Cardiovascular Health Practice Module

January 2025

The National Cardiovascular Health Program

Quality Insights

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

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Purpose of Module

This Cardiovascular (CV) Practice Module provides a comprehensive overview of evidence-based information and resources focused on preventing and managing hypertension (HTN) and stroke. It supports and enhances ongoing quality improvement efforts within health care 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 Delaware Division of Public Health's (DPH) 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 target audience is health care professionals, including physicians, physician assistants, nurse practitioners, nurses, pharmacists, social workers, and care team members, who are involved in the management of cardiovascular disease (CVD) risk factors and patient care.

Note: The guidelines referenced in this module are provided in summary format. Complete recommendations should be reviewed in the original publication(s) and utilized with physician/clinician judgment, considering a patient's unique needs and circumstances.
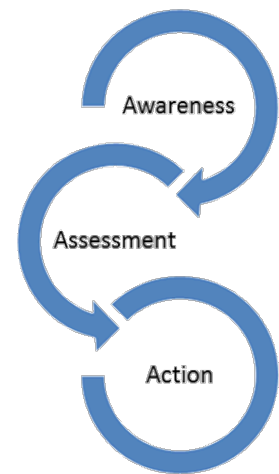
The Pressure is Off: Partner with Quality Insights

Quality Insights is committed to supporting your health care team in achieving optimal CV health, prevention, and management. In partnership with DPH, 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.

Figure 1. Evolution to the Quintuple Aim
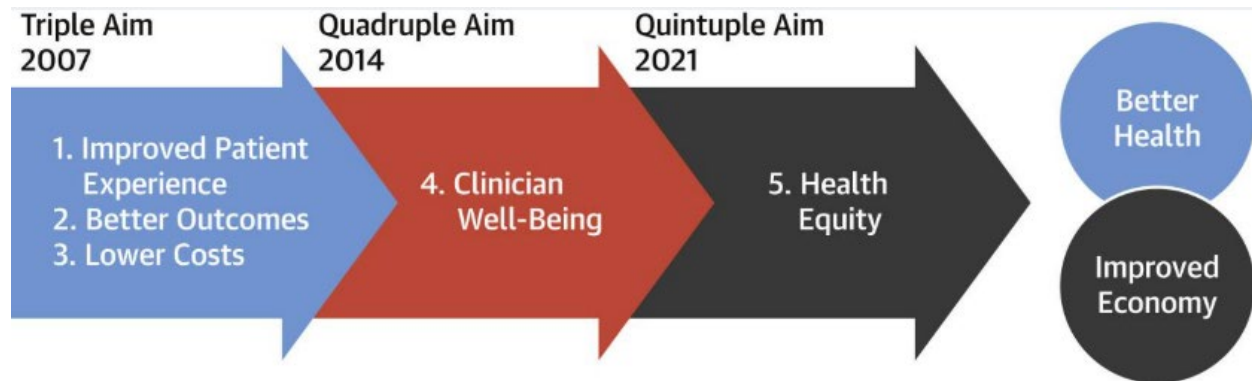
Source: National Library of Medicine, 2021.

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 explore current workflows, protocols, and processes, including using health information technology, team-based care, disease management, and strategies for clinical quality improvement based on ideals within the Quintuple Aim.

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 appendix of Quality Insights' Practice Education Modules and on the Quality Insights Practice Education Module 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.

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 blood pressure (BP) control the goal by reviewing the Cardiovascular Health Workflow Modification Guide. Email Ashley Biscardi or call **1-800-642-8686, Ext. 2137** for more details.

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Awareness: The Value of BP and Cholesterol Targets and Control

CV health continues to be a top public health priority, with heart disease and stroke maintaining their stature in the top five leading causes of death in both the United States (Kochanek et al., 2024) and Delaware (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. In 2021, 36.2% of adults in Delaware reported having been diagnosed with high BP, compared to the national average of 32.4% (America's Health Rankings, 2021). *The Global Burden of Cardiovascular Diseases and Risk: A Compass for Future Health* (Vaduganathan et al. 2022) asserts that "multi-level pharmacological and non-pharmacological interventions are needed to address the risks of high BP 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)/American Heart Association (AHA) Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular

Stroke Risk

- "In 2022, one in six deaths from CVD were due to stroke.
- Every 40 seconds, someone in the U.S. has a stroke. Every three 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.

Risk in Adults. It provides current 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 Centers for Disease Control and Prevention (CDC) defines social determinants of health (SDOH) as the "nonmedical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, worship, and age. These conditions include a wide set of forces and systems that shape daily life such as economic policies and systems, development agendas, social norms, social policies, and political systems."

The CDC stresses that "addressing differences in SDOH accelerates progress toward health equity, a state in which every person has the opportunity to attain their highest level of health. SDOH have been shown to have a greater influence on health than either genetic factors or access to healthcare services."

Screening for Social Needs

As health care 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, and demonstrate the value these services bring to patients, communities, and payers.

