Advancing Blood Pressure Control from Multiple Angles

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Million Hearts®

Centers for Disease Control and Prevention

in conjunction with Hilary K. Wall



Wisconsin Heart Health Learning Series
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Disclaimer

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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 **S**moking 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'

Finding People With Undiagnosed Hypertension

"Hiding in Plain Sight"
HIPS



Hypertension Prevalence

≥140/90 mmHg

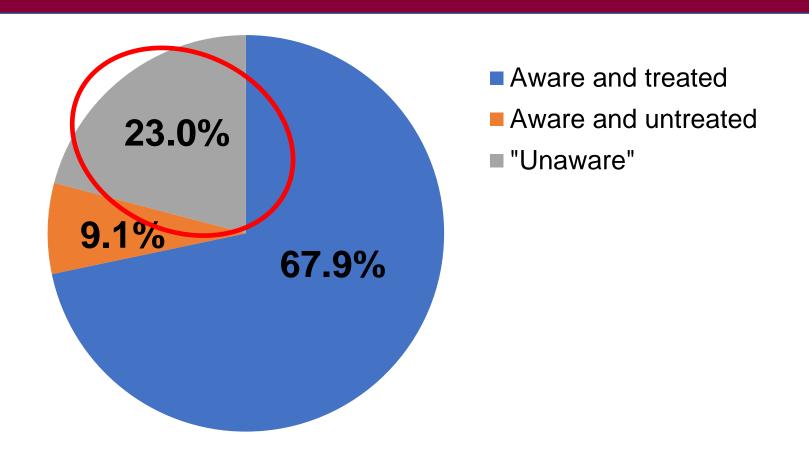
- 31% prevalence among US adults
 - 40% among adults 45-64
 - 67% among adults 65+
 - 39% among non-Hispanic blacks
- ~78M adults have HTN

≥130/80 mmHg

- 44% prevalence among US adults
 - 56% among adults 45-64
 - 78% among adults 65+
 - 53% among non-Hispanic blacks
- ~108M adults have HTN

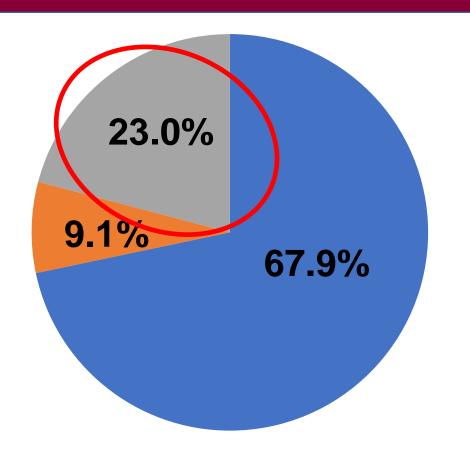


Hypertension Awareness (≥ 140/90)





Hypertension Awareness (≥ 140/90)



- Aware and treated
- Aware and untreated
- "Unaware"
 - 80.9% have health insurance
 - 82.7% report having a usual source of care
 - 63.3% have received care two or more times in the past year



