
# Cardiovascular Health Practice Module

## June 2025

The National Cardiovascular Health Program

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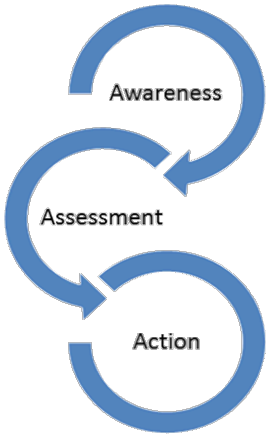
# Purpose of Module

This Cardiovascular (CV) Health Practice Module provides a comprehensive overview of evidence-based information and resources focused on preventing and managing hypertension (HTN) and stroke. The module supports and enhances ongoing quality improvement efforts within healthcare practices. Quality Insights offers on-site and virtual technical assistance at no cost to engaged practices dedicated to improving CV health across their patient population. As an active participant in the Pennsylvania Department of Health's National Cardiovascular Health Program, this module aims to support and supplement practice quality improvement efforts related to CV health, HTN, and hypercholesterolemia (HCL).

Sections are highlighted by the **"3 As" – Awareness, Assessment, and Action –** and include several tools and resources that can be located on the Quality Insights website.




**Target Audience:** The module was developed for healthcare professionals, including physicians, physician assistants, nurse practitioners, nurses, pharmacists, social workers, and care team members involved in managing cardiovascular disease (CVD) risk factors and patient care.

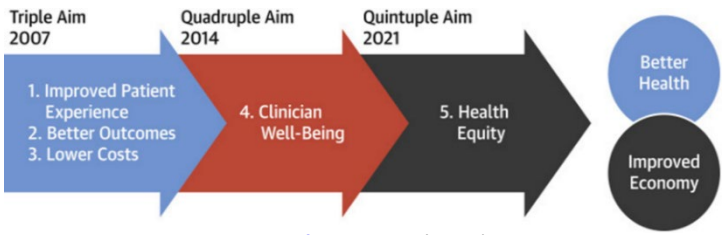
***Note:*** *Guidelines referenced in this module are provided in a brief summary format. Complete recommendations should be reviewed in the original publication(s) and utilized with physician/clinician judgment, with consideration given to a patient's unique needs and circumstances.*

# The Pressure is Off: Partner with Quality Insights

Quality Insights is committed to supporting your healthcare team in achieving optimal CV health and managing and preventing CVDs. In partnership with the Pennsylvania Department of Health, we provide a comprehensive range of services, at no cost, designed to assist your team in reaching your quality improvement goals, focused on hypertension and stroke prevention and management. Quality Insights provides on-site and virtual technical assistance to accommodate your practice needs.

Key services offered by Quality Insights include:

1. **Workflow Assessments:** Workflow assessments consist of exploring current workflows, protocols, and processes, including the use of health information technology, team-based care, disease management, and strategies for clinical quality improvement based on ideals within the Quintuple Aim.




*Source: National Library of Medicine (NLM), 2021.*

2. **Workflow Modifications:** Quality Insights developed evidence-based transformation solutions to increase practices' proactive outpatient management of patients with HTN and/or HCL. Workflow modifications can be located in the Quality Insights' Practice Education Modules appendix and on the Quality Insights PA CVD Education web page.
3. **Technical Assistance:** Quality Insights' Practice Transformation Specialists are available to support your clinical quality improvement goals and improve value-based care in your practice setting at no cost.
4. **Achievement Recognition:** Are you making significant progress in blood pressure (BP) control in your practice with National Quality Forum (NQF) #0018 Controlling High Blood Pressure reporting above 70% or 80%? If so, Quality Insights can help you apply for national recognition through the Target: BP™ and Million Hearts® Hypertension Control Champion initiatives.

## Quality Improvement Solutions for You and Your Patients

The services above represent a small sample of Quality Insights' offerings. Discover all the ways the team at Quality Insights can help you and your patients make reducing HCL and achieving BP control the goal by reviewing this CV Workflow Modification Guide. Email Ashley Biscardi or call **1-800-642-8686, Ext. 2137** for more details.

# AWARENESS: The Value of Blood Pressure and Cholesterol Targets and Control

CV health continues to be a top public health priority, with heart disease and stroke maintaining their stature as the first and fifth leading causes of death in both the United States (Kochanek et al., 2022) and Pennsylvania (Centers for Disease Control and Prevention [CDC], 2024), respectively.

Globally, the leading modifiable risk factor for premature CV-related death continues to be high systolic BP (Vaduganathan et al., 2022). HTN is a contributing factor to significant health conditions, including heart attack, heart failure, stroke, and kidney failure. Nearly 34% of adults in Pennsylvania have been diagnosed with high blood pressure, slightly higher than the national average of 32% (America's Health Rankings, 2021).

*The Global Burden of Cardiovascular Diseases and Risk: A Compass for Future Health* (Vaduganathan et al. 2022) asserts, "Multi-level pharmacological and non-pharmacological interventions are needed to address the risks of high blood pressure on health." The publication also suggests simplifying BP control strategies and emphasizes the vital role of public health strategies in promoting screening, detection, and treatment of HTN.

The American Heart Association (AHA) reports, "An estimated 126.9 million U.S. adults are living with at least one type of CVD, and by 2035, persons with CVD will account for nearly 45% of the adult U.S. population. The accumulation of low-density lipoproteins (LDL-C) can lead to plaque deposits and atherosclerosis, increasing the risk of heart attack and stroke. Sadly, LDL-C is on the rise. Globally, in 2020, there were 4.51 million deaths attributable to high LDL-C, a 19% increase from 2010."

The 2023 Guideline on the Management of Blood Cholesterol is a complete revision of the 2013 American College of Cardiology (ACC)/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults. It provides current

- "In 2022, 1 in 6 deaths from CVD were due to stroke.
- Every 40 seconds, someone in the U.S. has a stroke. Every 3 minutes and 11 seconds, someone dies of stroke.
- The risk of having a first stroke is nearly twice as high for non-Hispanic Black adults as for White adults. Non-Hispanic Black adults and Pacific Islander adults have the highest rates of death due to stroke."

*Source: CDC, 2024.*

cholesterol-lowering recommendations, including lifestyle interventions, statin and non-statin regimens, risk assessment tools, and management of specific patient populations.

## Social Determinants of Health (SDOH)

The 2023 Pennsylvania Health Assessment confirms, "Health disparities persist throughout Pennsylvania and the nation, and COVID-19 has underscored and magnified this reality. Some residents across the state die prematurely and live with a poor quality of life due to social, economic, service environment, and physical environment factors, which are called the social determinants of health."

### SDOH Definition

SDOH are defined as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risks."

*Source: Healthy People 2030.*

### Screening for Social Needs

As healthcare providers become increasingly responsible for achieving population health goals, they require tools and strategies to identify the upstream socioeconomic factors contributing to poor health outcomes and higher costs. With this data, providers can transform care through integrated services to meet the needs of their patients, address SDOH factors, and demonstrate the value these services bring to patients, communities, and payers.

Several screening instruments are available to aid practices in identifying SDOH. The following are a sample of options for consideration:

1

**PRAPARE Assessment Tool**

The National Association of Community Health Centers' Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences tool (PRAPARE) is both a standardized patient social risk assessment tool consisting of a set of national core measures and a process for addressing the social determinants at both the patient and population levels. By using PRAPARE, providers can better target clinical and non-clinical care (often in partnership with other community-based organizations) to drive care transformation, delivery system integration, improved health, and cost reductions. Additional benefits are listed below.

**Electronic Health Record (EHR) Integration:**

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| Data from the PRAPARE assessment is transferred directly into many electronic health records (EHRs) as structured data. EHR templates and video demos are available for eClinicalWorks, Cerner, Epic, Athenahealth®, Greenway Intergy, and NextGen. |
| If an SDOH assessment template or the PRAPARE tool is not available within the EHR, utilize a paper form (available in 30 languages) or Excel file template to collect standardized data until the EHR template is developed. |
| When integrated into the EHR, PRAPARE can automatically link to relevant ICD-10 Z codes (where applicable) that can be added to the assessment, diagnostic, or problem list in most EHRs. |

**Implementation Tools for Practices:**

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| PRAPARE Readiness Assessment Tool: Use this tool to help identify your organization's readiness to implement PRAPARE. |
| Implementation Strategy Work Plan: Outlines tasks, roles, and responsibilities and provides space to document progress. |
| Training: Free webinars and resources are accessible from the PRAPARE website and the PRAPARE YouTube Channel |


**American Academy of Family Physicians (AAFP) Social Needs Screening Tool**

The AAFP offers the Social Needs Screening tool through the EveryONE Project™, which can be self-administered or administered by clinical or non-clinical staff. Using validated screening questions, it screens for five core health-related social needs, including housing, food, transportation, utilities, and personal safety. Additional questions assess employment, education, childcare, and financial strain. The EveryONE Project™ Toolkit offers a variety of helpful strategies for use in the clinical setting to improve patients' health and address SDOH.