Several screening instruments are available to aid practices in identifying vital conditions. The following are a sample of options to consider:

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. 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:

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, Athena health®, 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:

PRAPARE Readiness Assessment Tool: Use this tool to help identify your organization's readiness to implement PRAPARE.

Implementation Strategy Work Plan: This 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

2

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.

3

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.

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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 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.
- Unite Delaware, a multidirectional referral system supported by the Unite Us platform, helps coordinate care networks for patients who need health and social service providers.

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 affecting their patients, allowing personalized care to address medical and social needs.
- Aggregate data across the patient population to develop an SDOH strategy.
- Identify population health trends and guide community partnerships.

Take 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.

Download these 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 SDOH Data Journey to Better Outcomes Infographic
- CMS: 2024 ICD-10-CM Official Guidelines for Coding and Reporting
- Executives for Health Innovation: 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 health care professionals. According to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, some health care 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.

Figure 2. Changes in Blood Pressure Classification

Normal	Systolic: less than 120 mm Hg
	Diastolic: less than 80 mm Hg
At risk (prehypertension)	Systolic: 120-139 mm Hg
	Diastolic: 80-89 mm Hg
High blood pressure	Systolic: 140 mm Hg
	Diastolic: 90 mm Hg or higher

Sources: The Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Arch Intern Med 1997; 157:2413–46.

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. JAMA 2003; 289:2560–71.

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Figure 3. Categories of Blood Pressure in Adults

Normal	Systolic: less than 120 mm Hg
	Diastolic: less than 80 mm Hg
At risk (prehypertension)	Systolic: 120-129 mm Hg
	Diastolic: less than 80 mm Hg
High blood pressure	Systolic: 130 mm Hg or higher
	Diastolic: 80 mm Hg or higher

Source: Whelton PK, Carey RM, Aronow, WS, et al. 2017, AHA/ASA Journals
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. J Am Coll Cardiol. 2018;71(19):e127–e248.

Risk-Enhancing Factors for Cardiovascular Health

In the 2023 Guideline of the Management of Blood Cholesterol, "risk-enhancing factors that should guide a clinician-patient risk discussion for cholesterol management" are outlined on page 12, including 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, and each goal is supported by strategies to achieve success" (CDC, 2024).

Figure 4: Goals and Strategies to Improve Hypertension Control
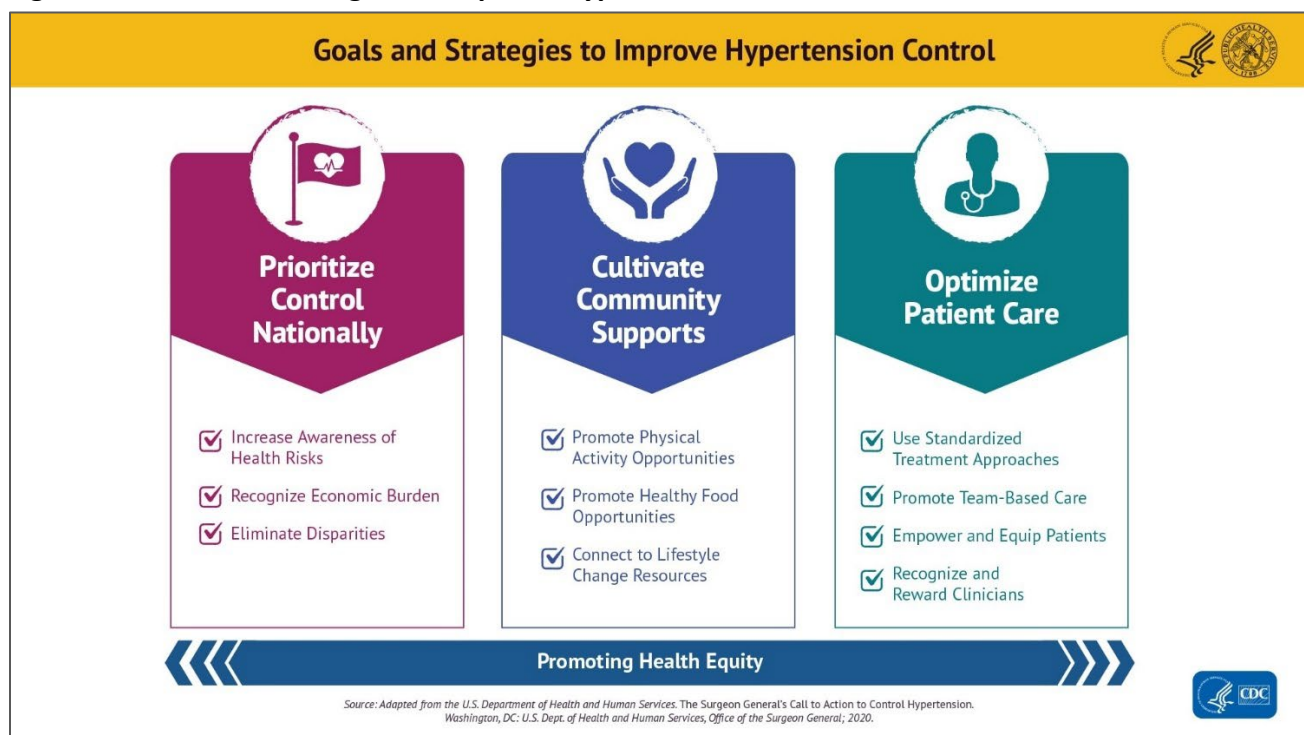
Source: Adapted from the U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Control Hypertension. Washington, DC: U.S. Dept. of Health and Human Services, Office of the Surgeon General;2020

