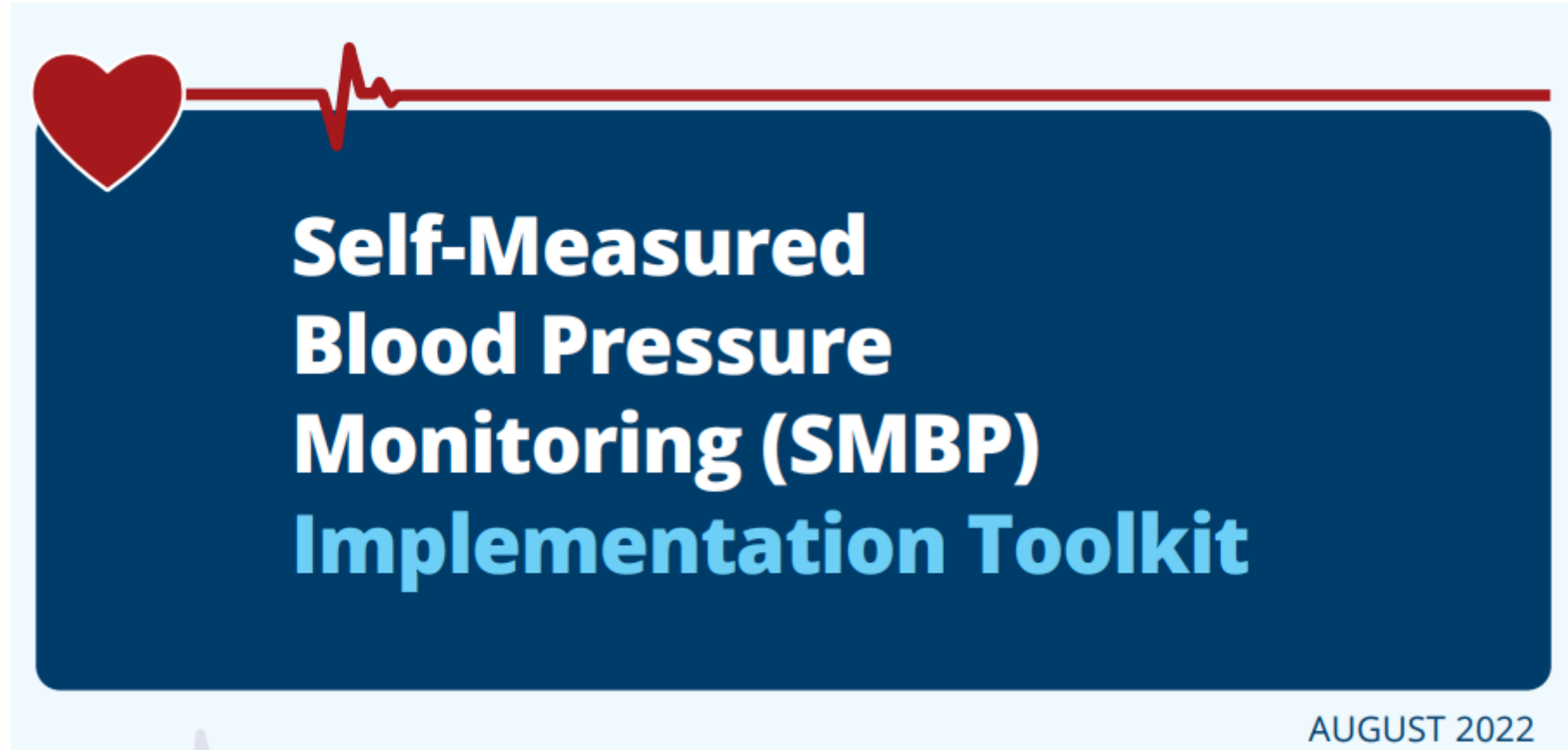
	SMBP	RPM
Definition and uses	<ul style="list-style-type: none"> SMBP monitoring is the regular measurement by the patient outside the clinical setting, usually at home. SMBP can be used to confirm a hypertension diagnosis when in-office BP is elevated or titrate BP-lowering medication. Provides multiple BPs over a longer time period (more representative of patient’s true BP) SMBP can help differentiate between sustained, white coat, and masked hypertension. 	RPM is a system that uses one or more devices to transmit patient-generated health data to healthcare professionals for review.
Target Population	All people with suspected or diagnosed hypertension	People with chronic diseases (e.g., hypertension, diabetes, obesity, asthma, etc.); people who have been recently hospitalized and discharged; complex or frail patients

RPM VS. SMBP (Continued)

What is the difference?

	SMBP	RPM
What health metrics are monitored?	Blood pressure	Many metrics: Blood pressure, glucose, weight, blood oxygen levels, heart rhythm, respiration, insulin levels, activity levels, etc.
What devices are used?	Home BP monitor	Home BP monitor, glucose monitor, scale, ECG, spirometers, inhaler and insulin pen recording devices, activity monitor, etc.
Frequency of Monitoring	As needed, e.g., to titrate medication, averaging at least 3, and ideally up to 7 days of BP measurements. Average BP is used for treatment decisions.	Consistently; 24/7
Reimbursement Requirements	Minimum of 12 BP measurements in a month.	At least 16 <i>days</i> of BP measurements per month with 30-minutes of interpretation and review.

