

HOW WE IMPLEMENT THE SMBP PROGRAM



WE ARE A PRIVATELY OWNED MEDICAL CORPORATION WITH FOUR (4) ARMS TO IDENTIFY PATIENTS WITH HIGH BLOOD PRESSURE THAT NEED SMBP ENROLLMENT AND CARE

1. OCCUPATIONAL MEDICINE
2. DIRECT PRIMARY CARE FOR EMPLOYERS AND THEIR WORK FAMILIES EXCLUSIVELY
3. CORPORATE HEALTH AND WELLNESS PROGRAMS FOR EMPLOYERS
4. TRADITIONAL FAMILY/PEDIATRIC MEDICAL CARE PRACTICE

TYPES OF EMPLOYERS WE PROVIDE MEDICAL SERVICES FOR CURRENTLY (1-3) (HEALTH INSURANCE NOT UTILIZED):

- RIVER INDUSTRY
- NATIONAL TRUCKING/SEMI COMPANIES
- CHEMICAL /INDUSTRIAL PLANTS
- DEPARTMENT OF ENERGY/NUCLEAR FACILITIES
- CONSTRUCTION FIRMS
- MUNICIPALITIES
- FIRST RESPONDER SERVICES (FIRE, LAW ENFORCEMENT, EMS)
- NON-PROFIT ORGANIZATIONS (CHURCHES AND SERVICE BASED GROUPS)

TRADITIONAL FAMILY/PEDIATRIC MEDICAL CARE PRACTICE (4) (HEALTH INSURANCE IS UTILIZED)

HOW WE UTILIZE TECHNOLOGY WITHIN THE SMBP PROGRAM

- ALL MEDICAL ARMS FUNNEL PATIENTS REQUIRING SMBP MONITORING TO WELLNESS DIVISION VIA OUR EMR SYSTEM
 - PROVIDERS DENOTE BP GOALS, FREQUENCY TAKING BP DESIRED, REPORTING TIMELINES DESIRED
 - PROVIDERS UTILIZE A PRESCRIPTION PAD THAT WAS DEVELOPED BY KHDSP (KY Heart Disease & Stroke Prevention Program)
- BLUE-TOOTH BP CUFFS ARE PLACED ON PATIENTS WITH TRAINING BY THE CORPORATE WELLNESS DIVISION
 - CONNECTED TO THE ONLINE/SMARTDEVICE APP SO DAILY MONITORING MAY OCCUR BY STAFF
 - THOSE NOT DESIRING APP USAGE MAY UTILIZE PAPER BP LOGS THAT ARE COLLECTED WEEKLY
- PATIENT REPORTS GENERATED FOR PROVIDERS, ON SCHEDULE REQUESTED, FOR ADJUSTING CARE PLANS
 - REPORTS MAY BE GENERATED ON ANY DATE RANGE REQUESTED (HIGHEST BP, LOWEST BP, AVERAGE, TIME OF READINGS)
 - MEDICATIONS ARE ADJUSTED BASED ON REPORTS (TYPES OR NUMBER OF MEDICATIONS, TIMES MEDICATIONS SHOULD BE TAKEN, ORDERING OF ADDITIONAL DIAGNOSTICS IF NEEDED)
- PATIENTS ARE COMMUNICATED WITH THROUGH SEVERAL MEANS ON AT LEAST A MONTHLY BASIS (FACE TO FACE CARE, PHONE CALLS, TEXTS WITH PERMISSION)

Kentucky Regional Extension Center Services

UK's Kentucky REC is a trusted advisor and partner to healthcare organizations, supplying expert guidance to maximize quality, outcomes and financial performance.

Kentucky REC Description



To date, the Kentucky REC's activities include:

- Assisting more than 5,000 individual providers across Kentucky, including primary care providers and specialists
- Helping more than 95% of the Federally Qualified Health Centers (FQHCs) and Rural Health Clinics (RHCs) within Kentucky
- Working with more than 1/2 of all Kentucky hospitals in Promoting Interoperability, HIPAA, and Quality Improvement
- Supporting practices and health systems across the Commonwealth with practice transformation and success in value-based payment

Physician Services

1. HIPAA SRA, Project Management & Vulnerability Scanning
2. Patient Centered Medical Home (PCMH) Consulting
3. Patient Centered Specialty Practice (PCSP) Consulting
4. Value Based Payment & QPP Support
5. Quality Improvement Support
6. Telehealth Services

Hospital Services

1. Promoting Interoperability (Formerly Meaningful Use)
2. HIPAA SRA, Project Management & Vulnerability Scanning
3. Hospital Quality Improvement Support