Learn more about the *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 BP 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 (see Figure 5) is also available and highlights key messages abbreviated.

Figure 5: Top 10 Take-Home Messages to Reduce Risk of Atherosclerotic Cardiovascular Disease (ASCVD) through Cholesterol Management

Top Ten Take-Home Messages to Reduce Risk of ASCVD through Cholesterol Management	
1	Emphasize a heart-healthy lifestyle across the life course for all individuals.
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 $\geq$ 190 mg/dL), begin high-intensity statin therapy without calculating 10-year ASCVD risk.
5	In patients ages 40 to 75 years with diabetes mellitus and LDL-C $\geq$ 70 mg/dL, start moderate-intensity statin therapy without calculating 10-year ASCVD risk.
6	In adults ages 40 to 75 years evaluated for primary ASCVD prevention, have a provider-patient risk discussion before starting statin therapy.
7	In adults ages 40 to 75 years without diabetes mellitus and with LDL-C levels >= 70 mg/dL, at a 10-year ASCVD risk of $\geq$ 7.5%, start a moderate-intensity statin if a discussion of treatment options favors statin therapy.

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8	In adults ages 40 to 75 years 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 ages 40 to 75 years without diabetes mellitus and with LDL-C levels $\geq$ 70 mg/dL at a 10-year ASCVD risk of $\geq$ 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 will be able to 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 and 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 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 achieving 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 to increase the control of high BP in adults to 18.9%. 2017-2020 data reflects that only 16.1% of adults had their BP under control. The initiative additionally targets increasing cholesterol treatment in adults to 54.9%. Data from 2013 to 2016 reflects 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 health care providers and patients are listed in Figure 6.

Figure 6. Blood Pressure Control Initiatives

Blood Pressure Control Initiatives
Live to the Beat - Led by the CDC Foundation and the Million Hearts® initiative, Live to the Beat is a belief change campaign that promotes heart-healthy eating, physical activity, and working with a health care professional to improve the CV health of Black adults ages 35 to 54 years. 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 ages 55 and over by encouraging people to take small steps to become healthier, like eating nutritious foods, getting active, and lowering stress. This program is part of the "Start Small. Live Big." campaign.
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 that have pledged 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 health care professional organizations and heart health experts aims to empower Black women to enhance their self-care through improved heart health. Visit its patient-facing website for BP resources.
Get Down With Your Blood Pressure™ or **Éntrale a Bajar tu Presión™** - The American Medical Association (AMA) and the AHA lead this high blood pressure control campaign. It encourages daily BP monitoring and regular communication with the health care provider.
National Hypertension Control Roundtable (NHCR) - This CDC Foundation and National Association of Chronic Disease Directors-led coalition is dedicated to eliminating disparities in BP control by supporting people where they live, learn, work, play, and pray. Quality Insights is a participating member of the NHCR.

Source: This list was compiled by Quality Insights.

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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.

