NATIONAL ASSOCIATION OF Community Health Centers®

VALUE TRANSFORMATION FRAMEWORK

Companion Action Guide >> Evidence-Based Care

HEALTH CENTER

INFRASTRUCTURE | CARE DELIVERY | PEOPLE

HYPERTENSION SCREENING & CONTROL

For a health center to identify and manage hypertension in a way that improves health outcomes, improves patient and provider experiences, reduces costs, and addresses equity (the Quintuple Aim), evidence-based HTN interventions must be coupled with larger systems-level change. NACHC's Value Transformation Framework is designed to guide this systems approach to transformation.

WHY
is attention to hypertension so important?

Hypertension (HTN) has reached epidemic proportions in the United States. Nearly half of all adults in the U.S. (45%) are diagnosed with HTN or take medication for HTN[1,2]. Sustained, elevated blood pressure puts patients at risk for strokes, heart attacks, kidney failure, and death[3–5]. In 2019 alone, high blood pressure contributed to over 1,300 deaths each day[6]. Patients with hypertension may also be at greater risk of severe illness from COVID-19[7]. Costs linked to high blood pressure equal about $131 billion each year in the United States[8].

Tackling this epidemic requires identification ***and*** control of hypertension. Of the 75 million Americans with this condition, approximately 11 million don't know they have it, so they are not receiving treatment[9]. Among the nearly 35 million who know about their diagnosis, slightly more than half (16.1 million) do not have it under control[9].

In health centers, hypertension is the most prevalent chronic condition. Close to 5 million patients (nearly one quarter of all adult health center patients) are diagnosed with high blood pressure, yet 37% of them don't have it under control (defined in health center reporting requirements as <140/90 mm Hg)[10].

These statistics exist despite significant national and local efforts to reduce and control HTN, including:

- ***Million Hearts® 2022*** by the Centers for Disease Control and Prevention (CDC) and the Centers for Medicare and Medicaid Services (CMS). Million Hearts® aims to prevent 1 million heart attacks and strokes within 5 years and has set a goal that 80% of patients age 18-85 with high blood pressure will have it under control by 2022. NACHC leads a Million Hearts® initiative with health centers across the country.
- **Target: BP™** is a national initiative of the American Heart Association (AHA) and the American Medical Association (AMA). Target:BP helps local health care organizations improve blood pressure control rates through evidence-based quality improvements.
- The Health Resources and Services Administration (HRSA) promotes blood pressure control through its **Health Center Program**, which recognizes health centers that have achieved the Million Hearts® goal. HRSA maintains a Hypertension Dashboard to provide a multilevel view of HTN control in health centers.

This Evidence-Based Companion Guide on Hypertension (HTN) screening and control offers evidence-based steps to identify and manage HTN. It serves as a road map for health centers to identify and manage HTN within the context of whole person care when used with the Evidence-Based Care Action Guide.

HYPERTENSION SCREENING & CONTROL

WHAT
are the clinical guidelines for screening and managing HTN?

Hypertension has long been defined as a systolic BP > 140 mm Hg, or diastolic BP > 90 mm Hg[11,12]. However, the 2017 Hypertension Clinical Practice Guidelines reduced the threshold for diagnosis to individuals with a systolic BP > 130 mm Hg, or diastolic BP > 80 mm Hg[5]. This 2017 document provides the most up-to-date evidence-based clinical practice guidelines for the prevention, detection, evaluation, and management of high blood pressure in adults. It was written and endorsed by leading organizations committed to cardiovascular and heart health, led by the American College of Cardiology and the American Heart Association.

2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA **Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines.** Link

When looking at ways to effectively screen and manage hypertension, a recent study by Bellows, et. al. (2019) showed that overcoming therapeutic inertia, increasing visit frequency, and improving patient medication adherence significantly improved overall HTN control rates. Using these findings, NACHC's Million Hearts project developed a Roadmap for Improving Blood Pressure Control for African Americans. This guidance focuses on a series of tiered, evidence-based strategies:

- Increase/optimize medication therapy
- Promote consistent medication use (adherence)
- Increase patient contact (touchpoints)
- Promote patient self-care (engagement)

In addition to these strategies and HTN practice guidelines, the American Heart Association, American College of Cardiology, American Society of Hypertension, and other nationally and internationally recognized scientific groups also endorse the use of **Self-Measurement of Blood Pressure (SMBP)**[3,5,13–16]. Home or self-measured blood pressure is beneficial when coupled with "cointerventions" such as patient education and training, behavioral change management and counseling, medication management and monitoring[17].

A systematic literature review supports the implementation of SMBP as part of routine clinical practice[18]. The U.S. Preventive Services Task Force recommends SMBP (outside of the clinical setting) to confirm a diagnosis of HTN before starting treatment[19]. The 2017 Hypertension Clinical Practice Guidelines gave SMBP the highest recommendation (Class 1; Level A) to confirm a diagnosis of HTN and for treatment management in conjunction with telehealth interventions[5]. Previous work by NACHC's Million Hearts® team demonstrates that when providers adopt SMBP in their clinical-community care models and self-care plans, hypertension control is improved[20].