**Centers for Medicare & Medicaid Services (CMS) Accountable Health Communities' Health-Related Social Needs Screening Tool**

The CMS 10-question **Health-Related Social Needs Screening Tool** is a self-administered questionnaire that can help providers identify patients' needs in five core domains that community services can help, including housing instability, food insecurity, transportation problems, utility needs, and interpersonal safety.

**Take the Next Step:** The best first step to get started with PRAPARE and/or evaluate your current use of this tool is to review the PRAPARE Implementation and Action Toolkit. If you need assistance or have questions, contact Quality Insights.

### Available Online Support Services Platforms

There are online information platforms available that provide support services and social care solutions to improve health equity.

### Findhelp.org

Findhelp.org is a database curated by Findhelp, a public benefit corporation. This platform connects individuals with resources for food, housing, medical care, transportation, support, education, legal, and much more. Quality Insights has created a resource to help you navigate and utilize the Findhelp.org online platform.

PA Navigate is a statewide, online community information tool launched by the Pennsylvania Department of Human Services. It can address Pennsylvanians' health and social care needs by connecting them to community services such as food, housing, and childcare.


The Findhelp platform powers PA Navigate and facilitates referrals and communication between healthcare providers, community-based organizations, and social service agencies. This platform is accessible to both healthcare professionals and the public and hopes to improve health and social outcomes across the state.

PA Navigate can be integrated into EHRs for provider ease. This integration allows providers to make direct referrals within the patient's EHR and streamlines connecting patients with SDOH resources and support. The platform then tracks referrals, providing information regarding outcomes back into the patient's EHR.

To learn more about the benefits of PA Navigate, watch Pennsylvania's Secretary of Human Services, Valeria A. Arkoosha, MD, MPH, explain more. The Pennsylvania Department of Health developed a YouTube video to help you utilize and find the services you need using PA Navigate and a flyer to share with staff members and patients.

**Utilizing ICD-10-CM Codes (Z Codes)**

Applying ICD-10-CM codes, specifically Z codes, is fundamental in addressing patients' social needs within clinical and hospital settings. Z codes identify non-medical conditions that influence health status and outcomes, enabling providers to gain a comprehensive view of factors affecting a patient's health beyond clinical symptoms. Existing Z codes identify issues related to a patient's socioeconomic situation, including education and literacy, employment, housing, lack of adequate food or water, or occupational exposure to risk factors like dust, radiation, or toxic agents. Robust data collection related to patients' social needs is critical to clinic and hospital efforts to improve the health of their patients and communities. Clinical staff should prioritize the importance of documenting and coding patients' social needs and allow coders extra time to integrate coding for social determinants into their processes. Employing a standardized approach to screening, documenting, and coding social needs enables sites to:

- Track the social needs that affect their patients, allowing personalized care to address both medical and social needs.
- Aggregate data across the patient population to develop a social determinants strategy.
- Identify population health trends and guide community partnerships.

## What Can Quality Insights Do to Support the Next Step?

Contact your Quality Insights Practice Transformation Specialist for support in effectively implementing ICD-10-CM Z codes into your workflow. Through education, training, workflow integration, and data management with Quality Insights, Z codes can enhance your practice's ability to identify and address the SDOH that impact your patients.

**Z-code Resources**

Download the below coding resources for more information about Z codes, including coding categories, frequently asked questions, and addressing common barriers:

- Quality Insights: Quick Guide to Social Determinants of Health ICD-10 Codes
- American Hospital Association: ICD-10-CM Coding for Social Determinants of Health
- CMS: Using Z Codes: The Social Determinants of Health (SDOH) Data Journey to Better Outcomes Infographic
- CMS: 2025 ICD-10-CM Official Guidelines for Coding and Reporting
- EHI: e-Health Initiative Explains ICD-10-CM Coding for Social Determinants of Health

## Evaluating Blood Pressure

The CDC acknowledges that guidelines used to diagnose HTN may differ among healthcare professionals. According to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, some healthcare professionals diagnose patients with HTN when systolic blood pressure (SBP) ≥ 140 mmHg or diastolic blood pressure (DBP) ≥ 90 mmHg. Controlled BP is defined as SBP < 140 mmHg and DBP < 90 mmHg. According to the 2017 ACC/AHA Guideline, alternate diagnosing criteria are considered when SBP ≥ 130 mmHg or DBP ≥ 80 mmHg. Controlled BP is defined as SBP < 130 mmHg and DBP < 80 mmHg.

**Blood Pressure Levels**

| The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (2003 Guideline)[2] | | The American College of Cardiology/American Heart Association Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults (2017 Guideline)[1] | |
|---|---|---|---|
| Normal | systolic: less than 120 mm Hg<br>diastolic: less than 80 mm Hg | Normal | systolic: less than 120 mm Hg<br>diastolic: less than 80 mm Hg |
| At Risk (prehypertension) | systolic: 120–139 mm Hg<br>diastolic: 80–89 mm Hg | Elevated | systolic: 120–129 mm Hg<br>diastolic: less than 80 mm Hg |
| High Blood Pressure (hypertension) | systolic: 140 mm Hg or higher<br>diastolic: 90 mm Hg or higher | High blood pressure (hypertension) | systolic: 130 mm Hg or higher<br>diastolic: 80 mm Hg or higher |

*From "High Blood Pressure Symptoms and Causes," CDC, 2024.*

## Risk-Enhancing Factors for Cardiovascular Health

In the 2023 Guideline for the Management of Patients With Chronic Coronary Disease, "risk-enhancing factors that should guide Clinician-Patient Risk Discussion for cholesterol management" are outlined on page 13, and include diagnoses of HIV and other chronic inflammatory conditions associated with accelerated atherosclerosis and premature CVD. Although LDL-C is a primary cause of atherosclerosis, other contributing risk factors exist. The **major risk factors** include cigarette smoking, HTN, dysglycemia, and other lipoprotein abnormalities. Because atherosclerosis progresses with a person's age, age is also considered a risk factor. Additionally, the guideline outlines factors such as family history (see information on familial hypercholesterolemia), ethnicity, and specific health conditions such as metabolic syndrome, chronic kidney disease, chronic inflammatory conditions, premature menopause, pre-eclampsia, and high lipid biomarkers.

### Genetics Matter

Some populations are more prone to certain medical conditions and could have racial and/or ethnic traits that influence risk. Tools used for risk assessment do not always provide accurate information about all populations or individuals.

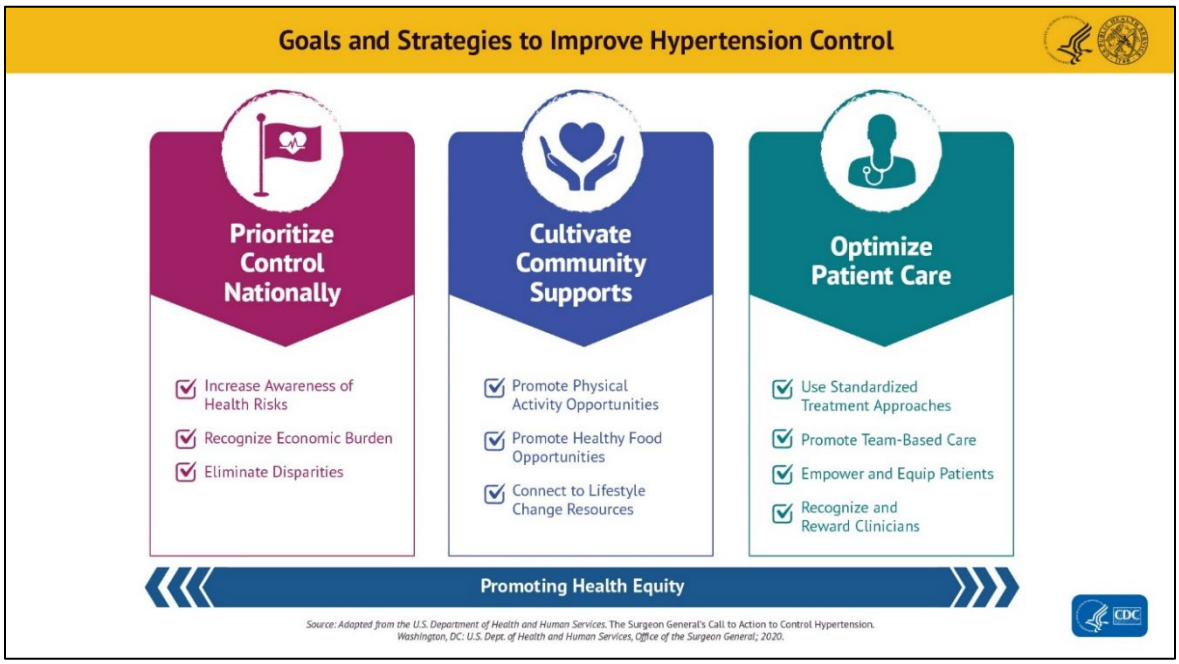
*Source: ACC, 2019.*

- For more information on cardiovascular risk management in patients with diabetes and hypertension, see the American Diabetes Association's (ADA) *Cardiovascular Disease and Risk Management: Standards of Medical Care in Diabetes--2021*
- For additional information on decision-making in preventing atherosclerotic cardiovascular disease (ASCVD), see ACC 2018 Key Points to Remember on the Use of Risk Assessment Tools to Guide Decision Making.