Kentucky Regional Extension Center: Health Innovation Advisors



Brent McKune
Managing Director



Alicia Anderson



Kelly Fountain
MPA

Robin Curnel
MSN, RN



Vance Drakeford
MHI
PCMH CCE



Jessica Elliott

Lacy Shumway



Rebecca Cheatham



Megan McIntosh



Vicky Hardin



Kristina Feathers
RHIA



Michelle Hibbard



Amy Daley
CHPS



Mary Luvisi

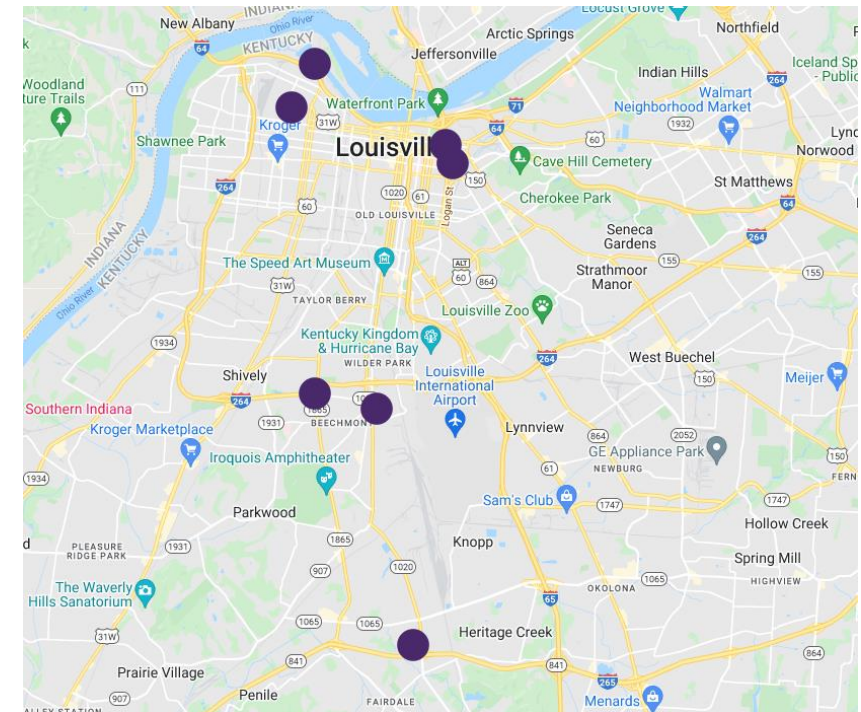


Family Health Centers

- Federally Qualified Health Center
- 7 locations in medically underserved areas of Louisville
- 40,000+ patients; 130,000+ visits annually
- Services
 - Primary medical care
 - Lab, Radiology, Pharmacy, Dental, Behavioral Health, Substance Abuse, Social Services, Health insurance application assistance, Interpreter services, Housing assistance
 - Health Education, Clinical Pharmacy