HOW
can health centers impact HTN?

Hypertension is a complex clinical condition that requires a multifactorial approach to care. NACHC's Value Transformation Framework (VTF) guides health centers in coupling HTN-specific interventions with systems-level interventions that make success possible. Systems-level interventions include things like team-based care, patient engagement, and partnerships. These efforts are focused on improvements to achieve the Quintuple Aim: improved health outcomes, improved patient and staff experience, reduced costs, and improved equity.

This Action Guide distills the voluminous evidence around hypertension into actionable steps health centers can follow as part of a systems approach to hypertension control.

HYPERTENSION SCREENING & CONTROL

EVIDENCE-BASED COMPANION GUIDE: HYPERTENSION SCREENING AND CONTROL

This Action Guide takes the ten (10) systems-level interventions from the Evidenced-Based Care Action Guide and expands those steps specifically for hypertension.

***Quick Note: Step 3 and Step 4** are outlined first for busy providers and care teams.*

OVERVIEW

STEP 3 **Design Models of Care that Incorporate HTN Evidence-Based Interventions:** Define a core set of HTN interventions that your health center will focus on. Target interventions for undiagnosed and diagnosed HTN within each risk level (low, medium, high, and complex).

STEP 4 **Create/Update HTN Clinical Policies and Standing Orders:** Create HTN clinical policies, procedures, and standing orders based on current evidence-based best practices. Integrate clinical policies and standing orders into routine care.

STEP 1 **Engage Leadership:** Nest HTN screening and control within a dashboard of clinical measures that are followed over time; and include HTN screening and control within the larger business case for value transformation.

STEP 2 **Apply Population Health Management Strategies:** Segment your patient population into subgroups and use registries to identify and track: (1) patients with high blood pressure; and (2) patients diagnosed with HTN.

STEP 5 **Deploy Care Teams in New Ways:** Enhance the delivery of HTN interventions by maximizing the role of each care team member to work in new ways for effective and efficient HTN screening and care.

STEP 6 **Optimize Health Information Systems:** Leverage health information technology to track, improve, and manage HTN identification and control. Capture the data needed for care delivery, reimbursement, and reporting.

STEP 7 **Engage Patients and Support Self-Management:** Tap into a variety of resources to engage patients in self-measured blood pressure (SMBP) and HTN care.

STEP 8 **Develop/Enhance Community Partnerships:** Create a list of community partners to support "whole person" care for patients with HTN. Establish memorandums of understanding (MOUs) to formalize collaboration.

STEP 9 **Tailor Treatment for Social Context:** Incorporate a social risk assessment into patient processes. Refer to an inventory of local organizations that address the social determinants of health impacting your target populations.

STEP 10 **Maximize Reimbursement for HTN Screening and Management:** Identify sources of reimbursement for HTN care and incorporate billing codes into your EHR and billing systems. Explore the addition of service lines (e.g., care management) that support HTN identification and control to generate additional revenue.

HYPERTENSION SCREENING & CONTROL

STEP 3

Design Models of Care that Incorporate Evidence-Based HTN Guidelines and Interventions

Health centers can improve HTN detection and control, even with competing priorities and limited resources. The key is to couple a core set of evidence-based HTN interventions with systems-level interventions (e.g., changes to infrastructure, care delivery, or people). This requires "packaging" HTN care as one important part of overall care. By approaching HTN care from this systems perspective, health centers can protect the limited time of providers and health center staff, and not overwhelm patients.

Many of the evidence-based HTN interventions outlined in this guide may be common practice at your health center. Or some may require changes in processes or services. Either way, HTN-specific interventions should be part of risk-based care models for low-, rising-, high-, and highly complex-risk subgroups. This requires the health center to develop care models (population-based care plan templates) that match the general needs of each cohort or risk group. Care teams can then develop individualized care plans based on each patient's blood pressure (BP) category and HTN stage. Education, medication types, and dosing can be individualized, accordingly. The process of dividing patients into cohorts and providing care based on risk, ultimately leads to better whole-person care. It also simplifies time and resources for providers and staff.

To update or create an effective care model that addresses HTN, health centers must start by measuring blood pressure accurately, on every patient, at every visit. Taking this "all the time on everyone" approach helps **identify** those who are still undiagnosed and **treat** and **manage** those diagnosed with hypertension.

Measure Blood Pressure

Accurate blood pressure checks should be provided for every patient, at every visit, with or without an appointment or co-pay. Review 7 Simple Tips to Get an Accurate Blood Pressure Reading and how to Measure Accurately. (Step 5 offers additional guidance.)

To confirm high blood pressure, use multiple readings. Patient positioning is essential for accuracy.