## The Surgeon General's Call to Action to Control Hypertension

The Surgeon General's Call to Action to Control Hypertension (Call to Action), released in October 2020, "seeks to avert the negative health effects of hypertension by identifying evidence-based interventions that can be implemented, adapted, and expanded in diverse settings across the United States" (DHDSP, 2024). This report may be utilized to enhance patient care, drive tailored interventions, educate care team staff, and guide public health collaboration.

"The *Call to Action* outlines three goals to improve hypertension control across the United States (US), and each goal is supported by strategies to achieve success" (CDC, 2024).




*From [The Surgeon General's Call to Action to Control Hypertension](), CDC, 2024.*

**Learn more about the Surgeon General's Call to Action:**

- CDC Prevent and Manage High Blood Pressure website
- The Surgeon General's Call to Action to Control Hypertension: How Health Care Professionals Can Help
  CDC High Blood Pressure: The Surgeon General's Call To Action to Control Hypertension

## Preventing and Treating High Blood Pressure is About More than Just the Numbers

A February 17, 2022, *Health and Well-Being Matter* feature from Paul Reed, MD, Director of the Office of Disease Prevention and Health Promotion, emphasized that "preventing, identifying, and treating hypertension should be about much more than just measuring BP and prescribing medicine. Instead, addressing high BP should be an exemplar of comprehensive, person-centered care — promoting greater overall health, well-being, and personal resilience." Read more on the ODPHP's blog.

The Top Ten Take-Home Messages to Reduce Risk of ASCVD through Cholesterol Management highlights current cholesterol-lowering recommendations, including lifestyle interventions, statin and non-statin regimens, risk assessment tools, and management of specific patient populations.

A Guidelines Made Simple summary is also available and highlights key messages listed below:

| Top Ten Take-Home Messages to Reduce Risk of ASCVD through Cholesterol Management | |
|---|---|
| **1** | All individuals should emphasize a heart-healthy lifestyle across the life course. |
| **2** | Reduce low-density lipoprotein cholesterol (LDL-C) in patients with clinical ASCVD with high-intensity statin therapy or maximally tolerated statin therapy. |
| **3** | In very high-risk ASCVD patients, use an LDL-C threshold of 70 mg/dL to consider the addition of non-statins to statin therapy. |
| **4** | In patients with severe primary HCL (LDL-C level ≥ 190 mg/dL), begin high-intensity statin therapy without calculating the 10-year ASCVD risk. |
| **5** | In patients 40-75 years of age with diabetes mellitus and LDL-C ≥ 70 mg/dL, start moderate-intensity statin therapy without calculating the 10-year ASCVD risk. |
| **6** | In adults 40-75 years of age evaluated for primary ASCVD prevention, have a provider-patient risk discussion before starting statin therapy. |
| **7** | In adults 40-75 years of age without diabetes mellitus and with LDL-C levels >= 70 mg/dL, at a 10-year ASCVD risk of ≥ 7.5%, start a moderate-intensity statin if a discussion of treatment options favors statin therapy. |
| **8** | In adults 40 to 75 years of age without diabetes mellitus and a 10-year risk of 7.5% to 19.9% (intermediate risk), risk-enhancing factors favor the initiation of statin therapy (see #7). |
| **9** | In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels ≥ 70 mg/dL at a 10-year ASCVD risk of ≥ 7.5% to 19.9%, if a decision about statin therapy is uncertain, consider measuring CAC. |
| **10** | Assess adherence and percentage response to LDL-C-lowering medications and lifestyle changes with repeat lipid measurement four to 12 weeks after statin initiation or dose adjustment, repeated every three to 12 months, as needed. |

*Source: 2018 Guideline on the Management of Blood Cholesterol, American College of Cardiology, 2019.*

Download the AHA Guidelines on-the-go mobile app and stay up-to-date no matter where you are. Actionable at the point of care, users can retrieve relevant content and access additional support details and evidence.

- Download for iPhone/iOS.
- Download for Android.

**Assessment Resources for Providers:**

- ACC Cholesterol Guideline Tool: Overview of Primary & Secondary Prevention
- 2019 AHA/ACC Special Report: Use of Risk Assessment Tools to Guide Decision-Making in the Primary Prevention of Atherosclerotic Cardiovascular Disease
- 2020 AHA *Circulation: Cardiovascular Imaging* research article: Predictive Value of Coronary Artery Calcium Score Categories for Coronary Events Versus Strokes: Impact of Sex and Race

## National Campaigns Support BP Control and/or Cholesterol Management

Several national campaigns are raising awareness of the importance of BP control and cholesterol management to prevent stroke. One such initiative promoted by Quality Insights is Healthy People 2030. Healthy People 2030 is the fifth iteration of national public health priorities created by the U.S. Department of Health and Human Services' Office of Disease Prevention and Health Promotion in 1980.

As a Healthy People 2030 Champion, Quality Insights is committed to working toward a society where all people can achieve their full potential for health and well-being across the lifespan, the Healthy People 2030 vision. Healthy People 2030 has several objectives that target BP control and cholesterol management and address SDOH to improve CV health and reduce deaths from stroke (Murphy et al., 2017; Benjamin, E.J. et al., 2019).

Included in Healthy People 2030 are objectives aimed at increasing the control of high blood pressure in adults to 18.9%. 2017-2020 data reflect that only 16.1% of adults had their BP under control. The initiative additionally targets increasing cholesterol treatment in adults to 54.9%. 2013-2016 data reflect a rate of 44.9%. This particular objective is one of 23 Leading Health Indicators, a subset of high-priority objectives that affect significant causes of death and disease in the United States.

Other related objectives of the Healthy People 2030 campaign include:

- Reduce the proportion of adults with high BP
- Reduce the proportion of adults with chronic kidney disease who have elevated BP
- Improve CV health in adults
- Reduce stroke deaths
- Reduce coronary heart disease deaths

Additional resources for healthcare providers and patients are listed below.

| Blood Pressure Control Initiatives |
| --- |
| **Live to the Beat** - Led by the CDC Foundation and the Million Hearts®, this is a belief change campaign promoting heart-healthy eating, physical activity, and working with a healthcare professional to improve the CV health of Black adults aged 35 to 54. Also offered as part of the campaign is Pulse Check, an interactive learning tool for those empowered to take charge of their health.  |
| **Know Your Numbers** - Launched by the National Forum for Heart Disease and Stroke Prevention, this campaign provides multiple videos and media resources emphasizing the importance of patients knowing their BP, blood sugar, and cholesterol levels to improve and maintain CV health. |
| **Heart-Healthy Steps** - Led by the CDC Foundation and the Million Hearts® initiative, this website supports a heart-healthy lifestyle for adults 55 and over by encouraging small steps, like eating healthy, getting active, and lowering stress. This program is part of the "Start Small. Live Big." campaign. |

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| **U.S. Department of Health & Human Services Office on Women's Health Self-Measured Blood Pressure Partnership Program** - Quality Insights is a proud partner of this national network of public and private organizations to amplify and increase knowledge about HTN and CV disease, expand access to SMBP resources, and more. |
| **National Heart, Lung, and Blood Institute: The Heart Truth®** - This health education program focuses on ensuring women know about their risk for heart disease and encourages them to implement heart-healthy living practices. Review these high BP education resources. |
| **Release the Pressure Campaign** - This coalition of national healthcare professional organizations and heart health experts aims to empower Black women to enhance their self-care through improved heart health. Visit their patient-facing website for BP resources. |
| **Get Down With Your Blood Pressure™** or **Éntrale a Bajar tu Presión™** - This high BP control campaign is led by the American Medical Association (AMA) and the AHA. It encourages daily BP monitoring and regular communication with the healthcare provider. |
| **National Hypertension Control Roundtable** (NHCR) - This CDC Foundation and National Association of Chronic Disease Directors-led coalition is dedicated to eliminating disparities in blood pressure control by supporting people where they live, learn, work, play, and pray. Quality Insights is a participating member of the NHCR. |

## A Practical Solution: Self-Measured Blood Pressure (SMBP) Monitoring

SMBP interventions combined with team-based care or additional clinical support (e.g., educational classes, one-on-one counseling, and telephonic/web-based support) can assist patients in reducing their blood pressure, facilitate a more precise diagnosis of HTN, improve access and quality of care, and prove to be cost-effective.


**Self-Measured Blood Pressure Monitoring (SMBP)** is defined as the regular measurement of blood pressure by a patient at home or elsewhere, outside the clinic setting, using a personal home BP measurement device.