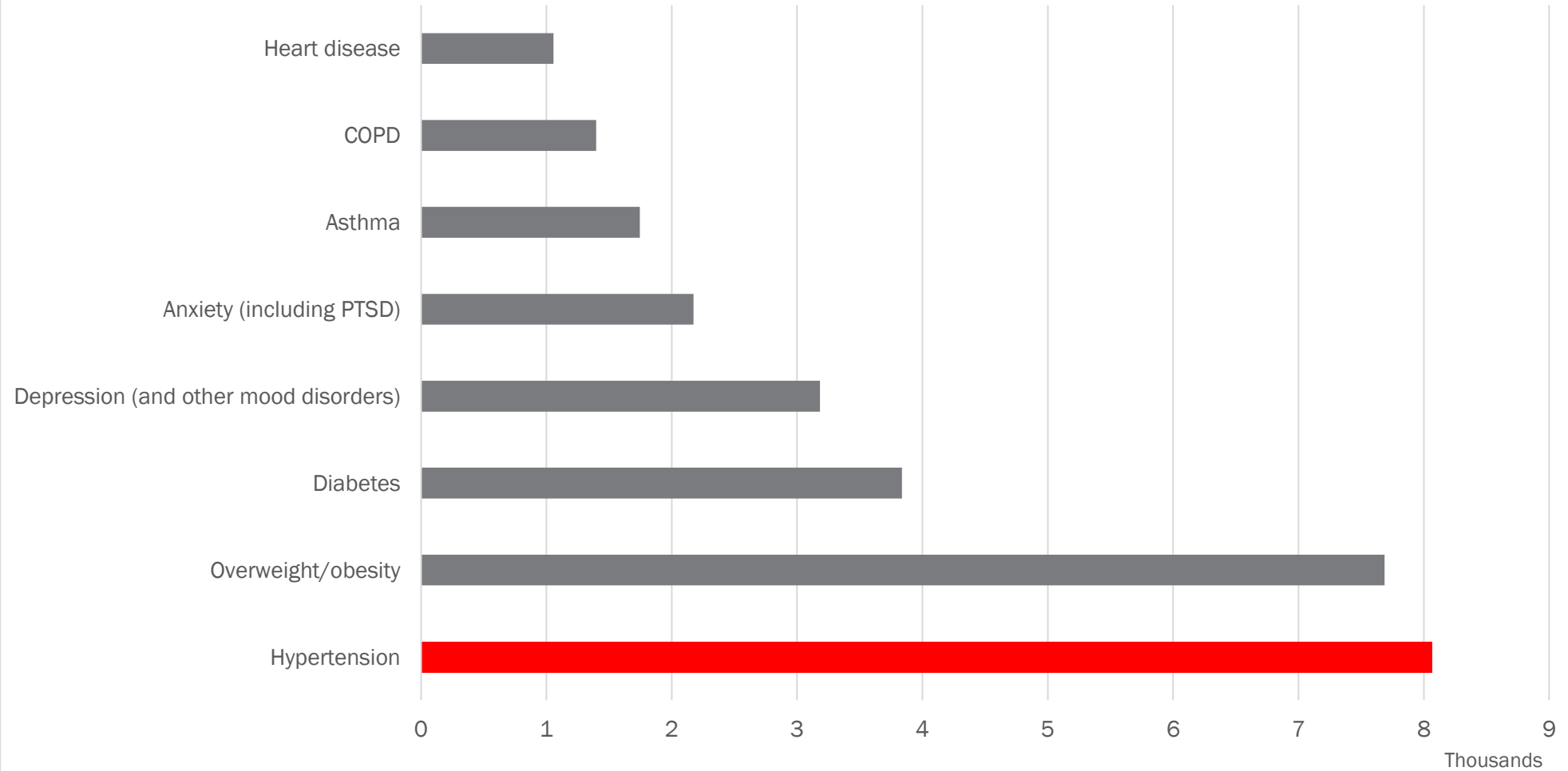


Family Health Centers



Family Health Centers

Common Diagnoses



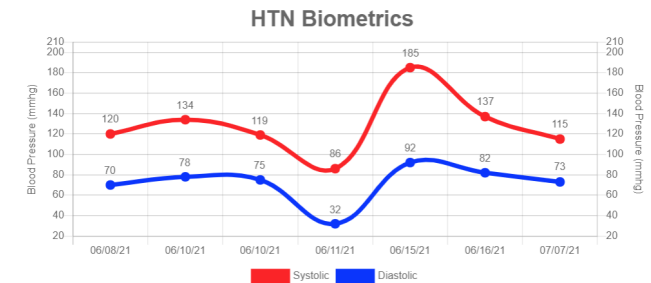
Family Health Centers

BP at Home

- HRSA grant to provide 4,365 patients with HTN (controlled or uncontrolled) with home BP monitors and use home readings in patient treatment plans
- SMBP
 - Provide information about HTN, color zones, benefits of sharing home readings with PCP, medication and lifestyle changes
 - Depth of patient education varies greatly by participant
- Use of HIT, EHR
 - Lab EHR: provider referrals; tracking patient enrollment
 - RPM via CAREMINDr: patients transmit home readings to FHC daily via phone app; care management of flagged home readings; messaging to patients within the app
 - EHR: scanned images of electronic or hand-written home logs; communication with PCP about patient readings, adjustments to treatment plan, and follow up appointments



BP at Home



Family Health Centers

BP at Home +

- CDC grant with HDSP and UofL for team-based care to patients with uncontrolled HTN; also provides home BP monitors and uses home readings in patient treatment plans
- SMBP
 - Provide detailed information to all participants about HTN, color zones, benefits of sharing home readings with PCP, medication and lifestyle changes
- Use of HIT, EHR
 - EHR: provider referrals, patient appointment reminders, documentation of patient encounters, scanned images of hand-written home logs, communication with PCP about patient readings, adjustments to treatment plan, and follow up appointments
 - MEND Telehealth: video appointments
 - REDCap: data entry and analysis

BP at Home: Enrollment



- Patient presents for medical visit in primary care or women's health
- Patient has a diagnosis of hypertension
 - Controlled OR **uncontrolled**
- Provider recommends SMBP to inform treatment plan
- Patient agrees to
 - Take BP readings at home
 - Send BP readings to FHC
 - Follow up with PCP to review BP readings
- Provider completes forms in EHR
- Patient goes to Lab for cuff
- Patient schedules 1 month follow up appt. with PCP

"BP at Home" HTN Program Referral

Pt eligible if: 1 dx w/ HTN 2 not prev enrolled in program.
If pt consents to check BP at home, do lab order for BP Cuff or BP Cuff XL and check box below.

Y FHC BP at Home Program Referral

If declines, check box below

Y FHC BP at Home Program Referral Pt Declines

BP at Home: Education



- Program phone number and email are provided



Welcome to BP at Home!