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.
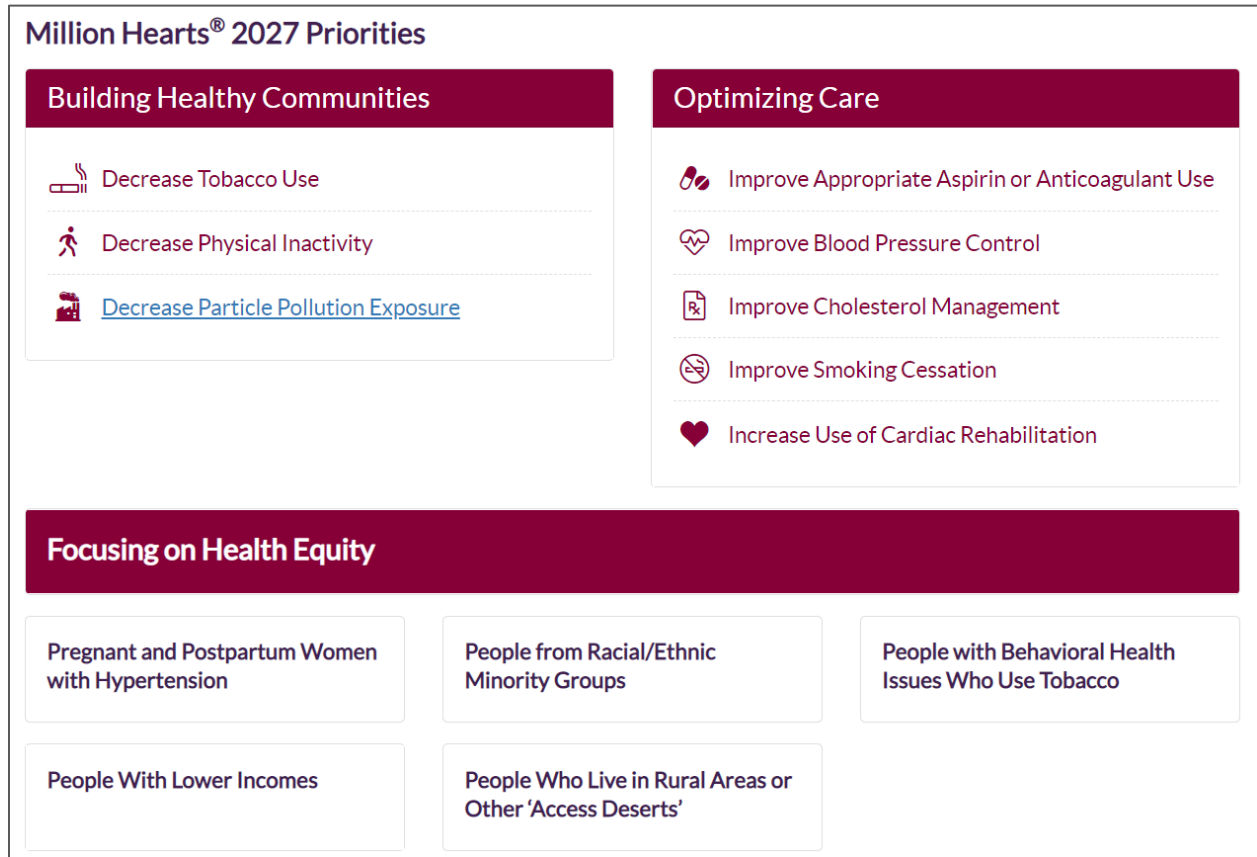
Source: Million Hearts®, 2024.

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 ages 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 "*6 takeaways doctors should know about the new SMBP policy statement*" article from the AMA to learn more.
- 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 Hypertension Control

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Champions to achieve high levels of BP control with patients. SMBP-focused content is included as an important aspect of HTN control.

Figure 7: Million Hearts® 2027 Priorities

Million Hearts® 2027 Priorities

Building Healthy Communities
- Decrease Tobacco Use
- Decrease Physical Inactivity
- Decrease Particle Pollution Exposure

Optimizing Care
- Improve Appropriate Aspirin or Anticoagulant Use
- Improve Blood Pressure Control
- Improve Cholesterol Management
- Improve Smoking Cessation
- Increase Use of Cardiac Rehabilitation

Focusing on Health Equity
- Pregnant and Postpartum Women with Hypertension
- People from Racial/Ethnic Minority Groups
- People with Behavioral Health Issues Who Use Tobacco
- People With Lower Incomes
- People Who Live in Rural Areas or Other 'Access Deserts'

Source: Million Hearts®, 2023.

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.

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Assessment: Knowing the Numbers, Using the Tools

Monitoring BP Levels in Adults

Health care professionals utilizing the 2017 ACC/AHA Guideline must understand that BP is "categorized into four levels on the basis of average BP measure in a health care setting (office pressures): normal, elevated, and stage 1 or 2 hypertension." The table below reflects these categories and can be utilized as a tool to assist health care professionals in accurately assessing and categorizing BP levels in adults.

Figure 8: Categories of BP 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.

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

The 2017 ACC/AHA Guideline (see Figure 9) "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."

Figure 9: Corresponding Values of Systolic BP/Diastolic BP for Clinic, Home (HBPM), Daytime, Nighttime, and 24-Hour Ambulatory (ABPM) 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

Note: HBPM - home blood pressure monitoring; SBP - systolic blood pressure; DBP - diastolic blood pressure; ABPM - ambulatory blood pressure monitoring

Source "[2017 Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Guidelines Made Simple, A Selection of Tables and Figures]()," *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 health care organization identify opportunities for more accurate BP measurements in the clinical setting.

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- [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 your health care team members.
- [CME Course: Measuring Blood Pressure Accurately](#): This CME course is designed to enhance the individual understanding and skills in measuring BP for health care 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. Below are helpful educational resources to guide your patients' participation in SMBP.

Figure 10. SMBP Patient Education Resources

Organization	SMBP Patient Resource	Summary
American Medical Association	How to Measure Blood Pressure Accurately	This brief video 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	This is a printable BP log that includes brief instructions for patient use is also included.
	Hypertension Management Apps	This resource lists apps available to help patients track their BP readings.
Target: BP™	What is SMBP?	This patient handout explains 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 the age of 20 who do not have CVD should have a risk assessment every four to six 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 9). 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 to manage their condition effectively.