REVISED SMBP TOOLKIT



NACHC Million Hearts[®] Initiative - NACHC

REVISED SMBP TOOLKIT

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.
- 4 Review the important decision criteria for [Optimizing Management of Patient-Generated Data for SMPB Programs](#)

New!



OPTIMIZING MANAGEMENT OF PATIENT-GENERATED DATA FOR SELF-MEASURED BLOOD PRESSURE MONITORING (SMBP) PROGRAMS

A key part of setting up SMBP is deciding how to manage patient-generated data. To ensure your organization is choosing an optimal data management solution/technology partner for use with your home blood pressure devices, it is important to consider the features and functionalities available in various SMBP software options.

REVISED SMBP TOOLKIT

Optimizing Management of Patient-Generated Data for Self-measured Blood Pressure Monitoring

Many home blood pressure devices enable digital data storage and transfer of SMBP data through a cellular or Wi-Fi network to a cloud-based web portal for use by the care team.



SMBP software vendors may offer an array of integration capabilities with electronic health records (EHRs) or population health management systems.



REVISED SMBP TOOLKIT

Optimizing Management of Patient-Generated Data for Self-measured Blood Pressure Monitoring

DECISION CRITERIA:

The criteria below indicate features of SMBP patient-facing applications, clinical team web portals, and EHR integration capabilities that organizations can consider when deciding which SMBP software solution/vendor to choose.

■ Clinical Team-facing Application/Web Portal

- Configurable dashboard view (e.g., the ability to sort patients by BP reading, status, clinical site, etc.)
- Supports basic analytics
 - Number of patients enrolled
 - Baseline BP on enrollment



REVISED SMBP TOOLKIT

Optimizing Management of Patient-Generated Data for Self-measured Blood Pressure Monitoring

■ Patient-facing Application

Essential

- HIPAA compliant
- Supports android and IOS
- Free to the patient

Nice to Have

- Device-manufacturer agnostic
- Supports reasonable literacy level to enhance patient understanding
- Available in multiple languages with the possibility of adding languages as needed



REVISED SMBP TOOLKIT

Optimizing Management of Patient-Generated Data for Self-measured Blood Pressure Monitoring

■ Integration of SMBP Software with EHRs (and/or Population Health Management Systems)



■ Potential for EHR integration that includes:

- Seamless enrollment from the EHR (receives demographic data from the EHR and recognizes if the patient has already been enrolled through this practice or through another practice and creates the clinical portal enrollment automatically and as indicated)
- The ability to send structured data available (average BP as well as individual values (yes/no))
- The ability to receive critical information from the EHR e.g., problem list information, medications
- Customizable clinician notification cadence/content
- Configurable trigger for sending BP values

REVISED SMBP TOOLKIT

Optimizing Management of Patient-Generated Data for Self-measured Blood Pressure Monitoring

■ EHR Configuration Factors



Another important component of optimizing management of patient-generated data for SMBP is setting up the EHR to receive data from the clinical team-facing application. Most EHRs today do not have standard places ready to ingest SMBP data, but they can be custom configured either at the practice level or by the EHR vendor. Below are a list of essential and nice-to-have data fields to support SMBP:

Essential structured data fields:

- Average BP (labeled as such) separate and distinct from a single BP measurement
- Number of BP readings that constitute the average
- The highest and lowest measurement in the set
- Date range for the BP readings that constitute the average

SMBP Patient Generated Data Collection in Practice



Making SMBP Work: Data, Integration, and Workflow Solutions to Optimize Self-measured Blood Pressure Monitoring Implementation

Diane Fisher, RN
Berks Community Health Center



Sphygmo Clinical Portal

<https://app.sphygmobp.com/a/p/patients>



Patient List

See all enrolled patients in this view
All columns are sortable

+ Add Patient

↓ Export Patient List

Filter by Condition

Edit Column Fields

Patient List Showing 1-50 of 122 Units: BP: mmHg

<input type="checkbox"/>	Patient ID	Patient Name	Mean SBP 3 D (mmHg)	Mean DBP 3 D (mmHg)	Mean SBP 7 D (mmHg)	Mean DBP 7 D (mmHg)	Mean SBP 30 D (mmHg)	Mean DBP 30 D (mmHg)	BP Alerts 7 D	Date of Last BP	Groups
<input type="checkbox"/>	study 1021	Bree Judkin	181	127	182	126	181	125		Dec 31, 2019	Witt Hensley
<input type="checkbox"/>	4968182678	Bob Marley	183	125	183	125	184	127		Dec 30, 2019	Witt Hensley
<input type="checkbox"/>	0208604405	Josias Hennington	172	123	173	120	171	118		Dec 29, 2019	Witt Hensley
<input type="checkbox"/>	0789268582	Taber Bridgestock	168	117	168	117	167	116		Dec 31, 2019	Witt Hensley
<input type="checkbox"/>	6082193105	Ambrosio Roch	162	115	163	116	163	113		Dec 29, 2019	Witt Hensley
<input type="checkbox"/>	8120654633	Thaddus Chaldecott	165	111	166	115	164	114		Dec 30, 2019	Witt Hensley
<input type="checkbox"/>	2839043203	Launce Brennon	161	114	158	113	158	110		Dec 30, 2019	Witt Hensley
<input type="checkbox"/>	8243388117	Margalit Mannagh	162	112	162	112	162	112		Dec 31, 2019	Witt Hensley
<input type="checkbox"/>	3746113520	Huntington Knee	159	110	160	110	159	111		Dec 31, 2019	Witt Hensley
<input type="checkbox"/>	0570040006	Audrey D	160	100	150	110	157	110		Dec 30, 2019	Witt Hensley