A summary of guidelines for blood pressure measurement includes:

- The Healthcare Resources and Services Administration (HRSA) Uniform Data System 2021. HRSA recently updated the measure for HTN to align with CMS165v9. This is defined as the percent of patients 18-85 years old with HTN during the measurement period, and whose most recent blood pressure was adequately controlled (<140/90 mm Hg)* during the measurement period[21]. SMBP may be used for UDS reporting if the data is electronically transmitted or visually observed by a member of the care team on a device (e.g., during a virtual visit with video capability, a member of the care team member observes the BP reading on the device; alternatively, a patient could share a photo of the BP monitor's screen displaying the BP reading).

  **While performance measures such as the HRSA Uniform Data Systems (UDS) assess control at 140/90, the 2017 ACC/AHA Hypertension Clinical Practice Guidelines define hypertension for the purposes of clinical treatment as > 130/80 mm Hg[5].*

- The National Committee for Quality Assurance updated their Healthcare Effectiveness and Information Set (HEDIS) for Controlling Blood Pressure in 2020. It includes BP

HYPERTENSION SCREENING & CONTROL

STEP 3

readings taken from remote monitoring devices. The denominator has been revised to include two visits with a HTN diagnosis within the first six months of the measurement year, or the year before[22,23]. Blood pressure readings by a clinical team member OR the patient may be included in the numerator. SMBP readings taken by patients and shared with the clinical team can be counted[22].

Classify Blood Pressure

Using systolic and diastolic readings, identify each patient's BP category to determine appropriate care and treatment. Copies of this table can be printed (in multiple languages) and handed to patients with their BP category circled.

BP Category	SMBP		DBP
Normal	<120 mm Hg	and	<80 mm Hg
Elevated	120-129 mm Hg	and	<80 mm Hg
Stage 1 Hypertension	130-139 mm Hg	or	80-89 mm Hg
Stage 2 Hypertension	≥140 mm Hg	or	≥90 mm Hg

Assign patients with SBP and DBP in two categories to the higher BP category

To download a patient-friendly version click here.

Patients who are found to have elevated blood pressure levels in the health center from an automated blood pressure machine should have the measurement repeated manually. If manual measurement indicates HTN, the patient should be scheduled for self-measurement of blood pressure (SMBP) before confirming a HTN diagnosis. This helps rule out white coat hypertension (elevated levels in a clinical setting).

SMBP can also help patients with multiple conditions who may be at risk for HTN (e.g., individuals with diabetes, obesity, high cholesterol) or patients with diagnosed HTN for management and treatment. The International Diabetes Federation, for instance, has recommended the use of SMBP for the management of BP in patients with diabetes[24].

See page 7 for guidance on SMBP.

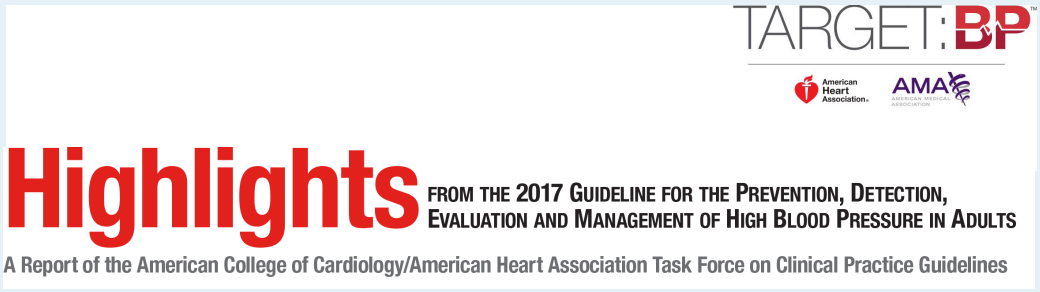
Treat Elevated Blood Pressure

It is essential that patients with hypertension get the right medication(s) quickly. Research indicates that a combination of therapies may increase control rates better than monotherapy[25,26]. Failing to start or intensify treatment for high BP (referred to as 'therapeutic inertia') contributes to the high rates of uncontrolled HTN evidenced today[2]. Once elevated blood pressure is identified, it is important to Act Rapidly.

Evidence-based guidelines to treat hypertension are available from the American College of Cardiology/American Heart Association Task Force on Clinical Guidelines. An easily printable version is available at: Highlights from the 2017 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults.

HYPERTENSION SCREENING & CONTROL

STEP 3



Source: https://targetbp.org/tools_downloads/hypertension-highlights/

ASCVD

Atherosclerotic Cardiovascular Disease (ASCVD) can be identified with the ASCVD Risk Calculator developed by the American Heart Association and American College of Cardiology. For patients with Stage 1 Hypertension, the Calculator helps to estimate a patient's 10-year and lifetime risk for ASCVD. This estimate is an important baseline assessment to determine the most appropriate treatment.