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

Figure 11. Cholesterol Level Ratings

Rating	Total Cholesterol	HDL Cholesterol	LDL Cholesterol	Triglycerides
Good	Less than 200	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 is considered very high	200 or higher; 500 is 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, 2024.

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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 **"6% 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's 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 HCL. However, abnormal lipid levels are relatively common in children and adolescents, affecting approximately one in five adolescents.

The U.S. Preventive Services Task Force (USPSTF) 2023 guideline prioritizes the importance of identifying children, adolescents, and young adults with signs and symptoms of familial HCL, estimating lifetime risk, and promoting lifestyle risk reduction. In children and adolescents without CV 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.

In July 2023, the 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.

Figure 12 on page 23 includes the recommended cholesterol levels for children according to the guidelines. All values are in mg/dL.

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Figure 12. Recommended Cholesterol Levels for Children

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

Source: National Center for Chronic Disease Prevention and Health Promotion, 2024.

HCL Assessment Resources for Providers:

- ACC Cholesterol Guideline Tool: Overview of Primary and 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.

ASCVD Risk Assessment

Evaluating 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 and a validated risk prediction tool, is essential in guiding this process. The ASCVD Risk Estimator Plus, intended and validated for use in patients ages 40 to 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

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app or by accessing the online version. A patient-facing risk calculator is also available from AHA.

Coronary Artery Calcium (CAC) Score
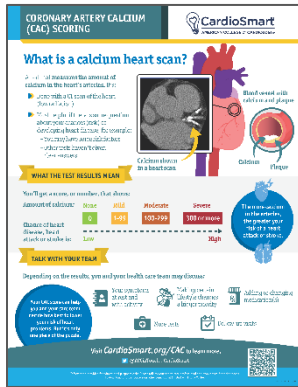
Calculating the coronary artery calcium (CAC) score is recommended among patients 40 years and older with an uncertain risk status to aid in prevention and/or treatment decision-making. This non-invasive computerized tomography (CT) scan of the heart calculates the risk of developing coronary artery disease (CAD) by measuring the amount of calcified plaque in the coronary arteries.

See page 15 of the 2018 Guidelines Made Simple for examples of candidates who might benefit from knowing they have a zero CAC score. You can also download and print the CAC Scoring infographic from the American College of Cardiology to share with your patients.

## Improving Stroke Identification and Outcomes

Target: Stroke[SM], an initiative resulting from collaboration between the AHA and the American Stroke Association (ASA), 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[SM] initiative exists in conjunction with Get with the Guidelines- Stroke®, an in-hospital program to improve the care of stroke patients aimed to promote 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.
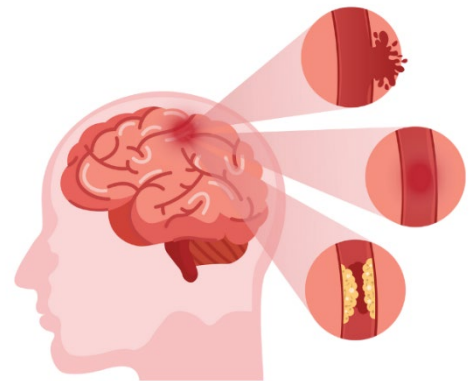
Patient education is crucial for improving stroke outcomes by recognizing early signs of a stroke. By recognizing the symptoms outlined in Figure 12, such as numbness, confusion, and dizziness, individuals can take swift action to ensure that medical intervention is administered as quickly as possible.