- All
- Blood Pressure
- Pulse Rate
- Glucose
- Weight
- Respiratory Rate
- Body Temperature
- Oxygen Saturation

Unviewed Readings

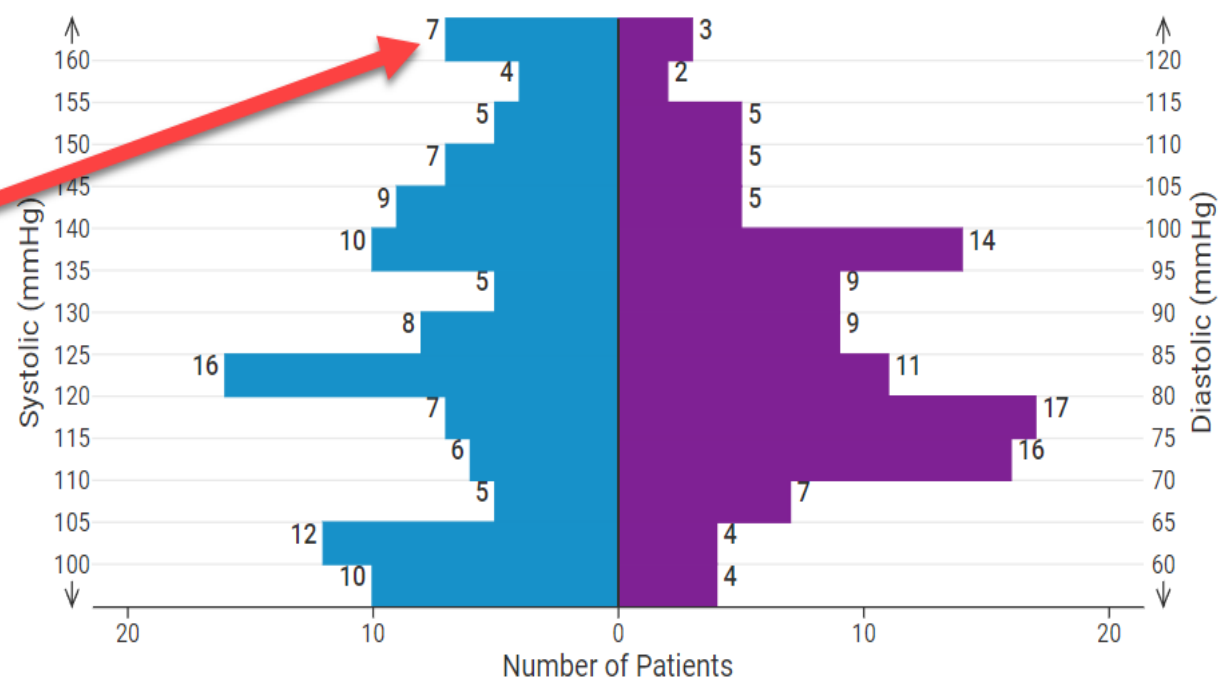
Name	Actions
<p>Masatake Eto </p> <p>Male, born May 30, 1947 (75 y.o.)</p> <p>45 Unviewed Readings Diabetes Vascular Disease</p>	<input type="button" value="▼"/>
<p>John Smith SAMPLE </p> <p>Male, born September 13, 2009 (12 y.o.)</p> <p>1 Unviewed Reading</p>	<input type="button" value="▼"/>
<p>andhnc smt </p> <p>Male, born February 12, 1977 (45 y.o.)</p> <p>34 Unviewed Readings</p>	<input type="button" value="▼"/>

Newly Linked Patients

Name	Actions
<p>Johnny Smith SAMPLE </p> <p>Other, born June 10, 2015 (7 y.o.)</p>	<input type="button" value="▼"/>
<p>Fabiola Díaz Carvallo </p> <p>Female, born March 20, 1987 (35 y.o.)</p> <p>Diabetes Vascular Disease</p>	<input type="button" value="▼"/>
<p>Tessy Ciciotti </p>	<input type="button" value="▼"/>

Practice Overview is a dashboard that can be used by enrollment specialists and care navigators to help prioritize their tasks

Blood Pressure **123**



Glucose **123**

mmol/L

mg/dL



Masatake Eto

Summary **BP & HR** Glucose Vitals [Dropdown] Graphs Reports Messages Session History

[Series Icon] Series [Med Change] [Summary Icon] Summary [+ Report] Save

Current Session **00:35** Cumulative (30 days) **00 h 26 m**

Swipe Avg Single Readings 24 hr View

Clinicians can use this view to get a more detailed understanding of the Average BP