Additional guidelines and treatment protocols for hypertension include:

- Million Hearts Hypertension Protocol Template
- AMA Hypertension Medication Treatment Protocol
- Kaiser Permanente Adult Blood Pressure Clinical Practice Guidelines
- Veterans Affairs/Department of Defense HTN Clinical Practice Guidelines
- The American Heart Association's Hypertension Guideline Toolkit which includes treatment guidelines for patients with comorbidities

Implement Evidence-Based Interventions to Prevent, Control, and Treat HTN:

- *Lifestyle changes proven to prevent and treat hypertension:* weight reduction, DASH eating plan (high fruits/vegetables, low dairy/fat), reduced sodium intake, increased physical activity, and moderate alcohol consumption[27]
- *Pharmacological interventions:* BP medication management, cholesterol-lowering medications (statins), and aspirin regimens
- *Self-Measured Blood Pressure Monitoring (SMBP)*

HYPERTENSION SCREENING & CONTROL

STEP 3

Use Self-Measured Blood Pressure Monitoring (SMBP)

SMBP with clinical support is more effective at lowering blood pressure and improving HTN control than usual care[2]. A Joint Policy Statement from the American Heart Association and American Medical Association points to evidence that SMBP is associated with reduced blood pressure and improved blood pressure control, especially when combined with cointerventions (e.g., patient education, medication monitoring)[17].

Guides to support the use of SMBP in hypertension control plans are available through:

- CDC's Hypertension Control Package, Second Edition[28]
- American Medical Association's (AMA) SMBP Quick Guide[29]
- NACHC's SMBP Implementation Toolkit[30]

When to use SMBP:

1. To confirm HTN diagnosis when in-office blood pressure is elevated.
2. To manage treatment for patients already diagnosed with HTN.
3. To assess undiagnosed HTN when patients with co-morbidities such as obesity and diabetes place them at risk for HTN.
4. To monitor changes resulting from medication.

SMBP is an excellent resource to diagnosis hypertension, assess blood pressure control, monitor medication changes, and obtain readings as part of/prior to appointments.

Patients should be instructed to take two measurements at least one minute apart in the morning and again in the evening. Recommendations suggest: 7 days of readings (48 total readings) as ideal; 3 days (12 readings) as the minimum[31]. SMBP measurements taken in the 7-day period are then averaged into one systolic BP average and one diastolic BP average. This average is then used for treatment decisions and clinical action.

Document SMBP readings for UDS data:

- Patients can report readings electronically (e.g., using Bluetooth technology) to providers through a phone app, email, or via the patient portal.
- Providers can visually observe a patient taking his/her measurement during a virtual visit and ask the patient to share the BP result displayed on the monitor screen.
- Providers can visually observe a patient calling up a historical BP reading on the monitor screen.
- Providers can review a photograph submitted by a patient (e.g., via patient portal) that shows a BP reading on the monitor screen.

If SMBP is used to manage existing HTN, measurements should start two weeks after medication starts or changes. Target: BP™ offers a sample SMBP Recording Log to document a patient's BP readings at home. Target: BP™ also offers a SMBP Average Calculator to average the blood pressure readings.

HYPERTENSION SCREENING & CONTROL

STEP 3

Interpreting SMBP readings:

An average blood pressure reading of 135/85 mm Hg through SMBP is considered equivalent to 140/90 mm Hg in the clinical setting. Per the 2017 AAC/AHA Guidelines for HTN, 130/80 mm Hg is the diagnostic threshold for hypertension; this threshold can be used for most patients as the treatment target for clinical settings and SMBP[31].

Use validated SMBP Equipment: (Patients should only use validated blood pressure monitors).

- Ensure the cuff size is appropriate. As many as 52% of men and 38% of women with HTN require a cuff size different from the standard adult size cuff[32].
- Patients should be instructed not to share their BP monitor with others unless it is a two-person monitor and they can reserve one setting for their measurements only.
- If possible, recommend a monitor that averages across scores. This way patients and/or the clinical team do not need to do this step manually; alternatively, use an SMBP average calculator.

Your health center may decide to purchase a set of blood pressure monitoring devices that can be loaned to patients. If so, visit the **Target: BP™** Loaning Out Devices webpage for details on purchasing, managing, and loaning automated blood pressure machines.

Patient Education on SMBP:

Educate patients on how to conduct SMBP properly. Helpful resources to support patient education include:

- How to Measure Your Blood Pressure at Home (Target: BP™ Infographic)
- How to Measure Your Blood Pressure at Home (English); in Spanish (NACHC Videos)
- Self-Measured Blood Pressure Monitoring (English); in Spanish (Target: BP™ Videos)
- Self-Measured Blood Pressure Patient Training (Target: BP™ Checklist)
- SMBP Recording Log (Target: BP™ Log)
- Provider's Guide to Patient Self-Monitoring of Blood Pressure (NYC Department of Health)

Cholesterol/Lipids

When people have more than one risk factor, like high blood cholesterol and high blood pressure, heart disease risks are much greater.

Evidence-based guidelines to manage cholesterol may be found in the 2018 Guideline on the Management of Blood Cholesterol by the American College of Cardiology and American Heart Association[33]. Personalized care plans may be created with the cholesterol management protocol flow diagram based on these guidelines. NACHC's Million Hearts team has developed a suite of resources related to Statin Therapy for High-Risk Patients, including a Roadmap for Use of Statins in High-Risk Patents and a package of provider cholesterol training resources.