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Figure 13: Signs of Stroke in Men and Women
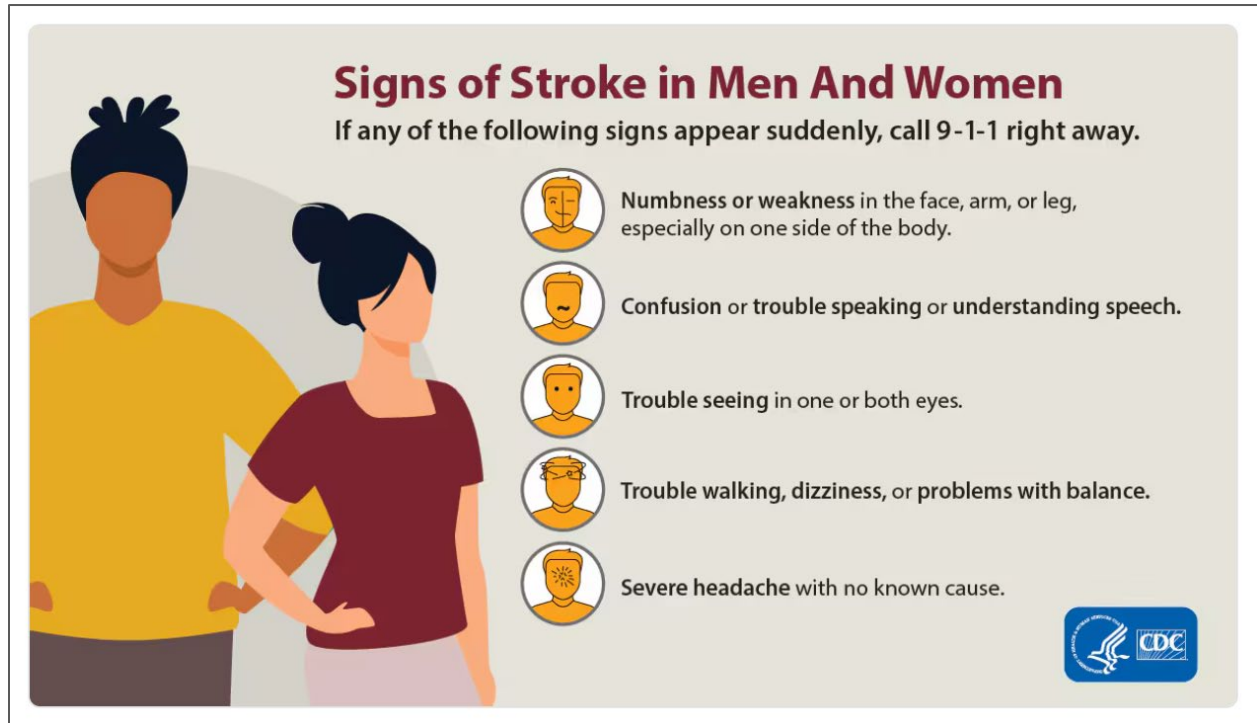
Source: CDC, 2024.

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 of patients and various health professionals, including primary care providers, pharmacists, nurses, dietitians, social workers, or other health workers, rather than a single doctor.

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.

Team members work together to help patients manage their medications, increase healthy behaviors, and follow their BP control plan.

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. Adding health equity as a fifth goal in health care is believed to 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 health care system.

1: Patient Experience
2: Population Health
3: Reducing Costs
4: Care Team Well-Being
5: Health Equity

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

In 2021, 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 timeline of federal and national actions started in June 2008 with a Call to Action for using and reimbursing home BP monitoring.

In 2024, we have yet to establish national standards and expansive insurance coverage for BP 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. View Quality Insights resource for Delaware Insurance Coverage Options for Home Blood Pressure Monitors and the Stellar RX Fax Referral Form for an Omron blood pressure monitor for AmeriHealth Caritas Delaware patients.

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Implementing team-based care is imperative to establishing an optimal SMBP program in practices with steps for successful implementation and monitoring. Figure 13 displays SMBP tasks by role.

Figure 14. SMBP Essential and Optional Tasks by Role

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 2. Prescribe medication(s) 3. Provide SMBP measurement protocol 4. Interpret patient-generated SMBP readings 5. Provide medication titration advice 6. Provide lifestyle modification recommendations	1. Provide guidance on home blood pressure (BP) monitor selection 2. If needed, provide home BP monitor (free or loaned) 3. Provide training on using a home BP monitor 4. Validate home BP monitor against a more robust machine 5. Provide training on capturing and relaying home BP values to care team (e.g., via device memory, patient portal, app, log) 6. Reinforce clinician-directed SMBP measurement protocol 7. Provide outreach support to patients using SMBP 8. Share medication adherence strategies 9. Provide lifestyle modification education	1. Take SMBP measurements 2. Take medications as prescribed 3. Make recommended lifestyle modifications 4. Convey SMBP measurements to care team 5. Convey side effects to care team

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: Self-measured Blood Pressure Monitoring Implementation Guide for Health Care Delivery Organizations, NACHC, 2018.

The National Community Health Centers SMBP Implementation Guide provides additional resources to support the implementation of an SMBP program.

Source: CMS, 2024

Multiple studies assert the need for standardized treatment protocols and a need to develop targeted strategies for achieving BP control by addressing the differing barriers of each racial/ethnic group. The CMS' Disparities Impact Statement is a tool to assist health care 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.

Review the resources in Figure 14 to strengthen your care team and provide optimal patient care for HTN/HCL management.

Figure 14: Resources for Promoting SMBP

Organization	Resources	Description
CDC	Best Practices for Heart Disease and Stroke	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: Delaware-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 health care 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 resource is available to assist you in improving medication adherence in your practice setting:

- [Medication Adherence Estimator®](#): This patient-centered resource is designed to help you gauge a patient's likelihood of adhering to newly prescribed oral medications for certain chronic, asymptomatic conditions.

Include Pharmacist on Care Team

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, review 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 health care teams can replicate in their own programs.