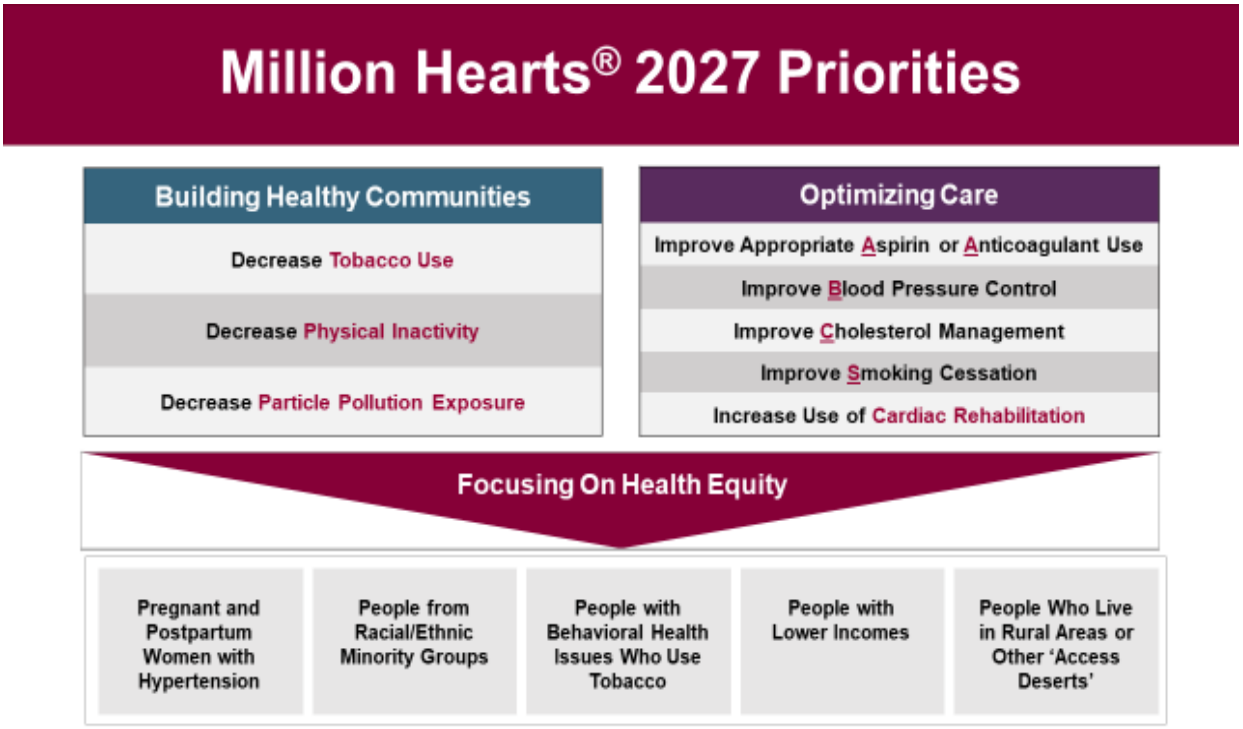
*Source: Million Hearts®, 2023.*

## Evidence Supporting SMBP

The effectiveness of SMBP is backed by scientific evidence accumulated over many years.

Recent findings supporting its benefits include:

- In April 2021, the U.S. Preventive Services Task Force (USPSTF) issued a Grade A Final Recommendation Statement recommending "screening for hypertension in adults 18 years or older with office blood pressure measurement (OBPM). The USPSTF recommends obtaining BP measurements outside of the clinical setting for diagnostic confirmation before starting treatment."
- A 2020 Joint Policy Statement from the AHA and AMA emphasizes the established clinical benefits and potential cost-effectiveness of SMBP over office BP. Read the AMA's 6 key takeaways for physicians.
- A 2020 *Journal of Community Health* paper reviewed a 2016-2018 CDC-funded project of the National Association of Community Health Centers (NACHC), the YMCA of the USA, and the Association of State and Territorial Health Officials (ASTHO) to increase the use of SMBP through coordinated action of health department leaders, community organizations, and clinical providers. Nine health centers in Kentucky, Missouri, and New York developed and implemented collaborative SMBP approaches, leading to 1,421 patients with uncontrolled HTN receiving a recommendation or referral to SMBP. Associated SMBP implementation methods, toolkits, and bilingual resources, including recommendations for statin therapy for high-risk patients with HCL, can be accessed on the National Association of Community Health Centers (NACHC) Million Hearts® Initiative web page.
- Million Hearts® released the second edition of its Hypertension Control Change Package in 2020. It features tested tools and resources that have enabled HTN Control Champions to achieve high levels of BP control with patients. SMBP-focused content is included as an important aspect of HTN control.




*Source:* Million Hearts®, *2024*.

**NACHC SMBP Best-Practices Video**

Gain valuable insight into effective strategies used in nine health centers to improve the use of SMBP by watching the three-minute video, Collaborative Care Models for Improving Hypertension Control through SMBP Monitoring, created by the National Association of Community Health Centers.

# ASSESSMENT: Knowing the Numbers, Using the Tools

## Monitoring Blood Pressure Levels in Adults

For healthcare professionals utilizing the 2017 ACC/AHA Guideline, it is vital to understand that "blood pressure is categorized into four levels based on average blood pressure measures in a healthcare setting (office pressures): normal, elevated, and stage 1 or 2 hypertension." The table below reflects these categories and can assist healthcare professionals in accurately assessing and categorizing blood pressure levels in adults.

## Categories of BP in Adults*

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

*Individuals with SBP and DBP in 2 categories should be designated to the higher BP category.
Table 6

*From "2017 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Guidelines Made Simple, A Selection of Tables and Figures," by ACC/AHA Task Force on Clinical Practice Guidelines, 2017.*

According to the 2017 ACC/AHA Guideline, the table below "provides best estimates for corresponding home, daytime, nighttime, and 24-hour ambulatory levels of BP, including the values recommended for identification of hypertension with office measurements."

## Corresponding Values of Systolic BP/Diastolic BP for Clinic, Home (HBPM), Daytime, Nighttime, and 24-Hour Ambulatory (ABPM) Measurements.

| Clinic | HBPM | Daytime ABPM | Nighttime ABPM | 24-Hour ABPM |
|---|---|---|---|---|
| 120/80 | 120/80 | 120/80 | 100/65 | 115/75 |
| 130/80 | 130/80 | 130/80 | 110/65 | 125/75 |
| 140/90 | 135/85 | 135/85 | 120/70 | 130/80 |
| 160/100 | 145/90 | 145/90 | 140/85 | 145/90 |

HBPM, home blood pressure monitoring; SBP, systolic blood pressure/ DBP, diastolic blood pressure; ABPM indicates ambulatory blood pressure monitoring

*From "2017 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Guidelines Made Simple, A Selection of Tables and Figures," by ACC/AHA Task Force on Clinical Practice Guidelines, 2017.*

## Making a Difference through Accurate Measurement

Accurate BP measurement is essential for estimating CVD risk and managing HTN. Mitigating common mistakes can help ensure accurate diagnosis and speed up treatment time, improving overall BP control outcomes. The following sample of resources from Target: BP™ outlines practical approaches to improving BP control for your patients through accurate measurement.

- BP Positioning Challenge: Can you identify common positioning errors? Encourage your staff to take the challenge as a quick means to brush up on proper BP measurement techniques.
- Measure Accurately Pre-Assessment: Use this resource to help your healthcare organization identify areas for improvement in BP measurements in the clinical setting.
- 7 Simple Tips To Get An Accurate Blood Pressure Reading: This guide provides information and advice on conducting in-office BP measurements accurately to ensure that every reading is as precise as possible.
- Technique Quick-Check: This resource helps verify consistent measurement techniques among all members of your healthcare team.
- CME Course: Measuring Blood Pressure Accurately: This CME course is designed to enhance the individual understanding and skills in measuring BP for healthcare professionals.

## Educational Resources for Patients: BP Measurement

As important as ensuring accurate BP readings in the clinical setting is, the same is true for patients collecting measurements at home. SMBP empowers patients to play an active role in managing their hypertension and cardiovascular health.

Review the links below to access important educational resources to guide your patients' participation in SMBP.

| Organization | SMBP Patient Resource | Summary |
|---|---|---|
| American Medical Association | How to Measure Blood Pressure Accurately | A brief video that reviews seven tips to obtain an accurate BP reading. |
| | Self-Measured Blood Pressure Cuff Selection | Identify steps to determine the appropriate upper arm cuff size. |
| Quality Insights | Blood Pressure Tracker | Printable BP log that includes brief instructions for patient use. |
| | Hypertension Management Apps | Provides a listing of apps available to help patients track their BP readings. |
| Target: BP™ | What is SMBP? | Overview for patients to understand what SMBP is and why it is important. |
| | SMBP Training Video | Available in English and Spanish, this educational video helps train care teams and patients to properly self-measure BP. |
| | SMBP Infographic: How to Measure Your Blood Pressure at Home | Separation, positioning, and measurement are the steps to perform SMBP monitoring correctly. This document is available to download in English, Spanish, and Vietnamese. |

## Monitoring Cholesterol Levels in Adults

**MONITOR**

People over 20 who do not have CVD should have a risk assessment every 4 to 6 years.