Four patient groups benefit from Statins. Patients with: (1) clinical ASCVD; (2) LDL >190 mg/dl; (3) Diabetics 40-75 years old with LDL of 70-189 mg/dl without ASCVD; and (4) Without ASCVD or diabetes with LDL of 70-189 mg/dl and estimated 10-year ASVCVD risk >7.5%[34].

HYPERTENSION SCREENING & CONTROL

STEP 3

Implement evidence-based interventions to prevent, control, and treat high cholesterol (which also help control HTN):

- *Lifestyle changes proven to prevent and treat high cholesterol (and high blood pressure):* weight reduction, DASH eating plan (high fruits/vegetables, high grain, low dairy/fat), reduced sodium intake, increased physical activity, and no smoking
- *Pharmacological interventions:* Statins

Aspirin

Low dose aspirin (75-162 mg/day) therapy may reduce the risk of heart attack or stroke. Train staff and patients to identify symptoms of stroke and to respond swiftly. Click here to learn more about F.A.S.T. warning signs of a stroke.

Medication Management

Before prescribing HTN medication, it is critical to ask patients about all medications they take unrelated to blood pressure, even over-the-counter medicine or vitamins. The number or type of medications a patient uses can elevate BP. Download a copy of the American Heart Association's BP Raisers infographic on common medications and substances that increase blood pressure.

Only 20% of patients on anti-hypertensive medications are estimated to sufficiently adhere to medication plans that would help them achieve benefits found in clinical trials[27]. To address the problem of medication adherence, the Million Hearts® program introduced the SIMPLE method to improve medication adherence:

- **S**implify the regimen: use reminders like pill boxes and daily routines (a pill at meals or bedtime)
- **I**mpart knowledge: provide written prescription instructions
- **M**odify patients' beliefs and behaviors: use positive reinforcements and incentives; discuss concerns
- **P**rovide communication and trust
- **L**eave the bias
- **E**valuate adherence

Consider an Automatic Refill Policy.

For the 20 to 30 percent of patients with HTN who do not respond to treatment (e.g., resistant hypertension) consult AHA's Algorithm for Diagnosis, Evaluation and Treatment of Resistant Hypertension[5] and related evidence-based protocols[3].

Diet/Weight Management

Increased body fat ranks as one of the most important factors contributing to hypertension[35]. Processes must be in place to measure patients' body mass index (BMI) per UDS guidelines, and to implement a care plan for patients with HTN who have a BMI outside normal parameters. Patients need support to manage their weight with education and services.

HYPERTENSION SCREENING & CONTROL

STEP 3

Diet: If available, incorporate a nutritionist or dietician into the patient's care plan. If these professionals are not available in your health center, train an appropriate member of the care team to develop personalized menus of nutrition/diet options for HTN patients. Staff can be trained in beneficial diet strategies like USDA's MyPlate. Incorporate MyPlate education into patient discussions and individualized interventions.

- Encourage patients to follow a low sodium Dash diet.
- Develop a menu of nutrition/diet options for individualized diet plans based on targeted strategies for different patient groups.
- Train at least one care team member to discuss basic tools for portion control and healthy food choices. Healthy portion techniques and tools are found through MyPlate.
- Talk with patients about an overall 'simple' goal like reducing 500-750 calories per day[36] or reducing snacks.
- Share a video on MyPlate with your patients.
- Use visual prompts as conversation starters. For example: use an empty 16 oz. soda bottle that is filled only with 16 teaspoons of sugar (the amount of sugar in one serving of soda). Explain that consuming one less 20-ounce soda (approximately 225 calories) per day could result in weight loss of a half a pound per week or 25 pounds in one year.

Fitness: Provide patients with "prescriptions" for exercise. Start with patient specific goals to increase physical activity. Target patient weight loss and exercise goals based on losing at least 5 to 10% of body weight within a reasonable timeframe. Start with patient specific goals. For exercise promotion ideas, see a sample Exercise Prescription Release Form and AMA's Action Plan for Increasing Physical Activity.

Smoking Cessation

At each patient visit, assess tobacco use. Advise smokers to quit smoking or using any vaping product with nicotine. Develop a script for staff to counsel patients to quit tobacco use which includes the phone number for a quit line like, 1-800-QUIT-NOW. Patients can be encouraged to sign-up for daily "quit smoking" messages (3-5x/day); text "QUIT" to 47848. Patients can also download the quitSTART app to help develop a quit plan, monitor progress, and gain inspiration. Use pharmacologic therapy for patients motivated to quit.

STEP 3

Action Item: Design a model of care that incorporates a core, actionable set of evidence-based HTN interventions. This includes: (1) accurately measuring and documenting blood pressure for every patient at every visit; (2) identifying medications or other steps to treat patients, and following up with patients at risk for, or with, HTN; (3) considering lifestyle changes, including self-measured blood pressure monitoring (SBPM), weight loss, diet changes, exercise, and smoking cessation.