Your new blood pressure cuff will help you and your health provider take care of your health. Follow the steps below:

- Learn about high blood pressure.**
 - Handout: Understanding High Blood Pressure (pg. 2)
 - Videos: click on "Understanding High Blood Pressure" at our website
- Check your BP at least 1 time every day with your cuff. Use your phone to collect 1 reading a day so we can see it.****
 - Handouts: Taking Your Blood Pressure (pg. 3)
 - How to Measure Your BP at Home (pg. 4)
 - Videos: click on "Taking Your Blood Pressure" at our website
 - **If you are not able to use your phone for your BP readings (it's easy, we promise!), use the BP log on pg. 5 and bring it to your next appointment.
- Come to your follow up appointment** with your health provider to review your home readings and make plans for keeping your blood pressure in control. Bring your **blood pressure cuff and medications.**

DATE: _____ TIME: _____

When you have questions or need help:

- > Call: (502) 772-8585
- > Email: bpathome@fhclouisville.org
- > Go to: www.fhclouisville.org/bpathome



Trade: _____



Understanding High Blood Pressure

What is high blood pressure?

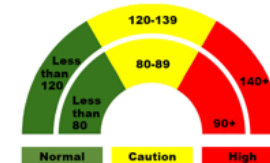
- Your heart is a muscle that squeezes 60 to 80 times a minute to pump blood into your blood vessels, which are like pipes leading from your heart to every part of your body. Your vital organs depend on the constant supply of oxygen and nutrients from your blood.
- Blood pressure (BP)** is the force of your blood pushing on the walls of your blood vessels as it moves through them. You need some pressure to help your blood reach every part of your body, but if the pressure is too high, it can damage the walls of your blood vessels and put extra strain on your heart.
- When you have **high blood pressure** (also called **hypertension**), you must take steps to control your blood pressure and prevent serious health problems like:
 - Stroke
 - Heart attack or heart failure
 - Kidney problems
 - Vision changes and blindness



Knowing your numbers

The first step to controlling your BP is knowing your numbers. An example BP is 125/85.

- The first number is your **systolic** BP. It is the pressure in your blood vessels when your heart is pumping. The outer band of this rainbow shows what your systolic BP should be: Normal = less than 120, Caution = 120-139, and High = 140 or more.
- The next number is your **diastolic** BP. It is the pressure when your heart is resting in between beats. The inner band of this rainbow shows what your diastolic BP should be: Normal = less than 80, Caution = 80-89, and High = 90 or more.



Most people cannot feel when their BP is too high. **The only way to know your numbers is to check.** Your health provider will measure your BP at the office, but knowing your numbers in between visits is very important. Checking your BP every day at home helps you and your health provider:


- Know your BP patterns
- Know whether your medicines are working
- See the benefits of healthy eating, physical activity, and stress relief on your BP
- Know if your BP is so high that you should call your doctor or go to the hospital

SOURCE: American Heart Association



BP at Home: Education





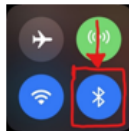
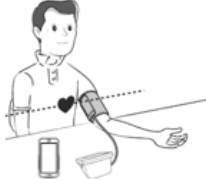


Taking Your Blood Pressure

BP at Home

When you picked up your blood pressure cuff in the FHC Lab, you should have gotten help installing the **CAREMIND** app on your phone. If so, you are ready to follow these instructions! If not, call us at (502) 772-8585.

- 1. Find a place to sit with your:**
 - a. Back supported
 - b. Feet on the floor
 - c. Arm bare and resting on a table
 - d. Phone and cuff handy
- 2. Put on your cuff:**
 - a. Cuff should be slightly above the bend in your elbow
 - b. Cord will be on the inside of your arm, going down towards your wrist
 - c. Cuff should be snug with about 1 finger fitting between arm and cuff
 - d. Cord should be plugged into the monitor
- 3. Get your phone ready:**
 - a. Check your phone settings to make sure Bluetooth is on
 - b. Open the **CAREMIND** app
 - c. Click on the unread message



[Greater Goods cuff]

How to measure your blood pressure at home

Follow these steps for an accurate blood pressure reading

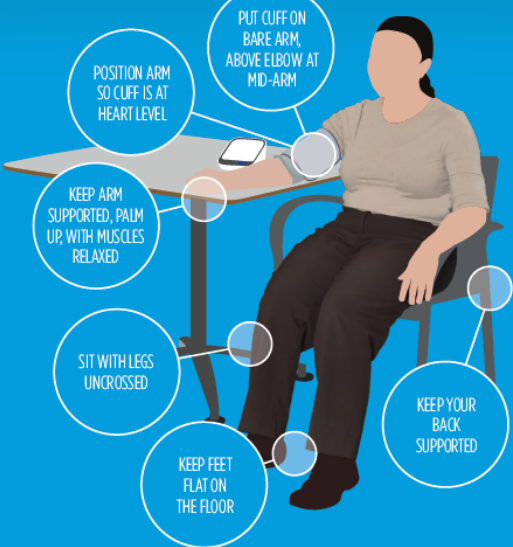
- 1 PREPARE**

Avoid caffeine, cigarettes and other stimulants 30 minutes before you measure your blood pressure.