*Source: AHA, 2024.*

The AHA recommends that all adults age 20 or older have their cholesterol (and other traditional risk factors) checked every four to six years, as long as their risk remains low. After age 40, a 10-year risk of having a heart attack or stroke should be calculated (more information included on page 8). People with CVD and those at elevated risk may need their cholesterol and other risk factors assessed more frequently. This targeted approach ensures that individuals at higher risk receive the appropriate care and interventions needed to manage their condition effectively.

The guideline outlines cholesterol values as acceptable, borderline, and high measurements for adults. All values are in milligrams per deciliter (mg/dL):

| Rating | Total Cholesterol | HDL Cholesterol | LDL Cholesterol | Triglycerides |
|---|---|---|---|---|
| **Good** | Less than 200 | An ideal is 60 or higher; 40 or higher for men and 50 or higher for women is acceptable | Less than 100; below 70 if coronary artery disease is present | Less than 149 |
| **Borderline** | 200–239 | N/A | 130–159 | 150–199 |
| **High** | 240 or higher | N/A | 160 or higher; 190 considered very high | 200 or higher; 500 considered very high |
| **Low** | N/A | less than 40 | N/A | N/A |

HDL (high-density lipoprotein) cholesterol; LDL (low-density lipoprotein) cholesterol

*Source: National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)*

## Monitoring Cholesterol Levels in Children and Adolescents

A scientific statement, *Cardiovascular Risk Reduction in High-Risk Pediatric Patients*, released by the AHA in 2019, cites that an estimated **"six percent of all youth two to 19 years old (equating to > 4,000,000 children and adolescents) are afflicted with severe obesity in the U.S**." Unlike moderate (class I) obesity or overweight, rates of severe obesity have increased over the past decade.

This report highlights that **children and adolescents *may* be at higher risk for CVD**. Primary prevention of ASCVD over the lifespan requires attention to preventing or managing ASCVD risk factors beginning early in life.

### BE ALERT EARLY

To reduce risk of heart disease, stroke and other major health issues, take a "Lifespan" Approach. If there is a family history, it is reasonable to test children as young as two.

*Source: AHA, 2018.*

Physically active children who have a healthy diet, are not overweight, and do not have a family history of HCL are at a lower risk for having HCL. However, abnormal lipid levels are relatively common in children and adolescents, affecting approximately one in five adolescents.

In July 2023, the U.S. Preventive Services Task Force (USPSTF) updated it's Recommendation Statement for *Lipid Disorders in Children and Adolescents: Screening*. Visit the USPSTF website to stay up-to-date with the recommendations.

The USPSTF 2023 guideline prioritizes the importance of identifying children, adolescents, and young adults with signs and symptoms of familial HCL, as well as estimating lifetime risk and promoting lifestyle risk reduction. In children and adolescents without cardiovascular risk factors or a family history of early CVD, it may be reasonable to measure a fasting lipid profile or non-fasting, non-HDL cholesterol once between the ages of nine and 11 years and again between the ages of 17 and 21 years, to detect moderate to severe lipid abnormalities. However, the USPSTF found insufficient evidence to support screening before age 20 years in asymptomatic children.

**The table below** includes the recommended cholesterol levels for children according to the guidelines. All values are in mg/dL.

| Rating | Total Cholesterol | HDL Cholesterol | LDL Cholesterol | Triglycerides |
|---|---|---|---|---|
| **Good** | 170 or less | Greater than 45 | Less than 110 | Less than 75 in children 0–9; less than 90 in children 10–19 |
| **Borderline** | 170–199 | 40-45 | 110–129 | 75-99 in children 0–9; 90–129 in children 10–19 |
| **High** | 200 or higher | n/a | 130 or higher | 100 or more in children 0–9; 130 or more in children 10–19 |
| **Low** | N/A | Less than 40 | N/A | N/A |

**HCL Assessment Resources for Providers:**

- ACC Cholesterol Guideline Tool: Overview of Primary & Secondary Prevention: A concise overview of recommendations for preventing and treating HCL.
- AHA Check. Change. Control™ Cholesterol Podcast Series: Offers expert insight and discussion on the assessment and management of HCL.
- ACC Comparison Tool: 2013-2018: Review side-by-side comparison of guideline recommendations.
- ACC Cholesterol Guideline Hub: Use the Hub to locate comprehensive, easy-to-navigate resources to help both you and your patients put the guidelines into practice.
- Changes in Body Mass Index Among Children and Adolescents During the COVID-19 pandemic: *Journal of the American Medical Association* (August 2021): Research Letter:

## ASCVD Risk Assessment

Evaluating atherosclerotic cardiovascular disease (ASCVD) is a crucial initial step in determining treatment options for primary prevention. Conducting a quantitative 10-year risk assessment, utilizing established ASCVD risk factors along with a validated risk prediction tool, is essential in guiding this process. The ASCVD Risk Estimator Plus, intended and validated for use in patients aged 40-75 years, is currently recommended for assessing a patient's 10-year CVD risk or lifetime risk estimation in younger adults to inform the intensity of statin dosing. This tool is available through the ACC and AHA app or by accessing the online version. A patient-facing risk calculator is also available from AHA.

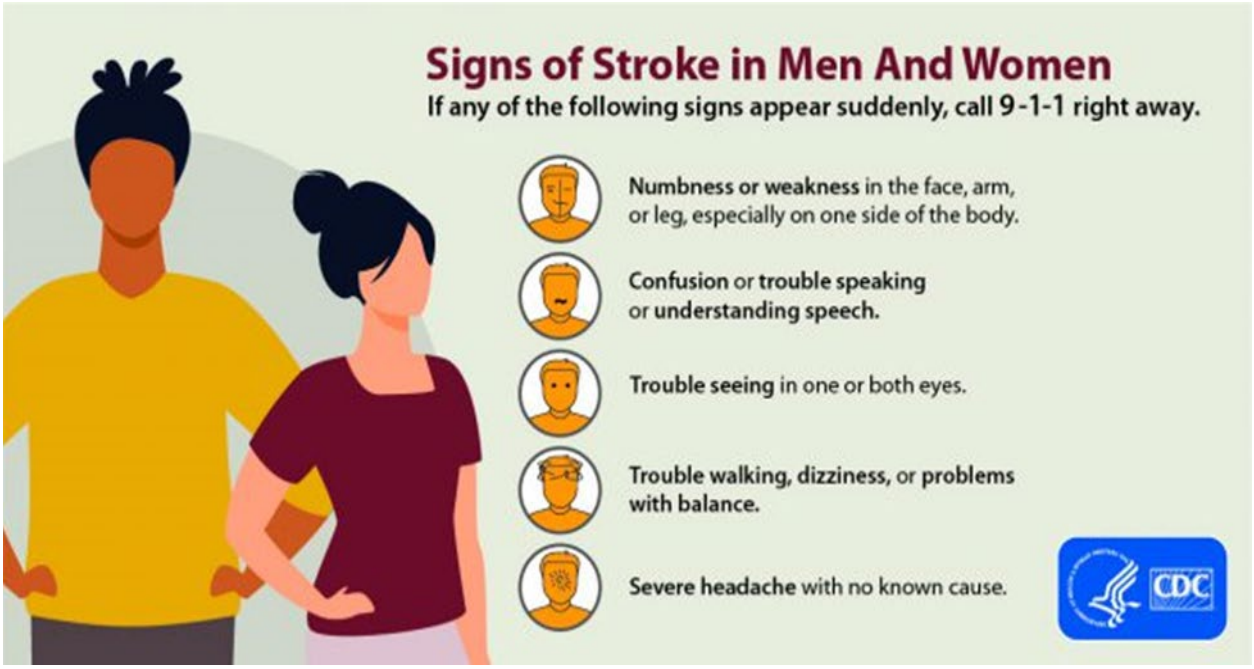
## Coronary Artery Calcium (CAC) Score

Calculating the coronary artery calcium (CAC) score is recommended among patients 40 years and older with an uncertain risk status to aid in prevention and/or treatment decision-making. This non-invasive computerized tomography (CT) scan of the heart calculates the risk of developing coronary artery disease (CAD) by measuring the amount of calcified plaque in the coronary arteries. For examples of candidates who might benefit from knowing they have a zero CAC score, see page 15 of the 2018 Guidelines Made Simple.

**Improving Stroke Identification and Outcomes**

Target: Stroke℠ is an initiative resulting from collaboration between the AHA and the American Stroke Association (ASA) that aims to assist hospitals with decreasing their "door-to-needle" times, the critical period from a stroke patient's arrival at the hospital to the administration of clot-busting medication. The Target: Stroke℠ initiative exists in conjunction with Get with the Guidelines- Stroke®, an in-hospital program to improve the care of stroke patients, aimed at promoting strict adherence to current scientific guidelines. By implementing these programs, hospitals can equip themselves with the tools and resources necessary to improve stroke care delivery.

Patient education is crucial for improving stroke outcomes by recognizing early signs of stroke. By recognizing the symptoms outlined in the graphic below, such as numbness, confusion, and dizziness, individuals can take swift action to ensure medical intervention is administered as quickly as possible.