Shared Decision-Making and Statin Choice

The Mayo Clinic has developed an evidence-based, shared decision-making tool, Statin Choice Decision Aid, to assist health care providers in determining the 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.
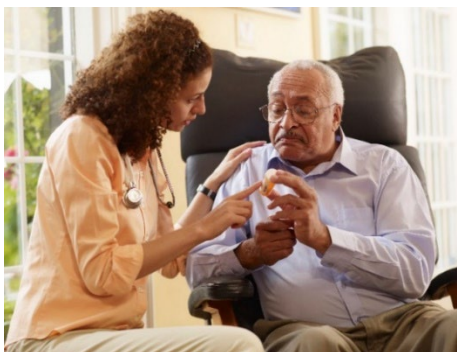
It is recommended that providers assess medication adherence and efficacy every four to 12 weeks using a fasting lipid test. Based on individualized patient results, retests should then occur every three to 12 months. This approach emphasizes the importance of shared decision-making and the significance 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 CVD.

Figure 15. DASH Eating Plan

Source: National Heart, Blood, and Lung Institute, 2021.

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 2023 ranked the Dietary Approaches to Stop Hypertension (DASH) diet second in best diets overall and tied for 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 three 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.

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- o Visit the National Heart, Lung, and Blood Institute (NHLBI) website for additional heart-healthy cooking resources for people of all ages and ethnicities.
  - o From the NHLBI: Your Guide to Lowering Your Blood Pressure with DASH
- Sodium reduction patient resources:
  - o Why Should I Limit Sodium? (AHA)
  - o Sodium in Your Diet: Use the Nutrition Facts Label and Reduce Your Intake (FDA) – English
  - o Sodium in Your Diet: Use the Nutrition Facts Label and Reduce Your Intake (FDA) – Spanish

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 .

- 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.
- Smoking Cessation Program: Listing of national quitlines in various languages, online resources, and medicines to help patients quit smoking.
  - o Refer patients to the Delaware Quitline (1-866-709-1858) program.
  - o Healthy Delaware offers downloadable and orderable smoking cessation toolkits for providers.
- "Answers by Heart" Blood Pressure Fact Sheets and Multilingual Resources, including:
  - o African Americans and High Blood Pressure.
  - o How Can I Reduce High Blood Pressure? (available in Spanish).
  - o Infographic: Consequences of High Blood Pressure (available in Spanish and Traditional Chinese).
  - o Lifestyle Chart: What Can I Do to Improve My Blood Pressure? (available in Spanish and Traditional Chinese).
- Did you know that people can check out a blood pressure device from your local Delaware library? Click on the Health & Wellness tab on the Delaware Libraries website for more details.

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

- Healthy Heart Ambassador Blood Pressure Self-Monitoring (HHA-BPSM) Program.
- Taking Off Pounds Sensibly (TOPS).
- Curves: In-club and at-home memberships are now available.
- WW® (formerly Weight Watchers).

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- [Supplemental Nutrition and Assistance Program Education (SNAP-Ed)](#)
- [Expanded Food and Nutrition Education Program (EFNEP)](#)

Take Control with Lifestyle Change Programs in DE
Check out the Quality Insights resource that highlights the benefits of [CDC-recognized lifestyle change programs](#) currently available in Delaware.

Prevention and Management of CVD Implementation: Resource Library

The evidence-based resources listed below provide guidance for health care sites to assist in implementing and managing SMBP programs. Quality Insights invites you to visit each organization's website for a complete listing of their tools and resources.

Figure 16. SMBP Implementation and Management Resources for Health Care Organizations

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 remote patient monitoring.
	[7-Step SMBP Quick Guide](#)	Links to training videos, SMBP/remote patient monitoring (RPM) CPT® coding information, infographics, and SMBP logs are included in this guide.
[American Medical Association](#)	[SMBP Program CPT Coding](#)	Provides an overview of the implementation process and reimbursement for health care 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.

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	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	SMBP Instructions for Practices	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

For the prevention and management of chronic disease conditions, the CPSTF recommends telehealth interventions 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.
- **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-provider 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.