HYPERTENSION SCREENING & CONTROL

STEP 4

Design Models of Care that Incorporate Evidence-Based HTN Guidelines and Interventions

Create HTN protocols, order-sets, and standing orders for your health center based on evidence-based guidelines for population and individualized care. These are critical for the delivery of standardized, effective HTN care, and should be updated regularly. Standing orders can improve clinical measures, allow nurses and other staff to use their qualifications more fully, and may be implemented for clinical measures such as cholesterol[37].

Protocol templates (referenced in Step 3) include:

- Million Hearts Hypertension Protocol Template
- AMA Hypertension Medication Treatment Protocol
- Kaiser Permanente Adult Blood Pressure Clinical Practice Guidelines
- Veterans Affairs/Department of Defense HTN Clinical Practice Guidelines
- The American Heart Association's Hypertension Guideline Toolkit which includes treatment guidelines for patients with comorbidities.

Sample health center and primary care-specific guidelines and standing orders include:

- Zufall Health Center: Guideline for Screening, Diagnosis and Management of Hypertension
- Marshfield Clinic Health System Standing Orders, including HTN
- Mercy Clinics' Hypertension Standing Orders
- Intermountain Healthcare: High Blood Pressure Care Process Model

Action Item: Create/update clinical policies and standing orders for HTN and associated conditions based on evidence-based practice guidelines. See NACHC's Evidence-Based Action Guide for more information on systems-level interventions.

HYPERTENSION SCREENING & CONTROL

STEP 1

Engage Leadership

By identifying and treating HTN early and consistently, your health center can be better positioned to reach your Quintuple Aim goals. Nest HTN screening and control within a dashboard of clinical measures that are followed and addressed over time. Include HTN screening and control within the health center's larger business case for value transformation. Name a clinical lead to head HTN activities with the full support of health center leadership. The leadership team can direct messaging, create protected time, and offer resources to demonstrate that HTN is a priority for the health center.

Set short and long-term targets for improvement. Short-term goals may include running registries to identify patients with elevated blood pressure; training staff on new policies; or changing care team members' roles and responsibilities to better identify and manage HTN. Longer-term measures can include HTN control rates and follow-up rates for patients with elevated HTN levels.

Commit, as an organization, to identify patients with HTN more effectively. For patients diagnosed with HTN, commit to achieving higher control rates. Consider joining state, regional, or national initiatives, such as the Million Hearts® 2022 which is a national initiative focused on preventing 1 million heart attacks and strokes within 5 years[38].

Action Item: Leadership nests HTN screening and control within a dashboard of clinical measures it follows; and includes HTN screening and control within the larger business case for value transformation. See NACHC's Leadership Action Guide and Evidence-Based Action Guide for more information. Set targets, benchmark success, and commit to identifying and improving HTN screening and control as part of local, state, or national initiatives.

STEP 2

Apply Population Health Management Strategies, including Risk Stratification and Registries

Population health management strategies for HTN need to be informed and driven by data.

Health centers can use the Million Hearts® Hypertension Prevalence Estimator Tool to estimate the percent of patients receiving care who have hypertension. This can be compared against the percent of health center patients diagnosed with hypertension. This comparison may illustrate the need for better strategies to detect and treat patients with undiagnosed hypertension. While the estimator tool is not yet validated in health systems that have a high prevalence of patients with low socioeconomic status, it may provide a helpful estimate.

To understand the impact of HTN in your community, review:

- CDC's Interactive Atlas of Heart Disease and Stroke for county-level maps of heart disease indicators, including HTN.
- The Agency for Healthcare Research and Quality's map comparing states' Million Hearts preventable cardiovascular event rates and counts. This site allows you to view preventable cardiovascular events for adults in different geographic areas around the country.
- City- and census track-level data for chronic disease and health outcomes such as HTN in CDC's 500 Cities Project. This data helps health centers located in many cities understand the burden and geographic distribution of HTN to plan effective interventions.

HYPERTENSION SCREENING & CONTROL

Once you gain a picture of the impact of HTN in your health center and larger community, use population health management and risk stratification methods to factor in HTN. First, segment your patient population into subgroups based on risk for low-, rising-, high- and highly complex groups. NACHC's Risk Stratification Action Guide outlines a process to segment patients by risk based on the number of chronic conditions they have (e.g., 0 or 1 conditions = low risk; 4-5 conditions = high risk). Social risk factors can also be included. HTN should be part of the 'count'[39].

Once you complete the risk stratification steps, identify patients with elevated blood pressure but no diagnosis (e.g., potential undiagnosed HTN) and those diagnosed in each of your target segments (e.g., low-, rising-, high-, and highly complex). Overlay the evidence-based clinical guidelines for HTN care and treatment to create appropriate care models for each risk group.

Action Item: Segment your patient population into target groups based upon risk, with HTN as a factor. Within each segment, identify patients with elevated blood pressure but no diagnosis (potential undiagnosed HTN) and patients with HTN. Apply evidence-based HTN guidelines to create care models for each target group (Step 3). See NACHC's Risk Stratification Action Guide for more.

