Blood Pressure Control in the U.S. – It Takes a Village

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Senior Scientist/Million Hearts Science Lead
Centers for Disease Control and Prevention

Getting to the Heart via Oral Health: A Medical and Dental Collaboration Summit
June 10, 2022
Overview

• Burden of CVD and hypertension in U.S.
• Million Hearts initiative
• Strategies to address hypertension
• Finding patients with potentially undiagnosed hypertension
Heart Disease and Stroke Burden

- More than **1.6 million** people in the U.S. suffer from heart attacks and strokes per year
- More than **870,000** deaths per year from cardiovascular disease (CVD)
- Annual CVD costs in the U.S. averaged **$378.0 billion** in 2017-2018
- Uncontrolled blood pressure is the primary contributor to the morbidity and mortality rate disparities in CVD between Black and White people.

Cardiovascular Disease Mortality
1999-2018

Figure 2. Trends in age-adjusted mortality rates per 100,000 population attributable to total cardiovascular disease and to leading subtypes of cardiovascular disease as underlying causes of death in the United States with the average annual percentage change before and after the inflection point* between 1999 to 2011 and 2011 to 2018. Declines in age-adjusted mortality rates per 100,000 population attributable to total cardiovascular disease and to leading subtypes of cardiovascular disease as underlying causes of death in the United States with average annual percentage change before and after the inflection point* between 1999 to 2011 and 2011 to 2018. CHD indicates coronary heart disease; CVD, cardiovascular disease; and HD, heart disease.

Alarming Mortality Trends

County-level total percent change in heart disease death rates, Michigan, ages 35-64, 2010-2017

Increasing death rates in 72.3% of counties in Michigan

Percent change
- Decrease of 10.0 or greater (4.8%)
- Decrease of 2.0 to 10.1 (18.1%)
- Decrease of 0.0 to 2.1 (4.8%)
- Increase of 0.1 to 2.0 (3.6%)
- Increase of 2.1 to 10.0 (26.5%)
- Increase of 10.1 or greater (42.2%)


Million Hearts®
Using ≥130/80 mmHg:

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

Of the 87M recommended to be on medications and LMs:

- ~71% are uncontrolled → ~61M adults
Among people with hypertension (NHANES 2017-18):
• 90.8% – had usual healthcare provider
• 93.2% – had a visit in the last year

Aim: Prevent 1 million—or more—heart attacks and strokes in the next 5 years by:

• Promoting evidence-based strategies for cardiovascular disease prevention
• Convening like-minded health care and public health champions
• Facilitating meaningful collaboration and resource sharing
• Addressing health equity through specific policies, processes, and practices
### 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’
Hypertension Control Change Package (HCCP) 2nd Edition, 2020

Access the Change Package at: https://millionhearts.hhs.gov/tools-protocols/action-guides/htn-change-package/index.html

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**Table 1. Key Foundations (continued)**

<table>
<thead>
<tr>
<th>Change Concept</th>
<th>Change Idea</th>
<th>Tools and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage refusal</td>
<td>- NCP Health &amp; Hospitals: Adult Hypertension Clinical Practice Guidelines</td>
<td>- Treatment of Resistant Hypertension</td>
</tr>
<tr>
<td>Implement a Policy or Process to Address BP for Every Patient with HTN at Every Visit</td>
<td>- Zufall Health: Guidelines for Screening, Diagnosis and Management of Hypertension (pp. 12-13)</td>
<td>- NCVS/AHA: Resistant Hypertension: Detection, Evaluation, and Management: A Joint Scientific Statement of the National Council on Vital and Health Statistics (NCVHS) and the American Heart Association (AHA)</td>
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**Table 2. Equipping Care Teams**