4-Step Process

Compare to local, state, or national prevalence data

Implement a plan for addressing the identified population

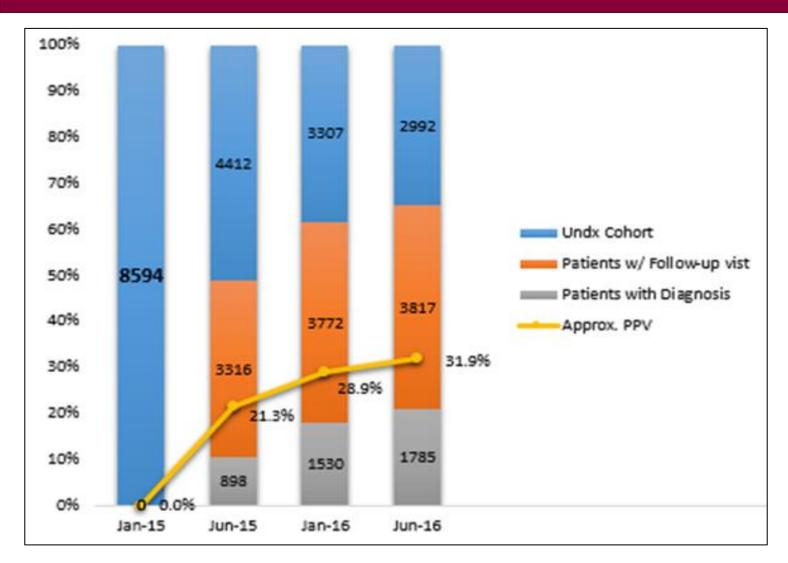
FINDING
PATIENTS WITH
UNDIAGNOSED
HTN

Establish clinical criteria for potential undiagnosed HTN

Search EHR
data for
patients that
meet clinical
criteria

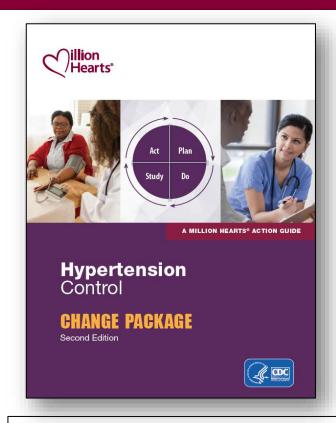
Wall HK, Hannan JA, Wright JS. Patients with Undiagnosed Hypertension: Hiding in Plain Sight. JAMA. 2014;312(19):1973-74.

National Association of Community Health Centers HIPS Project



- QI project involving 100,000 patients from 10 health center organizations in AR, CA, KY
- 65.2% had a follow up visit
- 31.9% were dx w/HTN

Hypertension Control Change Package (HCCP) 2nd Edition, 2020 HIPS Tools and Resources

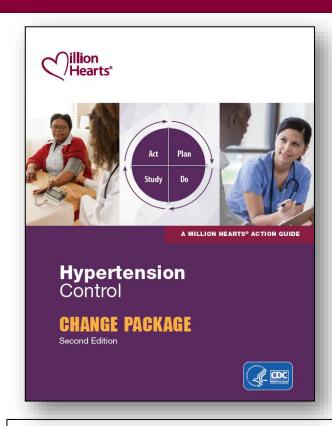


https://millionhearts.hhs.gov/files/HTN_C hange_Package.pdf#page=18

https://www.nachc.org/wpcontent/uploads/2022/11/NACHC-Million-Hearts-HIPS-Consolidated-Change-Package-12.07.15.pdf

Table 3. Population Health Management		
Change Concept	Change Idea	Tools and Resources
	Compare practice HTN prevalence to national or local estimates to understand if you might be missing patients with undiagnosed HTN	 Million Hearts® — <u>Hypertension Prevalence Estimator Tool</u> Vermont Department of Health and the New England QIN-QIO — From 70 to 80 Percent: The Hypertension Management Toolkit: <u>Task 2: How Does Your Practice Compare to Local and National Benchmarks?</u> AMGA — <u>Hypertension Prevalence – AMGA Results Using Dx Code, Problem List, and Elevated Blood Pressure Readings</u>¹⁰
Identify Patients with Potentially Undiagnosed HTN Conditional resources, please see the NAC Condition Hearts*	Establish clinical criteria to define potentially undiagnosed HTN	 Table 1. Number of At-Risk Patients Identified by Each Hypertension Screening Algorithm. A Technology-Based Quality Innovation to Identify Undiagnosed Hypertension among Active Primary Care Patients. Rakotz MK, et al., 2014.¹¹ NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: Appendix L: Undiagnosed Hypertension Algorithms and Clinical Criteria Decision Points, HIPS Project Patients with Undiagnosed Hypertension: Hiding in Plain Sight. Wall HK, et al., 2014.¹²
Hiding in Plain Sight Consolidated Chang Package; NYC DOHM and HealthyHearts I/ C ABCS Toolkit for the Practic Facility of: Task B6: Respond quickly to control elevated BP by targeting undiagnosed hypertension (HTN)	Search EHR data for patients who meet the established clinical criteria	 NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: Appendix M: Potentially Undiagnosed Hypertension Algorithm used to Generate Registries and Reports - i2i Tracks, Golden Valley Health Centers and Tulare Community Health Clinic (now Altura Centers for Health) Identifying Patients with Hypertension: A Case for Auditing Electronic Health Record Data. Baus A, et al., 2012.¹³ Plymouth Family Physicians — Patient-Level Report
	Implement a plan to confirm HTN status and treat those with HTN	 NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: <u>Appendix I: Million Hearts® HIPS Recall Report</u>, Golden Valley Health Centers NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: <u>Appendix K: HIPS Recall List – i2i Tracks</u>, La Maestra Community Health Centers NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: <u>Appendix N: Patient Status and Opportunities Alert - eClinicalWorks</u>, <u>Neighborhood Healthcare</u>