Wait at least 30 minutes after a meal.

If you're on blood pressure medication, measure your BP **before** you take your medication.

Empty your bladder beforehand.

Find a quiet space where you can sit comfortably without distraction.
- 2 POSITION**
 - PUT CUFF ON BARE ARM, ABOVE ELBOW AT MID-ARM
 - POSITION ARM SO CUFF IS AT HEART LEVEL
 - KEEP ARM SUPPORTED, PALM UP, WITH MUSCLES RELAXED
 - SIT WITH LEGS UNCROSSED
 - KEEP FEET FLAT ON THE FLOOR
 - KEEP YOUR BACK SUPPORTED
- 3 MEASURE**

Rest for five minutes while in position before starting.


Take two or three measurements, one minute apart.

Keep your body relaxed and in position during measurements.

Sit quietly with no distractions during measurements—avoid conversations, TV, phones and other devices.

Record your measurements when finished.

TARGET:BP

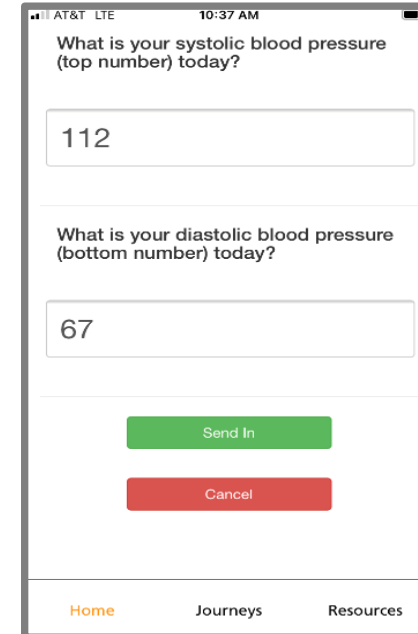
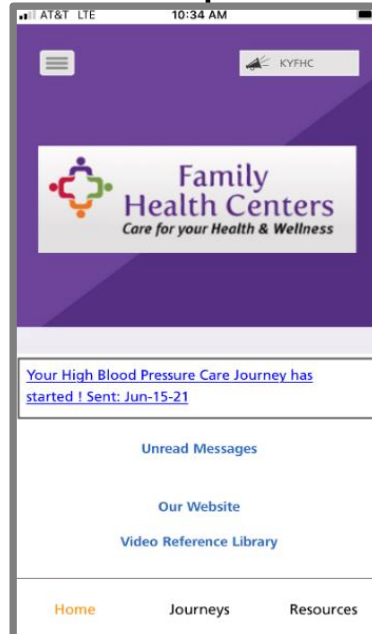


- Available in English, Spanish, other languages



BP at Home: RPM


- CAREMINDr phone app
 - Daily reminder to take BP; records readings
 - Asks patient about medication adherence, HTN symptoms
 - Transmits patient information to FHC via online dashboard
 - Settings for warning, critical, emergency alerts
 - Available in English and Spanish



BP at Home: RPM



- CAREMINDr dashboard with alerts


Logged in as: kmunroleighton@fhclouisville.org, KML | [Logout](#)

Export

 Search ▼
Reset

Sts: Open ▼
Revr: KML ▼
Pt#: 459826

Filter by Alerts ▼
Most Recent ▼

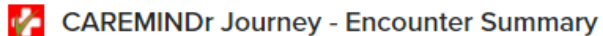
!	Pt#: 437382	Sts: Resolved	Revr: EL
Hypertension with daily blood pressure S7G4Q7 12:22pm 09/13/21			
kyfhcpc			
!	Pt#: 16788	Sts: Resolved	Revr: EL
Hypertension with daily blood pressure P4W4Z5 12:03pm 09/13/21			
kyfhcpc			
!	Pt#: 433164	Sts: Resolved	Revr: None
Hypertension with daily blood pressure B9F2N7 10:53am 09/13/21			
kyfhcpc			
!	Pt#: 459826	Sts: Open	Revr: KML
Hypertension with daily blood pressure X9J2R6 1:40pm 09/13/21			
BP: 142/86 kyfhcpc			
!	Pt#: 302347	Sts: Resolved	Revr: None
Hypertension with daily blood pressure P4F9E8 12:35pm 09/13/21			
BP: 137/91 kyfhcpc			

JOURNEY INFO
COMMENTS
EVENTS

Sent-in On: 1:40pm 09/13/21
 Journey: Hypertension with daily blood pressure
 Started: 10:24am 07/29/21