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<td>- AMF: Measure Up Pressure Down Provider Toolkit to improve Hypertension Control Plan: 1: Tool 7: How to Take Blood Pressure Property: The Wrong Way. Cornerstone Health Care (now Wake Forest Baptist Health) [video]</td>
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<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Measure BP in the sitting position.</td>
</tr>
<tr>
<td>2</td>
<td>Ensure the patient is sitting for at least 5 minutes before taking the BP.</td>
</tr>
<tr>
<td>3</td>
<td>Use a BP cuff that is the appropriate size for the patient.</td>
</tr>
<tr>
<td>4</td>
<td>Ensure the BP cuff fits snugly around the upper arm.</td>
</tr>
<tr>
<td>5</td>
<td>Inflate the BP cuff until the Korotkoff sounds disappear.</td>
</tr>
<tr>
<td>6</td>
<td>Deflate the BP cuff slowly to allow the Korotkoff sounds to return.</td>
</tr>
<tr>
<td>7</td>
<td>Record the diastolic BP when the Korotkoff sounds first disappear.</td>
</tr>
</tbody>
</table>

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Access the Change Package at: https://millionhearts.hhs.gov/tools-protocols/action-guides/htn-change-package/index.html
Focus Areas

Key Foundations
- Office redesign

Equipping Care Teams
- Establishing SMBP Programs

Population Health Management
- IDing potentially undx HTN or CKD
- Using data to drive improvement

Individual Patient Supports
- Patient supports for lifestyle modification, SMBP
- Using order sets
Use Practice Data to Drive Improvement
Use Practice Data to Drive Improvement

Change Concept

Determine HTN control and related process metrics for the practice

Regularly provide a dashboard with BP goals, metrics, and performance
Use Practice Data to Drive Improvement

Change Concept

Determine HTN control and related process metrics for the practice

Regularly provide a dashboard with BP goals, metrics, and performance

Change Ideas

Tools & Resources
Hypertension Treatment Protocols
Identifying all patients eligible for management

Monitoring at the practice level

Increasing patient and provider awareness

Providing an effective diagnosis and treatment guideline

Systematic follow-up of patients for the initiation and intensification of therapy

Clarifying roles of healthcare providers to implement a team approach

Reducing barriers for patients to receive and adhere to medications and to implement lifestyle modifications

Characteristics of Comprehensive HTN Protocols

- Accurate blood pressure measurement
- Optimal blood pressure targets
- Follow-up intervals
- Supportive strategies for medication adherence
- Consider medication costs and formularies
- Medication initiation and intensification guidance
- Lifestyle modification referral pathways
- Team-based care approach
- Atherosclerotic cardiovascular disease risk calculation

Protocol Resources

- Evidence-based protocols examples:
  - American Medical Association
  - U.S. Department of Veterans Affairs
  - Kaiser Permanente
- Key protocol components, implementation guidance, customizable template
- Cholesterol management, tobacco cessation
- https://millionhearts.hhs.gov/tools-protocols/protocols.html#htp
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
Strong Evidence Base

SMBP with additional clinical support:

• Supported by numerous meta-analyses and systematic reviews
• Included in Task Force Recommendations
  ▪ USPSTF – HTN screening
  ▪ CPSTF – HTN management; cost effective
• Included in numerous domestic and international clinical guidelines
  ▪ 2017 ACC/AHA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults
• Highlighted in the US Surgeon General’s 2020 Call to Action to Control Hypertension
Clinician guidance on:
- Selecting a device
- Proper cuff sizing
- Preparation and positioning
- Clinical protocol with frequency and duration
- Method for returning patient-generated values

Wall HK, Am J Hypertens. 2022 Mar;35(3):244-255.
Table 2. Equipping Care Teams (continued)