*Source: CDC, 2024.*

## Team-Based Care to Improve Cardiovascular Health and Outcomes

The Community Preventive Services Task Force (CPSTF) recommends team-based care to improve a patient's BP control. Team-based care is an approach to achieving BP control in which care is provided by a team consisting of the patient and various health professionals, including primary care providers, pharmacists, nurses, dietitians, social workers, or other health workers, rather than by a single doctor. Care team members work together to help patients manage their medications, increase healthy behaviors, and follow their BP control plan.

**Provider Resource**

Unify your team around CV health prevention by reviewing Quality Insights' Care Team Interventions to Implement American Heart Association CVD Primary Prevention Guidelines.

A CPSTF systematic review "shows team-based care increases the proportion of patients with controlled blood pressure and reduces systolic (SBP) and diastolic (DBP) blood pressure." Furthermore, CPSTF's review of economic evidence finds that providing team-based care is cost-effective, making it an option for all health systems aiming to improve patient BP management outcomes. For additional information, review the full CPSTF Finding and Rationale Statement.

**Benefits of Team-Based Care and Responsibility for Addressing SDOH**

Implementing team-based care is crucial to prevent and reduce CVD risk. Emphasis should be on HTN/HCL prevention, detection, control, and management while addressing social barriers to improve outcomes. It is believed that adding health equity as a fifth goal in healthcare will rapidly improve population health.

The medical community has the opportunity to foster and promote inclusiveness in a value-based care model by focusing on patient-centered care, population health, cost efficiency, care team well-being, and health equity. This approach not only promotes better health outcomes but also contributes to the sustainability of the healthcare system.


*Adapted from CHESS Health Solutions, The Quintuple Aim, 2023.*

In 2021, the CDC's Hilary Wall, Acting Lead, Million Hearts® Science Team, and a team of experts published "How Do We Jump Start Self-Measured Blood Pressure Monitoring in the United States Beyond the Published Literature" in the *American Journal of Hypertension.* This publication highlights the importance of SMBP as a key strategy for improving BP control among individuals in the United States. The federal and national actions timeline started in June 2008, with a Call to Action for using and reimbursing home BP monitoring (see Table 1).

In 2024, we have yet to establish national standards and expansive insurance coverage for blood pressure monitors for home use, which has been a barrier for patients using SMBP; however, efforts to address these challenges include the creation of resources like **ValidateBP.org**, a website that provides a list of validated blood pressure devices. Additionally, some states have established Medicaid coverage requirements for BP devices. Implementing team-based care is imperative to establishing an optimal SMBP program in practices with steps for successful implementation and monitoring. The table below displays SMBP tasks by role. The National Community Health Centers SMBP Implementation Guide provides additional resources to support implementing an SMBP program.

| Must Be Done by a Licensed Clinician | Can Be Done by a Non-licensed Person (e.g., medical assistant, local public health department, community health organization, community health workers) | Must Be Done by Patient |
|---|---|---|
| 1. Diagnose hypertension<br>2. Prescribe medication(s)<br>3. Provide SMBP measurement protocol<br>4. Interpret patient-generated SMBP readings<br>5. Provide medication titration advice<br>6. Provide lifestyle modification recommendations | 1. Provide guidance on home blood pressure (BP) monitor selection<br>2. If needed, provide home BP monitor (free or loaned)<br>3. Provide training on using a home BP monitor<br>4. Validate home BP monitor against a more robust machine<br>5. Provide training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log)<br>6. Reinforce clinician-directed SMBP measurement protocol<br>7. Provide outreach support to patients using SMBP<br>8. Share medication adherence strategies<br>9. Provide lifestyle modification education | 1. Take SMBP measurements<br>2. Take medications as prescribed<br>3. Make recommended lifestyle modifications<br>4. Convey SMBP measurements to care team<br>5. Convey side effects to care team |

| Optional Tasks – Can be Done by a Non-licensed Person |
|---|
| 1. Reinforce training on using a home BP monitor |
| 2. Reinforce training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log) |

*Source: NACHC, 2018.*

Multiple studies assert the need for standardized treatment protocols and targeted strategies for achieving BP control by addressing the differing barriers of each racial/ethnic group. The CMS is a tool to assist healthcare stakeholders with identifying, prioritizing, and taking action to achieve health equity for all populations.

According to CMS, "Participants receive personalized technical assistance focused on strengthening your quality improvement program through a series of consultations from subject matter experts." Provided on the tool is an email address for health equity technical assistance.

To strengthen your care team and provide optimal patient care for HTN/HCL management, review the resources below.

**Resources for Promoting SMBP**

| Organization | Resources | Description |
|---|---|---|
| CDC | Best Practices for Heart Disease and Stroke | The guide details 18 strategies to address heart disease, stroke, and other cardiovascular conditions. |
| Target: BP™ | Implement SMBP | Step-by-step guidance to help you launch a successful program. |
| | Target: BP™ Combined Quick Start Guides | Serves as a reference for the care team. |
| | Webinar: Evolving SMBP Policy and Practice | Discusses policy developments, program design, reimbursement, successes, and challenges associated with SMBP. |
| Million Hearts® | An Economic Case for Self-Measured Blood Pressure (SMBP) Monitoring | One-pager that provides information on return on investment based on Medicare reimbursement. |
| | Self-Measured Blood Pressure Monitoring: Action Steps for Clinicians | Guide for implementation of SMBP plus clinical support in four key areas. |
| | Hypertension Control Change Package (HCCP), 2nd Edition | Presents a listing of process improvements that outpatient clinical settings can implement. It comprises change concepts, ideas, and evidence- or practice-based tools and resources. |

**Additional Resources:**

- Register for the Million Hearts® SMBP Forum to learn best practices and troubleshoot obstacles with others. The Forum meets online quarterly.
- Quality Insights 2021 White Paper: *Team Up for Quality Care: The Role of Primary Care Teams in Prevention of Cardiovascular Disease*
- Success Story: Pennsylvania-based Million Hearts® Hypertension Control Champions

## Leveraging the Care Team to Address Barriers to Statin Adherence

A 2019 article featured in *U.S. Pharmacist* cites nonadherence to statin therapy as a pervasive issue that can lead to poor health outcomes, including CVD-related emergency department visits, increased healthcare costs, and mortality. A comprehensive care team approach rooted in understanding the causes behind patient nonadherence and a willingness to engage with nonadherent patients may improve future adherence or adherence with other caregivers.

## Assessing and Improving Medication Adherence

Medication adherence is a significant barrier to the control of HTN and HCL. A scientific statement (2021) from the AHA listed many factors associated with nonadherence in patients with HTN. The factors include but are not limited to low health literacy, lack of health care insurance, lack of positive reinforcement from providers, the complexity of medication regimen, provider-patient relationship, lack of provider knowledge about adherence and interventions for improving it, cognitive impairment, chronic conditions, and perceived benefit of treatment. There are many correlating factors present with suboptimal adherence to HCL treatments. In Table 2 of the AHA statement, there is a list of "Factors Associated with Nonadherence" with patient, provider, and health system-related causes. These factors contribute to nonadherence to dietary and medication recommendations. Shared decision-making with the patient, in addition to a multidisciplinary approach, can improve adherence. Improving these areas will increase quality and reduce costs.

**The following resources are available to assist you in improving medication adherence in your practice setting:**

- The Medication Adherence Office Protocol can assist medical practices with educating the care team to promote medication adherence and establish a protocol to ensure communication and patient education.

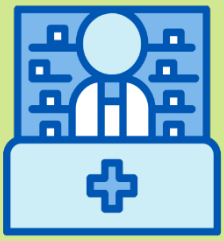
- Adherence Estimator®: This tool is a patient-centered resource designed to help you gauge a patient's likelihood of adhering to newly prescribed oral medication for certain chronic, asymptomatic conditions.
- Free Apps to Help You Better Manage Your Medicines: This handout provides a list of useful apps your patients can download to help them track and monitor their medication usage.
- For assistance with addressing health literacy, review Quality Insights' Health Literacy Supplement (October 2022).

Another evidence-based strategy for addressing medication adherence is collaborating with pharmacists as extended team members to provide medication therapy management (MTM). Pharmacists play a crucial role in reducing the risk of heart disease and stroke in the U.S.

**For additional guidance on collaborating with pharmacists to improve your patient outcomes:**

- The Pennsylvania Pharmacists Association offers an array of resources promoting and advancing MTM in pharmacies statewide.
- The Pharmacists' Patient Care Process Approach: An Implementation Guide for Public Health Practitioners Based on the Michigan Medicine Hypertension Pharmacists' Program: This CDC implementation guide (2021) encourages public health practitioners and health care professionals to collaborate with pharmacists in HTN management through the Pharmacists' Patient Care Process. The guide includes key examples that healthcare teams can replicate in their own programs.