Figure 17. Optimal Self-Measured Blood Pressure Monitoring
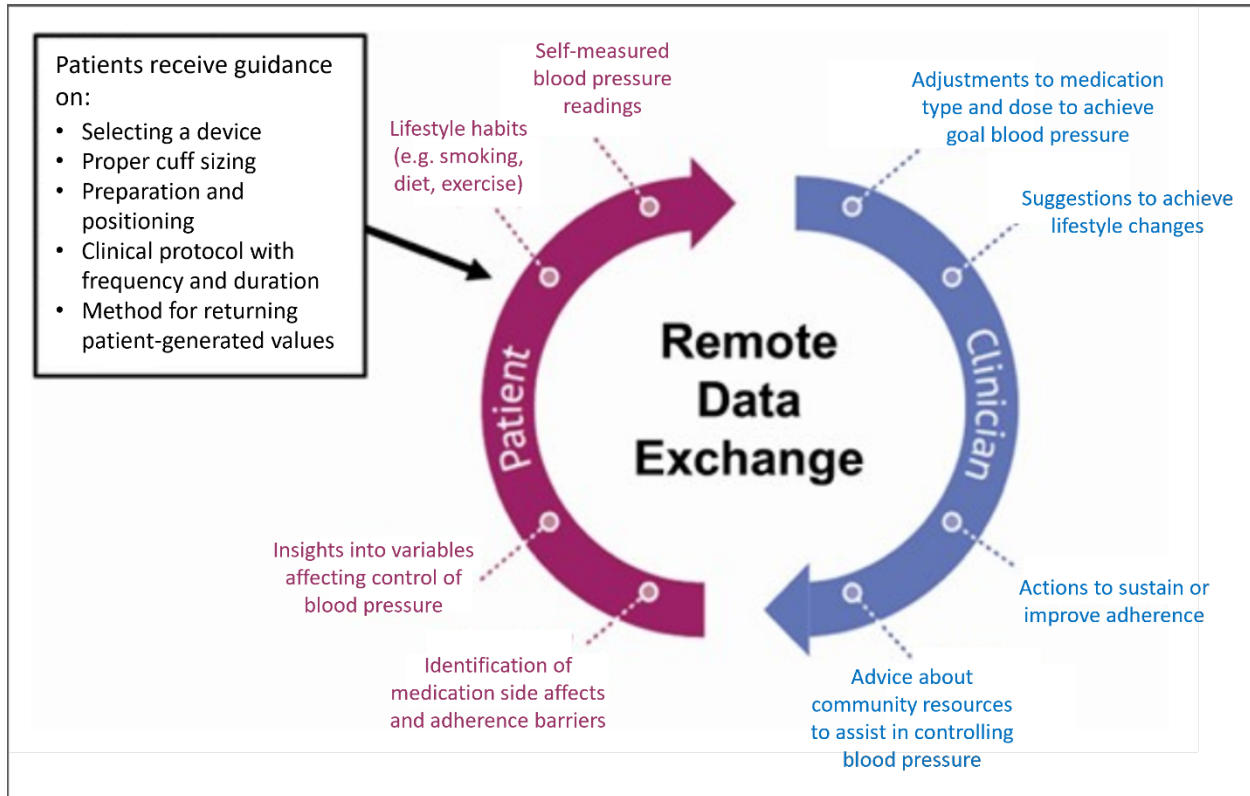
Source: "[How Do We Jump-Start Self-Measured Blood Pressure Monitoring in the United States? Addressing Barriers Beyond the Published Literature]()," by Wall et al., 2022.

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

- [AMA Remote Patient Monitoring Implementation Playbook](): This guide walks you through the process of planning and implementing RPM at your practice.
- [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 and 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 EHRs. Below are five 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 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. **Discover Multi-Directional Referrals**
   Consider the adoption of Unite Delaware, supported by the Unite Us platform, to help coordinate care networks for patients needing health and social service providers.

4. **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 data, 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.

5. **Employ Patient Portal and Text Messaging Campaigns**
   Increase patient engagement by utilizing your EHR's portal messaging and, if possible, text messaging. Promote health care access, engagement, and referrals to Delaware ASSIST, the online application and screening for health and social service programs in Delaware. Utilize these resources for the uninsured and underinsured in Kent and Sussex counties and New Castle County.

Reminder: Start Tracking Your Results and Be Recognized

Participating in initiatives like the American Heart Association's Target: BP™ can bring acknowledgment to health care 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 this AHA 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.

Target: BP™ Recognition Program

The Target: BP™ Recognition Program celebrates provider practices and health care systems that treat patients with hypertension for achieving BP 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 health care organizations that served patients with HTN and participated in the program in for the 2023 calendar year (TargetBP, 2024).

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2024 awardees include:

- 1,035 organizations achieving Gold/Gold+ status for BP control rates ≥ 70 %.
- 743 organizations achieving Silver status for completing evidence-based measurement activities.
- 34 organizations receiving first-time Participant status for their commitment to improving BP control.

If your practice is interested in being recognized by the Target: BP™ program, review the Target: BP™ Quick Start Guide.
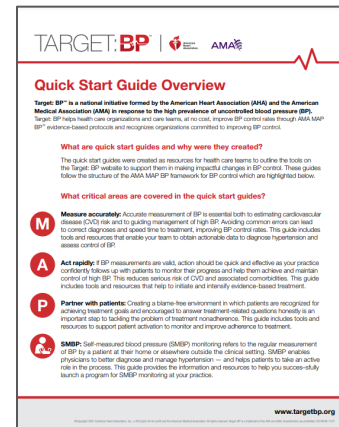
Quality Insights: We Can Help

A Quality Insights' Practice Transformation Specialist is available to assist your health system, FQHC, or independent practice in achieving its goal of improving HTN control and HCL management. If your practice is interested in participating in The National Cardiovascular Health Program, email Ashley Biscardi or call **1-800-642-8686, Ext. 2137** for more information.