STEP 5

Deploy Care Teams in New Ways

Create a checklist on HTN proficiency for key care team positions; evaluate staff proficiency and address gaps. Ensure staff can take accurate blood pressure measurements:

- Train staff in accurate blood pressure management. Require staff to view AMA's 1-minute video on properly measuring blood pressure.
- Observe and monitor staff techniques, at least annually, and document accuracy using a tool such as a Blood Pressure Technique Competency Checklist.
- Train staff to support patients in lifestyle changes for HTN management and weight control. Incorporate HTN interventions as a part of pre-visit planning. (See the AMA STEPS Forward Pre-Appointment Questionnaire).

Evaluate care team responsibilities and reorganize staff to gain efficiencies and distribute workload:

- Panel size can be adjusted by assigning a subpanel of patients with uncomplicated chronic conditions (like uncomplicated HTN) to nurses or pharmacists for management. Use standing orders to "**share the care**"[40].
- Offer tools and resources that aid staff measurement and decision-making. Create quick reference exam room tools that summarize and combine HTN care with other care parameters (e.g. recommended blood pressure parameters, depression screening scale, body mass index ranges).
- Train staff in motivational interviewing. Evidence shows the positive impact of shared decision-making on patient outcomes[41–43].
- Consider group visits (in-person or virtual) for patients with HTN, particularly if coupled with other chronic conditions such as diabetes or obesity. Group visits are a patient-centered way to optimize time, reduce costs, and improve patient

HYPERTENSION SCREENING & CONTROL

engagement and empowerment. They have been found to reduce participant's blood pressure, cholesterol, and A1c levels[44,45]. The University of Colorado's Diabetes Group Visits Leader's Manual can be adapted for HTN or for patients with multiple chronic conditions.

Action Item: Assess, train, and support care team members with core competencies for HTN screening and control. Find ways for care team members to "share the care". Create workflows that include HTN interventions as part of pre-visit planning and consider group visits for patients with co-morbidities such as HTN and diabetes. Review NACHC's Care Teams Action Guide and NACHC's Care Management Action Guide.

STEP 6

Optimize Health Information Systems

When your health information systems are designed to offer quick references, guides, and resources for the care team, your providers will save time and billing can be streamlined and simplified.

Some EHR configuration tips:

- Create workflows and configure your electronic health record (EHR) to capture and report blood pressure measurement, including required data elements for the updated UDS HTN measure[46]. Include HTN measures in a health center dashboard and monitor continuously.
- Create fields in the EHR to record and track SMBP if one does not already exist, or use your population health management solution. Provide guidance for staff to document this data.
- Configure your EHR to
  - Create gap reports - with information on the status of preventive and other health screenings, such as HTN. Gap reports help organize and prioritize the work of the care team around an upcoming patient visit.
  - Track HTN levels over time.
  - Implement automated reminders with electronic alerts/flags to prompt the clinical team. For example, program the EHR, or other HIT systems, so patients with Stage 1 (BP 130-139/80-89 mm Hg) or Stage 2 (>140/90 mm Hg) HTN are flagged to alert the health care team to address undiagnosed hypertension. Similarly, treatment protocols can be matched to identify patients with HTN who may be undertreated or not adhering to treatment medications. Alerts can also be tailored by age and condition, and used to document historical screenings, patient education, and patient refusals.
- Link screening, monitoring, and treatment services back to appropriate billing codes.

Action Item: Configure HTN screening and management prompts, as appropriate, to alert and guide the care team to identify and treat HTN. Create/update EHR templates to capture SMBP and HTN-related care items. This includes screening for issues like tobacco use, weight management, and medications. Use the data collected to support your health center's billing claims for HTN-care.

HYPERTENSION SCREENING & CONTROL

STEP 7

Engage Patients and Support Self-Management

Provide patients with a record of their blood pressure. Explain why it's important to control blood pressure at each visit, verbally and in writing when reasonable. Health centers should offer patient education materials in multiple languages, at appropriate literacy levels, with translators available as needed. The availability of culturally competent materials that use pictures and visuals, rather than words, is also important.

Communication strategies: Motivational interviewing, teach-back communication, and follow-up can be used to help patients understand the important role they play in their own care. They should be encouraged to stick with a care plan that addresses lifestyle changes, including SMBP monitoring and medication, as needed. See Step 3. Telephone, email, or text messaging systems can be used to follow-up with patients and help them stay on track. A staff script can include provider recommendations for specific monitoring steps, as appropriate. In person follow-up appointments can be timed with other incentives that bring folks back (e.g., food distribution, COVID testing or vaccination).

Use patient reminders through portal, email, telephone, or text messaging systems to emphasize provider recommendations for HTN screening and management.