Pt. Initials: VS
Pt. Gender: Male
PMHID#: 266397

Pt. Birth Year: 1952
Provider Code: PO
Group: None



Office: Family Health Centers - Portland App Code: kyfhcpc

Pt#: 459826VS-PO Birth: 1952 Gender: Male T-Code: X9J2R6

Journey: Hypertension with daily blood pressure

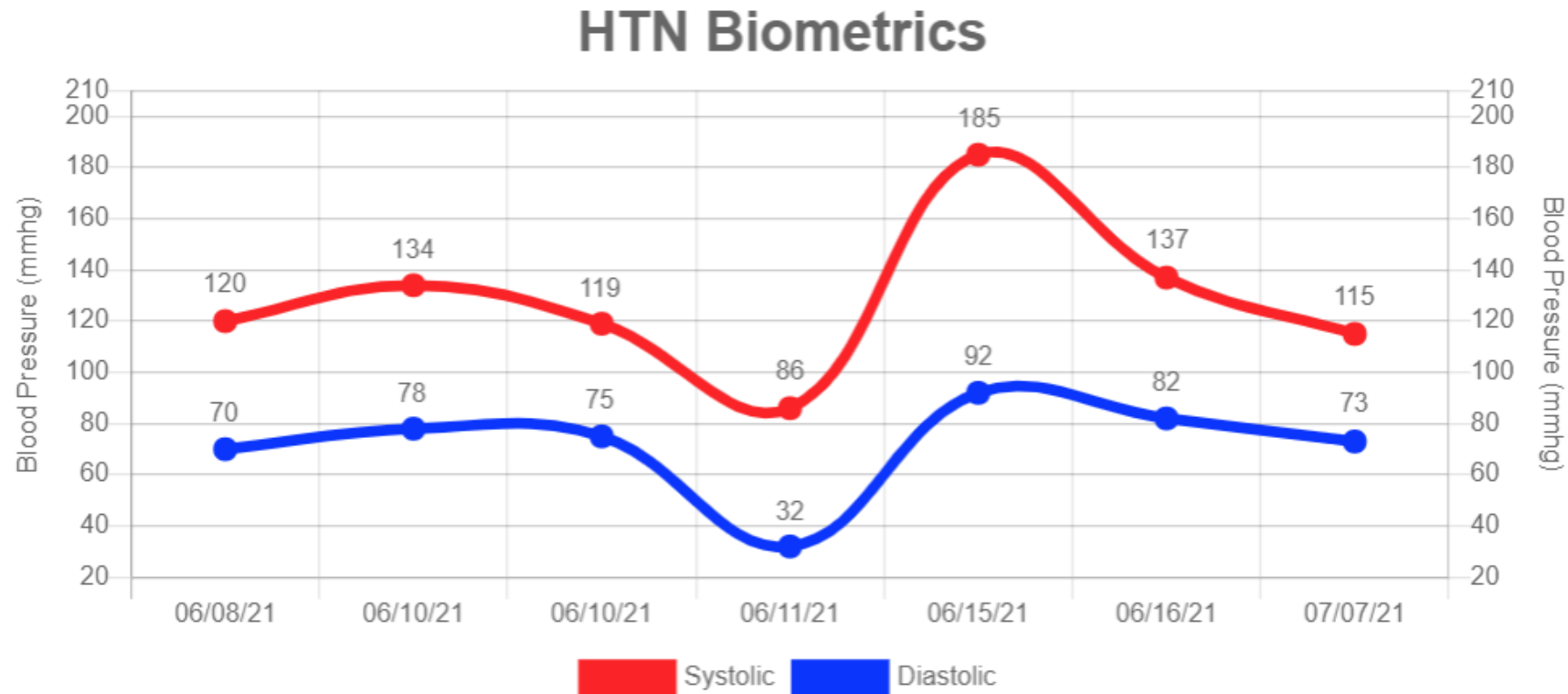
Low	Low	Low	High	High	High
Emerg	Crit	Warn	Warn	Crit	Emerg
85/50	90/60	95/65	140/90	160/100	180/120

SENT-IN BY USER ON: 1:40 pm 09/13/21 (EDT)



BP at Home: RPM

- Graph, average SBP/DBP





BP at Home: RPM


- Home BP reading response rubric

BP reading	PCP appt. scheduled	Action
IN CONTROL <140/90	Yes	None
	No	None
Warning 140/90 to 159/99 (2 readings in 1 week)	Yes	None
	No	Call patient to schedule PCP appt.
	Yes / more than 4 weeks out	
Critical 160/100 to 179/119 (2 readings in 1 week)	Yes / within 2 weeks	Send Task to PCP
	No	Call patient to schedule asap PCP appt. or urgent care appt.; Send Task to PCP
	Yes / more than 2 weeks out	
Emergency ≥180/120	Yes / any	Call patient to schedule asap PCP appt. or urgent care appt.; Provide scripted instructions on symptoms that warrant ED visit; Send Task to PCP
	No	Call patient to schedule asap PCP appt. or urgent care appt.; Provide scripted instructions on symptoms that warrant ED visit; Send Task to PCP