## The Pennsylvania Pharmacists Care Network (PPCN)



PPCN is an organization committed to working collaboratively with healthcare providers, standing as a consortium of over 200 pharmacies committed to delivering exceptional care to their patients. Providers may collaborate with PPCN pharmacists to cultivate a comprehensive medication management workflow. PPCN pharmacists may assist in providing patients with education as it relates to taking their medications correctly and managing potential side effects. Leveraging resources and expertise available through PPCN enables healthcare providers to enhance medication adherence among their patients, leading to improved health outcomes and management of chronic CV health conditions.

## Shared Decision-Making and Statin Choice

The Mayo Clinic has developed an evidence-based, shared decision making tool, Statin Choice Decision Aid to assist healthcare providers in determining individualized estimation of risks and benefits with and without the use of statins.

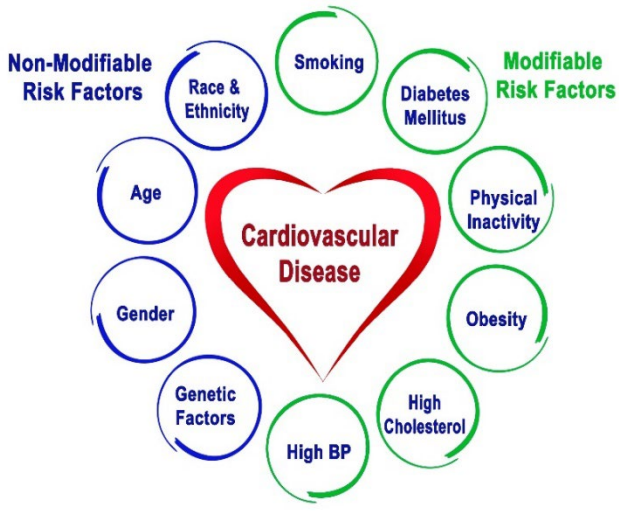
**Learn more about the Statin Choice Decision Aid** and how you can integrate its use into standard practice workflow by viewing the demo video presentation and accessing the Statin Choice Toolkit.

It is **recommended** that providers assess medication adherence and efficacy every four to twelve weeks using a fasting lipid test. Based on individualized patient results, retests should then occur every three to twelve months. This approach emphasizes the importance of shared decision-making and the significance of continuous patient monitoring with individualized care to effectively manage high cholesterol levels.

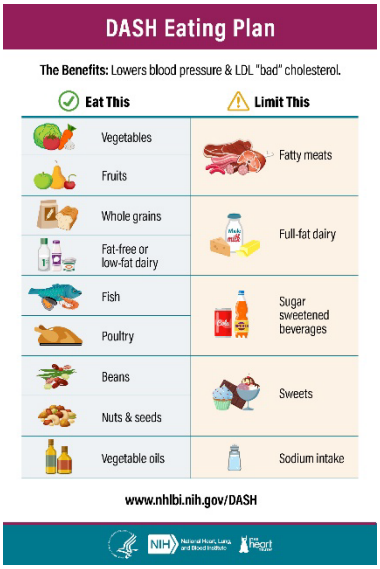
# ACTION: Implement BP Control Programs at Your Practice and Referrals to Lifestyle-Change Programs

## Evidence-Based Lifestyle Change Strategies and Programs

The 2019 ACC/AHA Guideline highlights the importance of living a healthy lifestyle, comprised of a nutrient-dense diet and the inclusion of regular physical activity. Lifestyle changes that have proven to be effective include weight loss, a healthy diet with reduced intake of dietary sodium, enhanced intake of dietary potassium, physical activity, and moderation in alcohol intake. By focusing on these lifestyle adjustments, individuals can significantly improve their heart health and reduce their risk of cardiovascular diseases.



Annually, *U.S. News & World Report* and its panel of health experts rank diets on various factors, from their heart healthiness to their effectiveness in helping individuals lose weight.



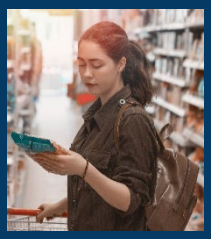

Best Diets 2025 ranked the Dietary Approaches to Stop Hypertension (DASH) diet second in best diets overall and third in Easiest Diets to Follow. The DASH diet emphasizes the consumption of fruits, vegetables, whole grains, and lean proteins, while reducing the intake of salt, red meat and added sugars. This diet is intended to be practical and accessible for those looking to improve their overall health and well-being.

Including the DASH diet as an example of a healthy dietary pattern in the *Dietary Guidelines for Americans, 2020-2025* further bolsters its value. The National Institutes of Health states "people following DASH can naturally lower their blood pressure by 3 to 20 points within weeks or months."

**For patients interested and ready to begin their journey towards improving their health and lifestyle, the following resources may be of assistance:**

- The DASH Eating Plan is a flexible and balanced plan that helps create a heart-healthy lifestyle.
  - From Quality Insights: DASH Your Way to Lower Blood Pressure
  - Visit the National Heart, Lung, and Blood Institute (NHLBI) website for additional heart-healthy cooking resources for a wide range of ages and ethnicities.
  - From the NHLBI: Your Guide to Lowering Your Blood Pressure with DASH
- Sodium reduction patient resources:
  - Why Should I Limit Sodium? (AHA)
  - Sodium in Your Diet: Use the Nutrition Facts Label and Reduce Your Intake (FDA) – English
  - Sodium in Your Diet: Use the Nutrition Facts Label and Reduce Your Intake (FDA) – Spanish
- Life's Essential 8™: Information from the AHA on how to manage BP, control cholesterol, manage blood sugar, be more active, eat better, manage weight, quit tobacco, and get healthy sleep.

## Sodium Reduction



Encouraging patients to reduce sodium intake typically results in a reduction in BP within weeks. Read about this and other sodium reduction benefits, challenges, and strategies in the AHA's Blood Pressure Abstract.

- Smoking Cessation Program: Listing of national Quitlines in various languages, online resources, and medicines to help patients quit smoking.
    - PA Online Quitline Resources and Chat
    - PA Free Quitline Promotional Materials order form for tobacco cessation print materials directly shipped to your practice.
- "Answers by Heart" Blood Pressure Fact Sheets and Multilingual Resources, including:
    - African Americans and High Blood Pressure
    - How Can I Reduce High Blood Pressure? (available in Spanish)
    - Infographic: Consequences of High Blood Pressure (available in Spanish and Traditional Chinese)
    - Lifestyle Chart: What Can I Do to Improve My Blood Pressure? (available in Spanish and Traditional Chinese)

**The CDC recommends the following evidence-based lifestyle change programs designed to assist adults with high blood pressure in managing their condition effectively:**

- The National Healthy Heart Ambassador Blood Pressure Self-Monitoring (HHA-BPSM) Program is coming soon to locations in Eastern PA. Check the Quality Insights website for updates on program launches in 2025.
    - The HHA-BPSM awardees include:
        - Latino Connection
        - Allentown Health Bureau
        - Health Education Incorporated
        - Maternal and Family Health Services
- Taking Off Pounds Sensibly (TOPS)
- YMCA Blood Pressure Self-Monitoring Program (BPSM): Please contact your local YMCA to see if this program is available in your area.
- Curves: In-club and at-home memberships are now available.
- WW® (formerly WeightWatchers)
- Supplemental Nutrition and Assistance Program Education (SNAP-Ed)
- Expanded Food and Nutrition Education Program (EFNEP)

## Take Control with Lifestyle Change Programs in PA

- National HHA-BPSM Program
- YMCA BPSM
- National Diabetes Prevention Program (National DPP): Many patients with HTN/HCL are eligible for the National DPP. The CDC Risk Test to determine a patient's risk for prediabetes is here.

Quality Insights developed an at-a-glance guide to highlight benefits of CDC-approved lifestyle change programs available in Pennsylvania. For a handout specific to WW, TOPS, and Curves only, consider this updated resource.

## Prevention and Management of CVD Implementation: Resource Library

The following evidence-based resources provide guidance for healthcare sites. Quality Insights invites you to visit each organization's website for a complete listing of their available tools and resources.

| Organization | Implementation Resource | Summary |
|---|---|---|
| American Medical Association | U.S. Blood Pressure Validated Device Listing | Listing of BP measurement devices validated for clinical accuracy |
| | SMBP CPT® Coding | Outlines useful coding information for SMBP and RPM. |
| | 7-Step SMBP Quick Guide | Links to training videos, SMBP/RPM CPT® coding information, infographics, and SMBP logs are included. |
| American Medical Association | SMBP Program CPT Coding | Provides an overview of the implementation process and reimbursement for healthcare professionals. |
| National Association of Community Health Centers (NACHC) and Million Hearts® | SMBP Implementation Toolkit | This package consists of worksheets that will help you determine your goals and priority populations, design a protocol, assign tasks, and align your patient training approach to your practice environment. |

| | | |
|---|---|---|
| | Improving Blood Pressure Control for African Americans Roadmap | A quality improvement tool focusing on the most impactful, evidence-based interventions to improve HTN outcomes and reduce disparities. |
| Public Health Informatics Institute | Health IT Checklist for BP Telemonitoring Software | Quick-reference guide intended to complement the NACHC SMBP Implementation Toolkit. |
| Quality Insights | Steps for Launching a SMBP Program in Your Practice | Learn how to collaborate with Quality Insights to receive no-cost assistance in developing and implementing an SMBP program in your practice. |

## Remote Patient Monitoring

The CPSTF recommends telehealth interventions for the prevention and management of chronic disease conditions that can be delivered in a variety of ways, including remote patient monitoring (RPM). CPSTF asserts that the following conditions can benefit from telehealth interventions: recently diagnosed CVD, high BP, CVD, diabetes, HIV infection, end-stage renal disease, asthma, or obesity.