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<tr>
<td>Develop a home BP monitor loaner program</td>
<td>• Target: BP — SMBP Loaner Device Agreement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Open Door Family Medical Centers — Blood Pressure Monitor Loan Agreement (English and Spanish).</td>
<td></td>
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<tr>
<td></td>
<td>• Target: BP — Inventory Management.</td>
<td></td>
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<tr>
<td></td>
<td>• Target: BP — SMBP Patient Training Checklist — Loaner Device.</td>
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<tr>
<td></td>
<td>• AMA — Cleaning and disinfection procedure.</td>
<td></td>
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<tr>
<td></td>
<td>• Kaiser Permanente — PHASE SMBP Community of Practice: SMBP Loaner Pilot Model Design (pp. 15-22).</td>
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Table 4. Individual Patient Supports (continued)

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<tr>
<td>Support Patients in HTN Self-Management During Their Routine Daily Activities (i.e., outside of the clinical encounter)</td>
<td>Provide patient supports for SMBP monitoring.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Target: BP — SMBP Infographic: How to measure your blood pressure at home.</td>
<td></td>
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<tr>
<td></td>
<td>• Target: BP — 7 Day Recording Sheet SMBP.</td>
<td></td>
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<tr>
<td></td>
<td>• Washington State Department of Health — How to Check Your Blood Pressure: English.</td>
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<tr>
<td></td>
<td>— Spanish: Chinese, Russian, and Vietnamese also available.</td>
<td></td>
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<tr>
<td></td>
<td>• NYC DOHMH — Blood Pressure Tracking Card &amp; Action Plan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• New West Physicians — Home BP EMR Entry.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Target: BP — SMBP Using a Wrist Cuff to Measure Blood Pressure (Not recommended for most patients).</td>
<td></td>
</tr>
</tbody>
</table>
Michigan Coverage

- SMBP devices – $62.30
- SMBP extra BP cuff – $20.58
- Education/training – $6.14 (1x)
- Interpretation/care plan inclusion – $8.32 (monthly)

SMBP Resources


NACHC – National Association of Community Health Centers; AMA – American Medical Association; AHA – American Heart Association
Million Hearts® SMBP Forum

• Quarterly webinar to facilitate the exchange of SMBP best practices, tools, and resources

Registration instructions:
2. Select the meeting(s) you want to attend in 2022 and click ‘Register’
3. Complete the registration questions
4. Look for the calendar invite(s) from WebEx (be sure to check your spam folder!!)

• Past SMBP Forum recordings/materials can be accessed at https://confluence.nachc.org/display/SMBP/Quarterly+Meeting+Materials
• Questions can be sent to MillionHeartsSMBP@nachc.org
Accurate BP Measurement
Taking Office Blood Pressure Readings

• Empty bladder
• No caffeine
• Rest for 5 minutes
• Seated, back supported
• Legs uncrossed, feet on floor
• Cuff on bare arm (no clothing), arm supported
• Avoid talking, reading, or using electronics during readings
• Properly sized cuff
7 SIMPLE TIPS TO GET AN ACCURATE BLOOD PRESSURE READING

1. **Don't Have a Conversation**
   - Talking or active listening adds 10 mmHg
   - Use correct cuff size
   - Cuff too small adds 2-10 mmHg

2. **Empty Bladder First**
   - Full bladder adds 10 mmHg

3. **SUPPORT ARM AT HEART LEVEL**
   - Unsupported arm adds 10 mmHg
   - Keep legs uncrossed
   - Crossed legs add 2-8 mmHg

4. **SUPPORT BACK/FEET**
   - Unsupported back and feet adds 5 mmHg

5. **Puts Cuff on Bare Arm**
   - Cuff over clothing adds 5-50 mmHg

6. **Adds 10 mmHg**

7. **Adds 6 mmHg**

**Sources:**

This 7 simple tips to get an accurate blood pressure reading was adopted with permission of the American Medical Association and The Johns Hopkins University. The original copyrighted content can be found at www.ama-assn.org/ama-johns-hopkins-blood-pressure-resources.