BP at Home: Paper log



- English/Spanish patient cannot or will not use phone app

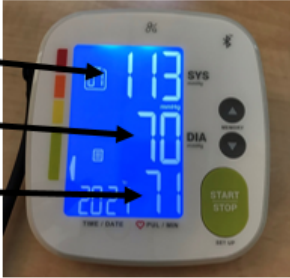


BLOOD PRESSURE LOG


** not needed if you are tracking your numbers with your phone **

BP at Home

- Use your blood pressure cuff to check your blood pressure every day for ~~at least 1 week before your follow up appointment with your health provider.~~ Each time you take your blood pressure, make sure you are ready (see pg. 4) and have your log and pen handy. Write down the date, time, and your blood pressure numbers:
 - The top number on the screen is the systolic blood pressure (SYS).
 - The middle number is the diastolic blood pressure (DIA).
 - The bottom number is your pulse.



- Share your readings with your health provider:
 - Bring this paper to your follow up appointment.
 - QR, call us and we can help you send a picture of your log to your health provider before your follow up appointment.
 - QR, call us at (502) 772-8585 to switch to tracking your home blood pressures on your phone! (It's easy, we promise!)
- Call FHC right away if your readings are too high: (502) 774-8631.
 - If your systolic blood pressure (SYS) is 180 or higher.
 - OR, if your diastolic blood pressure (DIA) is 120 or higher.


Family Health Centers

(Greater Goods cuff)

[patient/abe]

HOME BLOOD PRESSURE LOG

DATE	TIME	SYS (top #)	DIA (bottom #)	PULSE
	Morning			
	Evening			
	Morning			
	Evening			
	Morning			
	Evening			
	Morning			
	Evening			
	Morning			
	Evening			
	Morning			
	Evening			

**** Bring this log to your next appointment with your health provider ****

BP at Home: Paper log



Other languages

ارتفاع ضغط الدم (الضغط العالي) High Blood Pressure (Hypertension)

Blood pressure is the force put on the walls of the blood vessels with each heartbeat. Blood pressure helps move blood through your body.

Taking Your Blood Pressure

Blood pressure is often checked by putting a wide band called a cuff around your upper arm. Air is pumped into the cuff. Your blood pressure is measured as the air is let out of the cuff.

Blood pressure is one number over a second number. You may hear your doctor say 110 over 72 (110/72), for example.

- The top number is higher and is called the systolic reading. It is the pressure in the blood vessels when the heart pumps.
- The bottom number is lower and is called the diastolic reading. It is the pressure in the blood vessels when the heart rests between beats.

Normal Blood Pressure

Normal blood pressure is a top number less than 120 (systolic) and a bottom number less than 80 (diastolic). Each person's blood pressure changes from hour to hour and from day to day.

High Blood Pressure

High blood pressure is also called hypertension. High blood pressure is 130 or higher over 80 or higher. There are different stages of high blood pressure, based on how high your numbers are.

ضغط الدم هو القوة التي تقع على جدران الأوعية الدموية مع كل نبضة من نبضات القلب. و ضغط الدم يساعد على انتقال الدم بين أجزاء الجسم.

قياس ضغط الدم

يتم قياس ضغط الدم في الغالب بوضع شريط عريض يسمى "الكُم المظلم" حول الجزء العلوي من الذراع، ثم يتم ضخ الهواء في هذا الكُم. ويتم قياس ضغط الدم أثناء السماح للهواء بالخروج من الكُم.

ضغط الدم عبارة عن رقم فوق رقم آخر. على سبيل المثال، قد تسمع طبيبك يقول 110 على 72 (110/72).

- الرقم الأعلى يكون أكبر من الرقم الأسفل ويسمى "القراءة الانقباضية". ويحذر هذا الرقم عن الضغط في الأوعية الدموية عندما يقوم القلب بضخ الدم.
- أما الرقم الأسفل فيكون أقل من الرقم الأعلى ويسمى "القراءة الانبساطية". ويحذر هذا الرقم عن الضغط في الأوعية الدموية عندما يستريح القلب بين النبضات.

ضغط الدم العادي

يكون ضغط الدم طبيعياً عندما يكون الرقم العلوي أقل من 120 (الانقباضي) والرقم السفلي أقل من 80 (الانبساطي). ويتفاوت ضغط الدم من شخص لآخر. حيث يتغير ضغط الدم لكل شخص من ساعة إلى ساعة ومن يوم إلى يوم.

ارتفاع ضغط الدم

يكون ضغط الدم مرتفعاً إذا كان قياسه 130 على 80 أو أكثر. وهناك مراحل مختلفة من ارتفاع ضغط الدم، استناداً إلى مدى ارتفاع الأرقام الخاصة بك.