Hypertension Control Change Package (HCCP) 2nd Edition, 2020 HIPS Tools and Resources



https://millionhearts.hhs.gov/files/HTN_C hange_Package.pdf#page=18

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Self-Measured Blood Pressure Monitoring (SMBP)



Self-Measured Blood Pressure Monitoring (SMBP)

- Self-Measured Blood Pressure monitoring (SMBP) the measurement of BP by an individual outside of a clinic setting including at home – with a validated automatic upper arm device
- AKA "home blood pressure monitoring"
- SMBP is NOT BP taken at a pharmacy kiosk, or by a smart phone device, wearable sensor, cuffless BP monitor, or finger cuff
- Evidence-based strategy for lowering BP when combined with clinical support



Select Federal Initiatives to Address BP Control

Date	Federal Initiative	
February 2019	HRSA Challenge spotlighted experts in remote health monitoring, including SMBP during and following pregnancy	
October 2020	Surgeon General's Call to Action to Control Hypertension includes empowering and equipping patients to use SMBP as a recommend strategy	
October 2021	HHS OWH launched the annual National Women's BP Awareness Week and the SMBP Partnership Program to accelerate update among women	
January 2022	Million Hearts® embeds a focus on SMBP including use in pregnant and postpartum women with hypertension for 2022-2026	
June 2022	White House Blueprint For Addressing The Maternal Health Crisis calls for SMBP for pregnant and postpartum women with or at risk for HDP. Major commitments from the Indian Health Service, Office of Personnel Management and the Veterans' Administration	

HRSA = Health Resources and Services Administration; HHS = Department of Health and Human Services; OWH = Office of Women's Health

Optimal SMBP

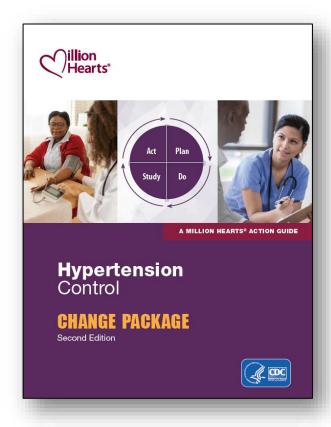
Clinician guidance on:

- Selecting a device
- Proper cuff sizing
- Preparation and positioning
- Clinical protocol with frequency and duration
- Method for returning patient-generated values

Adjustments to Self-measured medication type and blood pressure dose to achieve goal readings blood pressure Lifestyle habits Suggestions (e.g., smoking, to achieve diet, exercise) lifestyle changes Remote Patient Data **Exchange** Insights into variables Actions to sustain or affecting control of improve adherence blood pressure Identification of Advice about medication side effects and adherence barriers community resources to assist in controlling blood pressure

Adapted from:

- U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Control Hypertension. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2020
- Centers for Disease Control and Prevention. Self-Measured Blood Pressure Monitoring: Actions Steps for Clinicians.



Assign care team roles for an SMBP monitoring program and adapt the workflow accordingly

- NACHC Self-Measured Blood Pressure Monitoring Implementation Guide for Health Care Delivery Organizations: <u>Diagram 2: SMBP Model Design</u> <u>Checklist and Key Questions</u>
- Target: BP <u>CME Course: Using SMBP to Diagnose and Manage HBP</u>
- NYC DOHMH Patient Self-Monitoring of Blood Pressure: A Provider's Guide
- NACHC <u>Self-Measurement: How patients and care teams are bringing</u> blood pressure to control [video]
- Million Hearts® <u>Self-Measured Blood Pressure Monitoring</u>: <u>Action Steps</u>