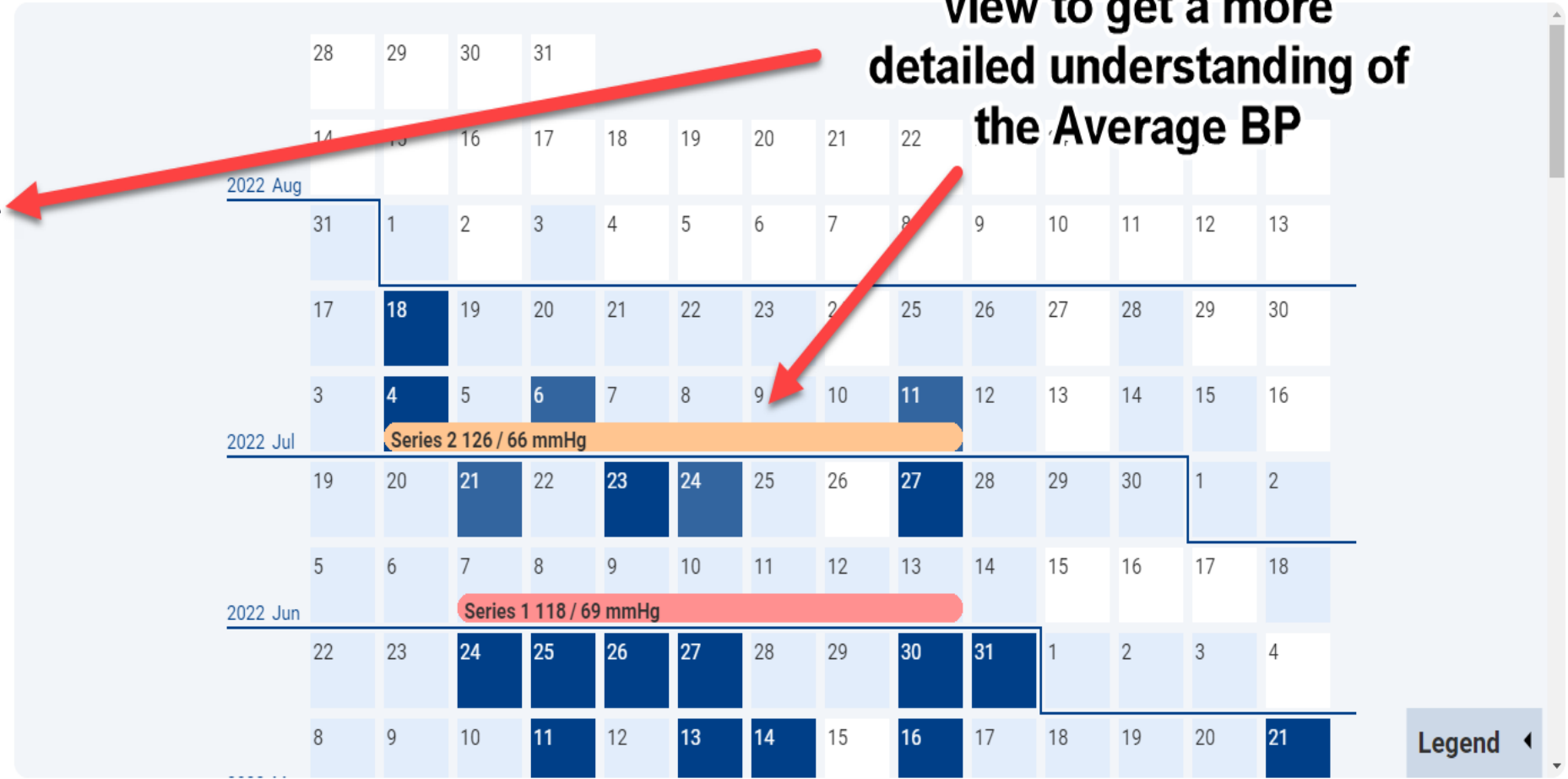
02 Series 02 [Trash Icon]
From: Jul 04 2022 To: Jul 11 2022

No.	Type	BP (mmHg)	HR (bpm)
20	Avg	126 / 66	68
04	[Gear Icon]	143 / 53	56
16	[Moon Icon]	121 / 70	71

Exclude first day Show details [Dropdown]

01 Series 01 [Trash Icon]
From: Jun 07 2022 To: Jun 13 2022

No.	Type	BP (mmHg)	HR (bpm)
18	Avg	118 / 69	68
07	[Gear Icon]	112 / 67	71
11	[Moon Icon]	122 / 70	66



Legend [Dropdown]

Interactions: ⚠

Forms Text

Forms Add...

Hypertension Assessment -

Attachments Add...