HOME BLOOD PRESSURE LOG

DATE	TIME	SYS	DIA	PUL
	DAY			
	NIGHT			
	DAY			
	NIGHT			
	DAY			
	NIGHT			
	DAY			
	NIGHT			
	DAY			
	NIGHT			
	DAY			
	NIGHT			



(502) 772-8585



BP at Home: DATA

(BP in control <140/90)



- QI dashboards (all FHC patients in 2021)
 - 8,107 patients with HTN
 - 4,636 (57.2%) with BP in control at most recent medical visit
 - 3,471 (42.8%) with uncontrolled BP

- 2021 BP at Home participants who received cuff
 - 1,183 patients
 - 472 (39.9%) with BP in control at cuff visit
 - 711 (60.1%) with uncontrolled BP

- 2021 BP at Home participants with post-cuff visit
 - 730 patients
 - 298 (40.8%) with BP in control at cuff visit
 - 432 (59.2%) with uncontrolled BP

BP at Home: DATA

(BP in control <140/90)



- QI dashboards (all FHC patients in 2021)
 - 4,636 (57.2%) with BP in control at most recent medical visit

- 2021 BP at Home participants with post-cuff visit
 - 298 (40.8%) with BP in control at cuff visit
 - 369 (50.1%) with BP in control at post-cuff visit
 - 182 patients moved from uncontrolled to controlled
 - 111 patients moved from controlled to uncontrolled
 - Of the 432 who had uncontrolled BP at cuff visit
 - 182 (42.1%) had BP in control at post-cuff visit
 - 267 (61.8%) improved both SBP and DBP at post-cuff visit

BP at Home+ DATA: July 2019 to June 2020

284 Encounters

- 98 participants
- 64 new patients
- 74 returning patients

Participation Demographics (n = 98, first visit)

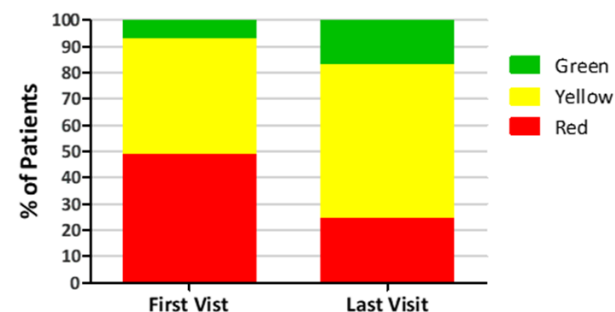
Age (year)		Gender (#, %)		Race (#, %)		Poverty Level (#, %)	
Mean	57	Female	63 (64.3%)	Black	79 (80.6%)	Mean	84.3
Median	58	Male	35 (35.7%)	White	17 (17.3%)	Range	0-422
Range	33-85			Unreported	2 (2.0%)	≤ 150% of FPL	83 (84.7%)
Age subgroups (#, %)		Language (#, %)		Ethnicity (#, %)		≤ 100% of FPL	67 (68.4%)
< 45 yrs.	14 (14.3%)	English	94 (95.9%)	Hispanic	4 (4.1%)	≤ 50% of FPL	38 (38.8%)
45-65 yrs.	61 (62.2%)	Spanish	3 (3.1%)	No Hispanic	93 (94.9%)		
> 65 yrs.	23 (23.5%)	Arabic	1 (1.0%)	Unreported	1 (1.0%)		

Risk Factors	Patients (#, %)	
Hypertension	98	100%
Diabetes	27	27.6%
Hyperlipidemia	59	60.2%
Atrial Fibrillation	3	3.1%
Myocardial Infarction	7	7.1%
Stroke	6	6.1%
Obesity	45	45.9%
Use Tobacco	34	34.7%
Depression	21	21.4%
Congestive Heart Failure	8	8.2%
Chronic Kidney	7	7.1%

(reported as mean ± SE)	First Visit	Last Visit	Change	p-value ^A
<u>Diastolic BP</u> (mmHg)	83.2 ± 1.2	79.4 ± 1.1	-3.8	0.003**
<u>Systolic BP</u> (mmHg)	137.7 ± 1.8	129.8 ± 1.4	-7.9	<0.001***
<u>BMI</u> (kg/m ²)	34.5 ± 1.3	34.0 ± 1.2	-0.5	0.778
<u>Weight</u> (lbs. Oz)	201.5 ± 8.0	200.6 ± 7.3	-0.9	0.941

^A P-value: Paired t test

BP in Color Zones (July 2019 - June 2020)



BP Color Zone	First Visit	Last Visit
Green	5 (7.1%)	12 (17.1%)
Yellow	31 (44.3%)	41 (58.6%)
Red	34 (48.6%)	17 (24.3%)

Chi-squar test for trend

p-value = 0.002**