At home blood pressure monitoring: All hypertensive patients should monitor their blood pressure at home. When covered by insurance, provide patients with blood pressure monitors. Train patients to properly self-measure blood pressure and offer a copy of the How to Measure Your Blood Pressure At Home handout. A Self-Measured Blood Pressure Patient Training Checklist can be used to confirm patient understanding and accuracy in SMBP.

Build patient SMBP into clinical protocols so staff can routinely and consistently train patients in blood pressure measurement.

Where possible, use patient navigation to support patient engagement. Navigators may be trained lay individuals or skilled professionals, such as nurses or social workers, who support patients in SMBP with follow-up if HTN is documented.

Action Item: Engage and educate patients. Support patients' HTN self-management using culturally and linguistically appropriate education tools, motivational interviewing or teach-back techniques, and consistent follow-up. Engage patients in developing their own care plans. See NACHC's Patient Engagement Action Guide for more information.

HYPERTENSION SCREENING & CONTROL

STEP 8

Develop/Enhance Partnerships

Create formal linkages with organizations that offer nutrition counseling, behavioral or mental health services, employment services, and other expertise related to the health and social needs that affect HTN in your community. A wide range of external partnerships help to build community support for HTN self-management. It also helps to join with other health centers and public health organizations across the country who are interested in SMBP, including the CDC, as well as NACHC's quarterly SMBP Forum.

Action Item: Develop/leverage partnerships in support of "whole person" care for patients with HTN. Maintain a list of partners and key points of contact within each organization. Establish memorandums of understanding to formalize collaboration.

STEP 9

Tailor Treatment for Social Context

Health inequities and social determinants of health have a well documented impact on HTN and HTN complications. Effective data on a patient's social risk(s) can improve HTN screening and control by informing the need for targeted services, including coordination and follow-up. Financial and other barriers that patients may face should be considered, including the costs for transportation/gas to travel to office visits or follow-up; potential food insecurity; housing stability; financial and other barriers. Apply this information to treatment decisions.

Tools such as NACHC's Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) can be applied by health centers to assess, and then respond to social risk factors in partnership with aligned community resources.

Action Item: Incorporate social risk assessment into the patient visit process. Develop an inventory of community resources to help patients with HTN screening and control. Assess potential food insecurity, housing instability, and financial barriers, and apply that information to treatment decisions. Refer patients to community resources in your inventory list, as appropriate.

HYPERTENSION SCREENING & CONTROL

STEP 10

Maximize Reimbursement for HTN Screening and Management

High-quality, sustainable HTN management can only be delivered with proper reimbursement. Opportunities exist for health centers to be reimbursed for services outside of the prospective-payment system. This includes reimbursement for such services as Chronic Care Management (CCM) under the Centers for Medicare and Medicare Services (CMS). Additional reimbursement may also be available in your state from Medicaid or health home initiatives or from local payers. Health centers should become familiar with payment opportunities and establish mechanisms to submit for reimbursement, where qualified. This includes reimbursement for:

- **SBMP** Coverage for self-measured blood pressure monitors varies, with some Medicaid or local payers covering the cost. While Medicare does not cover the cost of the device, it has introduced new billing codes for SMBP. Effective January 1, 2020 two new CPT codes were introduced to support SMBP[47].
  - Code 99473 allows for reimbursement of staff time for patient education/training and device calibration ($11.17). This code may only be submitted once per device.
  - Code 99474 covers staff time for gathering and monitoring patients using SMBP with a validated device (e.g., two readings, one minute apart, twice daily over a 30-day period, minimum of 12 readings). This includes collecting the data, with report of average systolic and diastolic pressures, and communication of a treatment plan with the patient. These codes may be submitted monthly but not reported in the same month as Medicare complex chronic care management.

- **Chronic Care Management (CCM)** services under the Centers for Medicare and Medicaid Services (CMS). HTN care is an important part of personalized and supportive CCM services for individuals who qualify with two or more conditions. Once a comprehensive initiating visit has taken place to start CCM services, health centers can bill for 20 minutes or more of CCM each calendar month at a rate of $66.77/month.
- **Intensive Behavioral Therapy and Nutrition Counseling** for Medicare beneficiaries who have obesity (BMI>30 kg/m2). Care must be provided by a qualified primary care physician, nurse practitioner, clinical nurse specialist, or physician's assistant and may be covered for up to 12 months if a weight loss of at least 3 kg is achieved within the first 6 months. Medicare also covers up to 3 hours of medical nutrition therapy initially, and up to 2 hours annually, thereafter[48].
- **Medicaid or Health Home initiatives** from local payers may offer reimbursement for HTN management or control.

Action Item: Collect reimbursement for HTN screening and management through activities related to education and support for patient's self-measured blood pressure monitoring and care management of patients with HTN. See NACHC's Reimbursement Tip Sheets found on the Value Transformation Framework webpage.

HYPERTENSION SCREENING & CONTROL

This Action Guide was developed with support from the Centers for Disease Control and Prevention (CDC) cooperative agreement #NU38OT000310. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, the CDC or the U.S. Government.

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HYPERTENSION SCREENING & CONTROL

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