Favorites Add

Blank image

Sphygmo Test 62 Years Old Male (DOB: 01/01/1960)

Home Phone Cell Phone Email Language PCP Responsible Prov Insurance
 (781) 333-2020 Demo10, Provider Jennifer Monahan Best Health Insurance Company (Futura)

Sphygmo
by MMS

Reason for Visit: Initial Consult Follow Up
 Completed by: Nurse
 Last Visit Date: 05/20/2022
 Chief Complaint: Hypertension

Risk Factors
 Smoking Status: never smoker
 Vape use: Current
 Alcohol Use: yes Amount per day: 2
 Drug Use: no

Current Lifestyle
 Diet: Breakfast: Skips Lunch: Sandwich Dinner: Takeout Snacks: Candy Drinks: Diet Coke
 Salt Intake: High

Current Labs
 HGBA1C: 6.1 05/06/2022
 HGBA1C POC:
 TC: 144 05/20/2022
 LDL: 169 05/06/2022
 HDL: 22 05/06/2022
 include in note

Considerations for Treatment
 Hypertension

Med Adherence Issues
 Forgets to take
 Reviewed medications that affect BP

Physical Findings - In Office Blood Pressure 155/86 05/06/2022
 Height 60.00 in. 152.40 cm. 05/06/2022 **Prior**
 Weight 239.00 lbs. 108.41 kg. 05/06/2022 **Prior**
 BMI 46.85 BSA 2.02
 Pulse Rate Pulse Rhythm

Sphygmo Blood Pressure
 Dates: -
 # of recordings: **Graph**
 Average: /
 High: /
 Low: /
 Cuff Mfr/ Size: /
 Sphygmo BP: Reviewed N/A

Assessment/Plan
 Hypertension ICD10-I10
 Status: Uncontrolled
 Plan: Enroll Patient in Sphygmo SMBP Program AMLODIPINE BESYLATE 10 MG ORAL TABLET
 Re-assess in: 1 month

SMBP Program: Status:

Medications
 HTN Medications
Problems
 Description ICD-10
 Strep throat J02.0
 Hypertension I10

Allergies
 Appointments
 Immunizations
 Preventative Care

Previous Form (Ctrl+PgUp) Next Form (Ctrl+PgDwn)

Home Phone Cell Phone (781) 333-2020 Email Language PCP Demo10, Provider Responsible Prov Jennifer Monahan Insurance Best Health Insurance Company (Futura)



Reason for Visit: Initial Consult (selected), Follow Up. Completed by: Nurse. Last Visit Date: 05/20/2022. Chief Complaint: Hypertension.

Risk Factors: Smoking Status: never smoker, Vape use: Current, Alcohol Use: yes, Amount per day: 2, Drug Use: no.

Current Lifestyle: SMBP Program: Status:

Considerations for Treatment: Hypertension

Med Adherence Issues: Forgets to take. Reviewed medications that affect BP.

Physical Findings - In Office: Blood Pressure 155/86 05/06/2022. Height 60.00 in, 152.40 cm. Weight 239.00 lbs, 108.41 kg. BMI 46.85, BSA 2.02. Pulse Rate, Pulse Rhythm.

Assessment/Plan: Hypertension ICD10-I10. Status: Uncontrolled. Plan: Enroll Patient in Sphygmo SMBP Program. AMLODIPINE BESY. Re-assess in: 1 month.

Tobacco Use dialog box. Last Update: 05/20/2022. Reviewed (checked). Smoked Tobacco Use: Current, Former, Never (selected), Unknown. Smoking Status: never smoker. Vape Use: Current, Former, Never, Unknown. times per day: 3. Smokeless Tobacco Use: Current, Former, Never (selected), Unknown. Tobacco use comments: Couseled to quit/cut down. Exposure to smoke: Passive Smoke Exposure: yes, no (selected). Close button.

Attachments, Favorites (Blank image), Previous Form (Ctrl+PgUp), Next Form (Ctrl+PgDwn), Immunizations, Preventative Care.

Interactions:

Forms

Forms Add...

Hypertension Assessment -

Attachments Add...

Favorites Add

Blank image

Main

Sphygmo Test 62 Years Old Male (DOB: 01/01/1960)

Home Phone Call Phone (781) 333-2020 Email Language PCP Demo10, Provider Responsible Prov Jennifer Monahan Insurance Best Health Insurance Company (Futura)

Reason for Visit: Initial Consult Follow Up
 Completed by: Nurse
 Last Visit Date: 05/20/2022
 Chief Complaint: Hypertension

Risk Factors
 Smoking Status: never smoker
 Vape use: Current
 Alcohol Use: yes Amount per day: 2
 Drug Use: no

Current Lifestyle
 Diet: Breakfast: Skips Lunch: Sandwich Dinner: Takeout Snacks: Candy Drinks: Diet Coke

Current Labs
 HGBA1C: 6.1 05/06/22
 HGBA1C POC:
 TC: 144 05/06/22
 LDL: 169 05/06/22
 HDL: 22 05/06/22
 include in note

Med Adherence Issues
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Physical Findings - In Office
 Blood Pressure 155/86 05/06/2022
 Height 60.00 in. 152.40 cm. 05/06/2022
 Weight 239.00 lbs. 108.41 kg. 05/06/2022
 BMI 46.85 BSA 2.02
 Pulse Rate Pulse Rhythm

Sphygmo Blood Pressure
 Dates: -
 # of recordings:
 Average:
 High:
 Low:
 Cuff Mfr/Size:
 Sphygmo BP: Reviewed N/A