Establish a Self-Measured BP (SMBP) Monit Program

וא		Table 2. Equipping Care Teams (continued)			
	Change Concept	Change Idea	Tools and Resources		
		Develop a home BP monitor loaner program	Target: BP — <u>SMBP Loaner Device Agreement</u>		
			 Open Door Family Medical Centers — <u>Blood Pressure Monitor Loan</u> <u>Agreement</u> (English and Spanish) 		
			 Target: BP — <u>Inventory Management</u> 		
			 Target: BP — <u>SMBP Patient Training Checklist – Loaner Device</u> 		
			 NACHC — Self-Measured Blood Pressure Monitoring Implementation Guide for Health Care Delivery Organizations: <u>Appendix Y: SMBP Loaner Program Policy & Procedure – Cleaning and Care of Home BP Monitors</u>, Whitney M. Young, Jr. Health Center 		
			 AMA — <u>Cleaning and disinfection procedure</u> 		
E	Establish a Self-		 Kaiser Permanente — PHASE SMBP Community of Practice: SMBP Loaner Pilot Model Design (pp. 15–22) 		

https://millionhearts.hhs.go v/files/HTN_Change_Pack age.pdf#page=16

Measured BP (SMBP) Monitoring			Table 4. Individual Patient Supports (continued)		
Program	Train	Change Concept	Change Idea	Tools and Resources	
	BP m prop and p	Support Patients in HTN Self- Management During Their Routine Daily Activities (i.e., outside of the clinical encounter)	Provide patient supports for SMBP monitoring	 Target: BP — SMBP Infographic: How to measure your blood pressure at home Target: BP — 7 Day Recording Sheet SMBP Washington State Department of Health — How to Check Your Blood Pressure – English Spanish; Chinese, Russian, and Vietnamese also available NYC DOHMH — Blood Pressure Tracking Card & Action Plan New West Physicians — Home BP EMR Entry Target: BP — SMBP Using a Wrist Cuff to Measure Blood Pressure (Not recommended for most patients) 	

SMBP Resources

- NACHC SMBP Implementation Toolkit https://www.nachc.org/wp-content/uploads/2020/12/SMBP-Toolkit_FINAL.pdf
- Million Hearts Hypertension Control Change Package, Establish an SMBP Program – https://millionhearts.hhs.gov/files/HTN_Change_Package.pdf#page=16
- NACHC Community Health Center Requirements for Remote Physiologic Monitoring (RPM) & SMBP — https://www.nachc.org/wp-content/uploads/2021/09/Payment-Reimb.-Tips_RPM-SMBP_September-2021.pdf
- AMA SMBP CPT Coding https://www.ama-assn.org/system/files/2020-06/smbp-cpt-coding.pdf



SMBP Resources (cont'd)

- US Blood Pressure Validated Device Listing https://www.validatebp.org/
- NACHC Choosing A Home BP Monitor For Your Practice At-A-Glance Comparison — https://www.nachc.org/wp-content/uploads/2021/05/Choosing-a-Home-BP-Monitor_At-a-Glance-Comparison.pdf
- AMA SMBP Coverage Insights: Medicaid https://www.ama-assn.org/system/files/smbp-coverage-medicaid-april-2022.pdf
- PHII SMBP: Key Findings from a National Health Information Technology Landscape Analysis https://phii.org/wp-content/uploads/2021/09/PHII-Report-on-SMBP_FINAL.pdf



Medication Adherence



Medication Adherence Challenges

Challenge	Potential Solution
• Complexity	Fixed-dose, single pill combinationsOnce-per-day dosing
Affordability, lack of coverage	Reduced/eliminated out-of-pocket costs
Transportation	Longer-duration prescriptionsMedication synchronization
 Understanding use and importance of medications Forgetfulness 	 Self-measured blood pressure monitoring Beneficiary education Beneficiary support – pill bottles, blister packs
Cultural beliefs, (concerns for) side effects, cognitive limitations	Beneficiary and family education

Fixed-Dose/Single Pill Combination Medications

- 2017 AHA/ACC blood pressure guidelines recommend initial combination therapy for most
 - Yet ~40% of people on medication with hypertension are on monotherapy
- Fixed-dose combinations (FDCs) the combination of ≥ 2 medications in one pill
- FDCs were associated with a 14.9% absolute increase in mean adherence; 13.1% increase in the average medicine possession ratio