### Remote Patient Monitoring

"This is the use of electronic devices to record a patient's health data for a provider to receive and evaluate at a later time. For example, a patient can use RPM to measure their blood pressure regularly and send this information to their provider."

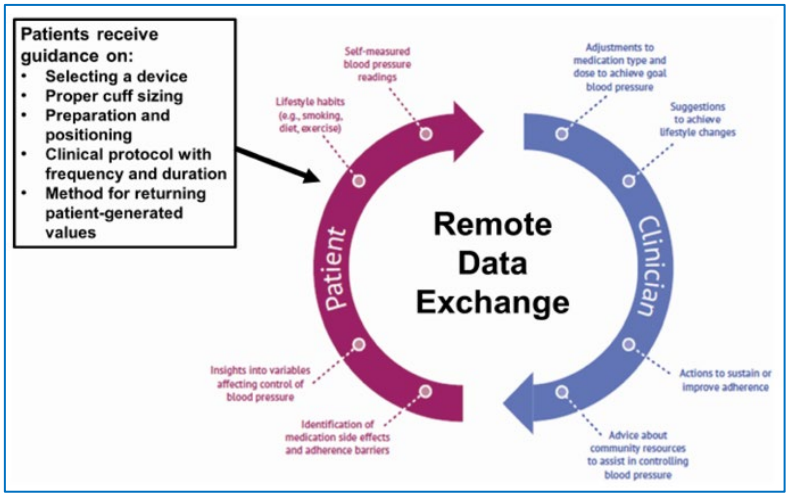
*Source: CDC, 2021.*

According to the CDC, "CPSTF found that the use of telehealth interventions can improve:

- **Medication adherence,** such as outpatient follow-up and self-management goals;
- **Clinical outcomes,** such as blood pressure control, and;
- **Dietary outcomes,** such as eating more fruits and vegetables and reducing sodium intake."

A 2022 article published in the *American Journal of Hypertension* suggests that "optimal SMBP" requires training and education of the patient on device use and the measuring of one's transmission of BP values, medication side effects, and lifestyle modifications remotely to the providers; review by the providers; remote transmission of guidance on those matters back to the patient; and an indefinite continuance of the patient-providers feedback loop." The article mentions the difficulty in quantifying the use of optimal BP but states that there is significant room and a critical need for improvement in the utilization of RPM.

**Optimal SMBP**




*From "How Do We Jump-Start Self-Measured Blood Pressure Monitoring in the United States? Addressing Barriers Beyond the Published Literature," by Wall et al., 2022.*

Many nationally recognized healthcare organizations have developed toolkits and resources for practices that implement RPM. A few of these tools include:

- AMA Remote Patient Monitoring Implementation Playbook: Step through the processes of planning and implementing RPM at your practice with this guide.
- Mid-Atlantic Telehealth Resource Center: Remote Patient Monitoring Toolkit: Designed to help audiences quickly understand RPM and determine role responsibilities, this resource offers a variety of engaging videos explaining processes for each role.
- Federally Qualified Health Center's Remote Patient Monitoring Tool Kit: This document is designed to help FQHCs determine which RPM processes will work best for their individual setting. It provides guidance on key areas for consideration when preparing for implementation.

## The EHR & You: Three Tips to Streamline HTN/HCL Management

Effective management of hypertension and cholesterol is essential for preventing long-term health issues; however, the limited face-to-face time providers have with their patients remains a challenge. The ability to focus on the patients' needs instead of a screen is critical and emphasizes the need to optimize the use of electronic health records (EHR). Below are three

key ways to utilize your EHR to improve overall hypertension and cholesterol management without losing valuable interaction time.

1. **Mind Your Measures**

   While it can be challenging to keep up with the quality measure landscape, collecting, analyzing, and sharing HTN and HCL management measure data can assist you in raising awareness of opportunities for improvement, measuring the progress of implemented workflows, and strengthening care coordination. If you are not sure where to start, click to learn more about CMS #165: Controlling High Blood Pressure and CMS #347: Statin Therapy for the Prevention and Treatment of Cardiovascular Disease.

2. **Document Referrals in Structured Data Fields**

   You may already be in the habit of regularly referring your patients to evidence-based lifestyle change programs that can decrease cholesterol levels. By ensuring that referrals are entered into structured data fields, you can readily account for who and how many patients are being referred, what types of programs are most often utilized, and run reports to ensure feedback reports are obtained from referral partners.

3. **Utilize EHR Alerts**

   Most EHRs have the capacity to provide clinical reminders (also known as Clinical Decision Support or CDS), a type of alert triggered by a parameter such as time and date, high/low threshold, or clinical indication such as the need to check a patient's cholesterol levels. Using these reminders can be especially helpful in high-volume practice settings where it can be challenging to readily identify or remember important health maintenance information.

   While CDS tools are helpful to EHR users, they are also linked to provider burden and alert fatigue. Users and developers can decrease provider burden if they can improve alert relevance, garner end-user feedback, customize alerts for the care team, measure outcomes and metrics, and continuously optimize, according to a study published in the *Yearbook of Medical Informatics*. Learn more in this 2022 AHRQ/PSNet article, Clinician collaboration to improve clinical decision support: the Clickbusters Initiative.

## Reminder: Start Tracking Your Results and Be Recognized

Participating in initiatives like the AHA's Target: BP™ program can bring acknowledgement to healthcare providers who reach and surpass hypertension management benchmarks. Quality Insights can assist your practice in applying for national recognition for evidence-based interventions and/or HTN control through the Target: BP™ initiative if you have reached 70% for National Quality Forum #0018. Once your practice achieves 80%, you may qualify to be a Millions Hearts® Hypertension Control Champion.

Not only will the facility receive recognition from the host organization, but Quality Insights will also promote the facility's Million Hearts® achievements on its website. Additionally, Quality Insights honors its partners for their work in successfully managing HTN by awarding **Hypertension Hall of Fame** awards to practices when at least 70% of their patients with HTN have their BP controlled (<140/90). The **2024 Hypertension Hall of Fame** (award for their excellent work in successfully managing HTN) and the **2023 Cardiovascular Disease Prevention Champions** (award for work in successfully managing patients with HCL in the prevention of CVD via statin therapy) winners are listed on the Quality Insights website.

## Target: BP™ Recognition Program

The Target: BP™ Recognition Program celebrates provider practices and healthcare systems that treat patients with hypertension for achieving blood pressure control rates at or above 70% or completing evidence-based interventions within the populations they serve. These achievements will ultimately reduce the number of Americans who suffer heart attacks and strokes.

Congratulations to the nearly 1,900 organizations that submitted data to be considered for the 2024 Target: BP Award Achievement and expressed their commitment to improving blood pressure control rates.

Awardees include:

- 1,035 organizations achieved Gold/Gold + status for control rates ≥ 70%
- 743 organizations earned Silver status for completing evidence-based measurement activities
- 34 received Participant status as first-time data submitters

View the complete list of 2024 Target: BP Recognized Organizations.

In Pennsylvania, Quality Insights worked with five practices that received awards through the Target: BP Recognition Program. Congratulations to all of these practices!


**Pennsylvania Target: BP™ Gold+ Status Practice**
Gold + status recognizes practices that have 70% or more of their adult patients with high blood pressure in control and have demonstrated a commitment to measurement accuracy. Below is a practice working with Quality Insights in Pennsylvania that achieved Gold + status.

- Wayne Memorial Community Health Centers


**Pennsylvania Target: BP™ Gold Status Practices**
Gold status recognizes practices that have 70% or more of their adult patients with high blood pressure in control. Below is a practice working with Quality Insights in Pennsylvania that achieved Gold status.

- Banmaha, P.C.
- Lackawanna Medical Group, P.C.


**Pennsylvania Target: BP™ Silver Status Practices**
Silver status recognizes practices that submit data and complete four out of six evidence-based measurement activities. Below are practices working with Quality Insights in Pennsylvania that achieved Silver status.

- Neighborhood Health Centers of the Lehigh Valley
- The Wright Center for Community Health

## Quality Insights: Your Partner in CVD Care Improvement

At Quality Insights, we understand the challenges and complexities of managing hypertension and hypercholesterolemia within diverse healthcare settings. To support your internal efforts, we offer the expertise of our Practice Transformation Specialists. Our specialists are available to assist your health system, Federally Qualified Health Center, or independent practice in achieving your goals of improving HTN control and HCL management.

If your practice is interested in participating in the program, email Ashley Biscardi or call **1.800.642.8686, ext. 2137.** Quality Insights is here to be your partner in transforming patient care and accomplishing improved health outcomes.