Assessment/Plan
 Hypertension ICD10-I10
 Status: Uncontrolled
 Plan: Enroll Patient in Sphygmo SMBP Program
 Re-assess in: 1 month
 AMLODIPINE BESYLATE 10 MG ORAL TABLET

SMBP Program: Status:
Medications
 Description Instructions
 PENICILLIN V POTASSIUM 250 MG ORAL TABLET
 Take 1 Tablet By Mouth 1 Times Daily

HTN Medications
 Problems
 Allergies
 Appointments
 Immunizations
 Preventative Care

Click to add Medication Adherence Problems

Med Adherence

Medication Adherence Problem

None

Cost

Forgets to take

Frequency

Lack of understanding

Side effects

Too many meds

Other:

Close

Sphygmo Test 62 Years Old Male (DOB: 01/01/1960)

Home Phone Call Phone (781) 333-2020 Email Language PCP Demo10, Provider Responsible Prov Jennifer Monahan Insurance Best Health Insurance Company (Futura)



Reason for Visit: Initial Consult Follow Up

Completed by: Clinical Pharm

Last Visit Date: 05/06/2022

Chief Complaint: HTN Assessment Followup

Risk Factors

Smoking Status: never smoker

Vape use: Current

Alcohol Use: yes
Amount per day: 2

Drug Use: no

Current Lifestyle

Diet:
Breakfast: Skips
Lunch: Sandwich
Dinner: Takeout
Snacks: Candy
Drinks: Diet Coke

Salt Intake: High

Considerations for Treatment

Hypertension

Med Adherence Issues

Forgets to take

Reviewed medications that affect BP

Current Labs

HGBA1C: 6.1 05/06/2022

HGBA1C POC:

TC: 144 05/20/2022

LDL: 169 05/06/2022

HDL: 22 05/06/2022

include in note

Physical Findings - In Office

Blood Pressure 155/86 05/06/2022

Height 60.00 in. 05/20/2022
60.00 in. 152.40 cm. **Prior**

Weight 239.00 lbs. 05/20/2022
239.00 lbs. 108.41 kg. **Prior**

BMI 46.85 BSA 2.02

Pulse Rate Pulse Rhythm

Self Monitored Blood Pressure

Dates: 5/14/2022 - 05/20/2022

of recordings: 48 **Graph**

Average: 124 / 86

High: 132 / 95

Low: 111 / 76

Cuff Mfr/Size:

Sphygmo BP: Reviewed N/A

Assessment/Plan

SMBP Program: Status:

Medications

HTN Medications

Description	Instructions
AMLODIPINE BESYLATE 10 MG ORAL TABLET	Take 1 Tablet By Mouth 1 Times Daily

Problems

Allergies

Appointments

Immunizations

Preventative Care

Interactions:

Forms Text

Forms Add...

Hypertension Assessment -

Attachments Add...

Favorites Add

Blank image

Main

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 Amount per day: 2
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Considerations for Treatment
 Hypertension

Med Adherence Issues
 Forgets to take
 Reviewed medications that affect BP

Physical Findings - In Office Blood Pressure 155/86 05/06/2022

Height	60.00 in. 05/06/2022	#1	/		mm Hg
60.00 in.	152.40 cm. Prior	#2	/		mm Hg
Weight	239.00 lbs. 05/06/2022	#3	/		mm Hg
239.00 lbs.	108.41 kg. Prior	#4	/		mm Hg

BMI 46.85 BSA 2.02 Pulse Rate bpm Pulse Rhythm

Assessment/Plan
 Hypertension ICD10-I10
 Status: Uncontrolled
 Plan: Enroll Patient in Sphygmo SMBP Program
 Re-assess in: 1 month
 AMLODIPINE BESYLATE

Assess

Blood Pressure Assessment/Goals 1
Problem:

Status: Controlled Uncontrolled

Plan:

- Maintain current therapeutic regiment
- Medication changes recommended
- Needs high intensity statin
- Needs updated labs
- Schedule patient for labs
- Needs additional therapy
- Suboptimal drug selection

Medications:

- AMLODIPINE BESYLATE 10 MG ORAL TABLET
- PENICILLIN V POTASSIUM 250 MG ORAL TABLET

Goals:

Education Provided: Yes No

Re-assess in:

Schedule for:

Referral to:

New Orders

Record Clear All Fields

*Click Record button to save entered values to Assessment fields

Previous Form (Ctrl+PgUp) Next Form (Ctrl+PgDwn)

Sphygmo Test 62 Years Old Male (DOB: 01/01/1960)

Home Phone Cell Phone Email Language PCP Responsible Prov Insurance
(781) 333-2020 Demo10, Provider Jennifer Monahan Best Health Insurance Company (Futura)



Reason for Visit: Initial Consult Follow Up
Completed by:
Last Visit Date:
Chief Complaint:

Risk Factors
Smoking Status: never smoker
Vape use: Current
Alcohol Use: yes
Amount per day: 2
Drug Use: no

Considerations for Treatment

Med Adherence Issues

Physical Findings - In Office
Height 60.00 in. 05/20/2022
Weight 239.00 lbs. 05/20/2022
BMI BSA
Blood Pressure 155/86 05/05/2022
Pulse Rate Pulse Rhythm

Assessment/Plan

BP Recording

Blood Pressure
Previously Recorded Values:

	05/24/2022	05/23/2022	05/22/2022	05/21/2022	05/20/2022
SMBP Systolic #1	165	155	156	155	158
SMBP Diastolic #1	94	86	85	88	89
SMBP Systolic #2	164			149	160
SMBP Diastolic #2	92			85	84
Recorded by					Recorded...