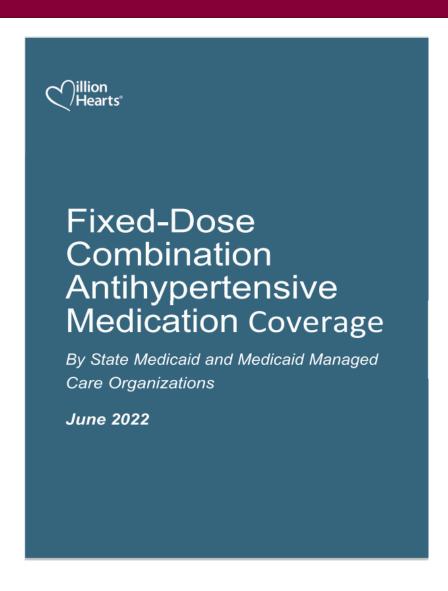
Mercy Care

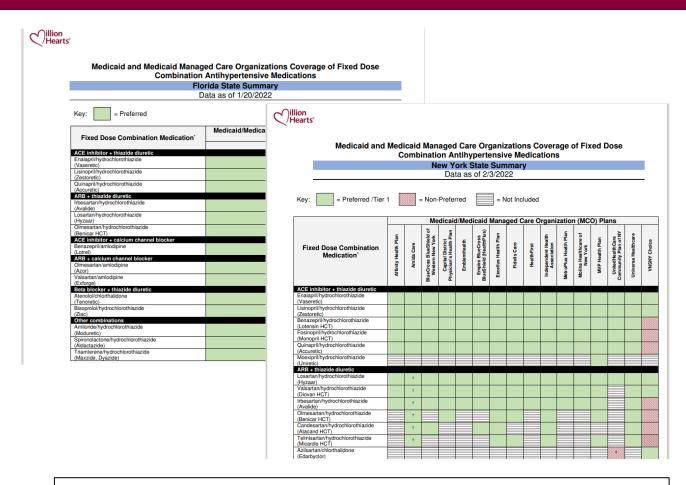
- Health center in Georgia
- Reviewed MCO coverage of all FDC antihypertensive medications in Georgia and updated formulary
- Noted the following changes in less than a year
 - Increase in guideline recommended therapy from 71% to over 84%
 - 5.8% increase in blood pressure control among African American persons





Fixed-Dose Combination Antihypertensive Medications Coverage by State Medicaid and Medicaid Managed Care Organizations, June 2022





Access the FDC State Summaries at:

https://millionhearts.hhs.gov/files/FDC-Analysis-50States-DC-508.pdf

Combined Blood Pressure Control Strategies

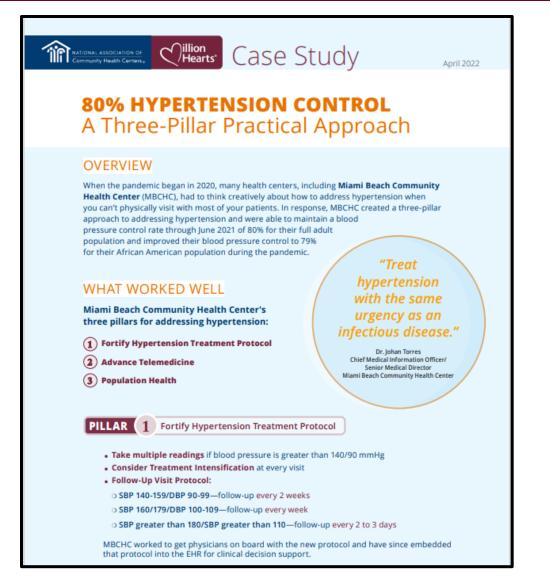


National Association of Community Health Centers Preventing Heart Attacks and Strokes Project

- Involved 8 Health Center Controlled Networks, 32 health centers, American Medical Association
- Over 2,563 Black persons with hypertension were brought under control (as of Sept 2022)
- Strategies include optimizing SMBP and medication adherence



80% Hypertension Control A Three-Pillar Practical Approach Case Study



- Miami Beach Community
 Health Center achieved 79%
 blood pressure control for
 their African American
 population during the
 pandemic
- Strategies include telemedicine, protocols, and population health

https://www.nachc.org/wpcontent/uploads/2022/04/Three-pillars-Case-Study-1.pdf

2023 Million Hearts® Hypertension Control Challenge

- Apply to be a 2023
 Hypertension Control
 Champion: Feb 27 Apr
 14, 2023
- ≥ 80% blood pressure control
- Apply at: millionhearts.hhs.gov



Wisconsin Hypertension Control Champions

- Ellsworth Medical Clinic, Ellsworth (2012)
- River Falls Medical Clinic, River Falls (2013)
- ThedaCare Regional Medical Center—Appleton (2013)
- Plymouth Family Physicians, SC, Plymouth (2017)
- Marshfield Clinic Health System, Marshfield* (2019)



Questions?

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