Record New Values:

Date: BP#1: / BP#2: /

Self Monitored Blood Pressure Average
 7 days 14 days 30 days
 back from: Calculate
 Dates: -
 # of recordings:
 Average: /
 High: /
 Low: /

Record Clear All Fields

Preventative Care

Interactions:

Forms Text

Forms Add...

Hypertension Assessment -

Attachments Add...

Favorites Add

Blank image

Main

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Completed by:

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Chief Complaint:

Risk Factors

Smoking Status: never sm
Vape use: Current

Alcohol Use: yes
Amount per day: 2

Drug Use: no

Considerations for Treatment

Med Adherence Issues

Reviewed medications that

Physical Findings - In Office Blood Pressure 155/86

Height 60.00 in. 05/20/2022 #1 / m

in. cm. **Prior** #2 / m

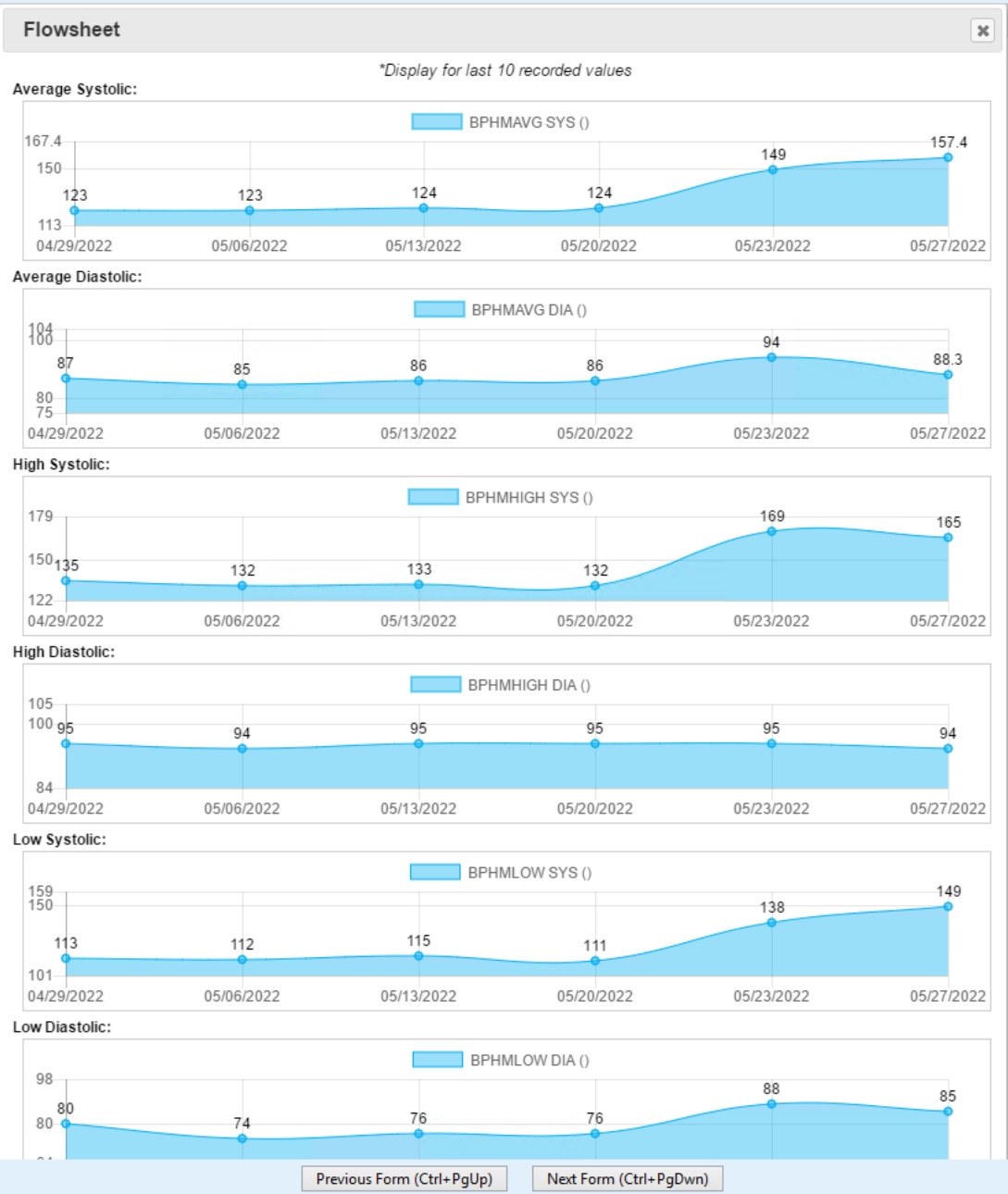
Weight 239.00 lbs. 05/20/2022 #3 / m

lbs. kg. **Prior** #4 / m

BMI BSA Pulse Rate Pulse

bpm

Assessment/Plan



SMBP Program Documentation

The screenshot displays a medical software interface for a patient's SMBP Enrollment. The top navigation bar includes tabs for Orders, Medications, Problems, Medication, and Problem. The main content area is divided into several sections:

- Interactions:** Includes buttons for Forms and Text.
- Forms:** A list of forms including 'Hypertension Assessment' and 'Departments Communicatic'.
- Reason for Visit:** Initial Consult
- Assessment Completed by:** Digital Navigator
- Date of last office visit:** 08/03/2022
- Chief Complaint:** Test
- Considerations for Treatment:** Test
- Medication Adherence Issues Identified:** Too many meds, Transportation
- Reviewed medications that affect BP**
- Medications reviewed**
- Tobacco Use:** Smoking Status: current some day smoker; Cigarettes: yes, 3 packs per day, Year Started: 2020; Cigars: yes, 4 per week, Year Started: 2022; Pipes: yes, 1 times per week, Year Started: 2022; Vape use: Current 3 times per day; Smokeless tobacco use: Current 4 per day, Year Started: 2022; Tobacco Use Comments: Test3; Passive Smoke Exposure: yes; Counseled to quit/cut down
- Alcohol Use:** Alcohol Use: no; Type: Beer, Amount per day: 1-3.
- Drug Use:** Substance/Drug Use: no; Type: Amphetamine, Cocaine, Ecstasy, Hash, Heroin, Inhalant, LSD, Marijuana, Meth, Opioid, PCP.
- Digital Assessment:** Created/Assisted customer with email
- Immunization history reviewed with patient. Recommended Vaccines.**
- Preventative care maintenance reviewed with patient during encounter.**
- Physical Findings - In Office:** Height: 65 in [165.10 cm]; Weight: 140 lbs [63.50 kg]; BMI: 23.38 kg/m2; BSA: 1.70 m2
- Blood Pressure:** Reading 1: 190/90 mm Hg; Pulse Rate: 62 bpm; Pulse Rhythm: regular
- Assessment/Plan:** 1. Lack of Housing ICD10-Z59.1; Medications: BLOOD PRESSURE KIT, lithium carbonate 300 mg capsule, lithium carbonate 300 mg capsule, lithium carbonate 300 mg capsule; Status: Uncontrolled
- Plan:** Maintain current therapeutic regimen
- Goals:** Test 4
- Education provided:** Yes
- Re-assess in:** 1 month
- Schedule for:** RN Visit
- Referral to:** Cardiology



Impact of SMBP Program

- Address uncontrolled HTN more efficiently and effectively and patient reaches control quicker
- Fewer cardiology referrals
- Improved HTN medication prescribing
- Standardized documentation
- Improved patient adherence
- Enhanced communication amongst care team members and patients
- Better utilization of technological systems



Q&A and Open Discussion



Resources



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	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
					LARGE CUFF SIZE (arm circumference range in inches)	XL CUFF SIZE							
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.

Updates



Featured Webinar Recording

[Fixed-Dosed Combination Antihypertensive Medications Coverage: A Review of Resources for Health Centers - Zoom \(zoomgov.com\)](#)

DATE: Thursday, September 1, 2022

TIME: 3:00PM-4:00PM ET

Objectives:

- Learn about the effectiveness and availability of covered fixed-dose combination (FDC) for managing patients with hypertension
- Connect with subject matter experts and key national partners
 - Use Case: Mercy Care (HRSA-funded health center in Atlanta, GA)
- Explore opportunities to increase FDC use

Suggested Pre-work: Review the [Fixed-Dose Combination Antihypertensive Medication Coverage: By State Medicaid and Medicaid Managed Care Organizations](#)



Upcoming Million Hearts and Partner Events

Date/Time	Title	Host	Live Audience	URL
September 12, 2022	Million Hearts Collaboration Flu Vaccine Campaign Launch	National Forum For Heart Disease & Stroke Prevention	All partners	Website
September 28, 2022 3:00-3:45pm ET	Million Hearts Learning Lab: Treating Patients with Hypertension: What's the Rx?	CDC/NACHC	All partners	Website
November 3, 2022 12:00-1:00pm ET	Introduction to the Million Hearts Climate Change & Cardiovascular Disease Collaborative (CCC)	OCCHC	All partners	Registration Link
December 8, 2022 1:00-2:00pm ET	SMBP Forum: Revising Maternal Health and SMBP	CDC/NACHC	All partners	Registration Link

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

Million Hearts® LEARNING LAB

A bi-monthly mixed methods learning series focused on cardiovascular disease prevention and management topics. CME credits available.



SESSION 7 | 9/28/2022 | 3:00 - 3:45 pm ET

Treating Patients with Hypertension: What's the Rx?

More sessions to come! Details coming soon.

REGISTER TODAY!

Access required session resources and learn more about the Million Hearts® Learning Lab



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



Thank You!

The next SMBP Forum: Revising Maternal Health and SMBP to be held December 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.