https://targetbp.org/tools_downloads/mbp/
## Table 2. Equipping Care Teams

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<tr>
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</table>
| **Train and Evaluate Direct Care Staff on Accurate BP Measurement and Documenting** | Provide guidance on measuring BP accurately | • **Cheshire Medical Center/Dartmouth-Hitchcock** — Obtaining Accurate Blood Pressure Measurements in the Ambulatory Setting: How Do You Size a Blood Pressure Cuff? (pp. 14–19)  
• Target: BP — **Blood Pressure Measurement: Measure Accurately**  
• Target: BP — 7 Simple Tips to Get an Accurate Blood Pressure Reading  
• AHA — The Importance of Measuring Blood Pressure Accurately Webinar (video) (CE credits)  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 1: Tool 11: Blood Pressure Accuracy and Variability Quick Reference, HealthPartners  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 1: Tool 7: **How to Take Blood Pressure Properly** (video)  
  • How to Take Blood Pressure Properly: The Wrong Way, Cornerstone Health Care (now Wake Forest Baptist Health) (video)  
  • How to Take Blood Pressure Properly: The Right Way, Cornerstone Health Care (now Wake Forest Baptist Health) (video)  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 1: Tool 14: **Accurate Blood Pressure Measurement**, Premier Medical Associates (video)  
• Heart Health Now! North Carolina Cooperative — **Office BP Measurement: Current Challenges and Best Practices** |
| **Assess adherence to proper BP measurement technique** | | • Target: BP — **Technique quick-check**  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 1, Tool 8: New Employee Blood Pressure Measurement Initial Competency Checklist, HealthPartners  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 1, Tool 9: Blood Pressure Champion and CDS Education and Auditing Process for New Staff, HealthPartners  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 1, Tool 10: Quarterly Blood Pressure Auditing Tool, HealthPartners  
• AMGF — Measure Up Pressure Down Provider Toolkit to Improve Hypertension Control: Plank 4, Tool 4: Blood Pressure Spot Check, Kaiser Permanente |
Table 4. Body Position and BP Measurement

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP</td>
<td>has been reported to be 3–10 mm Hg higher in the supine than</td>
</tr>
<tr>
<td></td>
<td>the seated position.</td>
</tr>
<tr>
<td>DBP</td>
<td>is ≈1–5 mm Hg higher when measured supine vs seated.</td>
</tr>
</tbody>
</table>

Office Redesign – “BP Lounge”

• Quiet room connected to the waiting room
• True resting blood pressure
• Receptionist asks the person to expose their arm and sit comfortably for 5 minutes and starts timer
• After timer goes off, a medical assistant is called to take the BP
Devices

- Automatic, upper-arm devices are preferred
- Wrist cuffs may be more convenient in dental settings, when clothing is a problem
  → Potential user error; use proper technique –
# Clinically Validated Devices


<table>
<thead>
<tr>
<th>Brands</th>
<th>Device Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Brands</td>
<td>Wrist</td>
</tr>
<tr>
<td>Omron</td>
<td>Wrist</td>
</tr>
</tbody>
</table>

### Validation Protocol

- **Omron BP6100 HEM-6181**
  - Cuff Sizes: Wrist (13.5-21.5 cm)
  - Populations Served: Special Considerations - see note
Finding Potentially Undiagnosed Hypertensives

“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

Uncontrolled HTN ($\geq 140/90$)

34.6M US Adults with uncontrolled HTN

- 16.1M Aware and treated
- 7.0M Aware and untreated
- 11.5M "Unaware"

Source: 2013-2014 National Health and Nutrition Examination Survey
“Unaware” – A Closer Look

- 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

Source: 2011-2014 National Health and Nutrition Examination Survey
## Controlling High Blood Pressure Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Measure Definition</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NQF 0018</td>
<td>The percentage of patients 18-85 years of age who had a <strong>diagnosis</strong> of HTN and whose BP was adequately controlled (&lt;140/90) during the measurement year.</td>
<td>I10 (Essential HTN)</td>
</tr>
<tr>
<td>CMS165</td>
<td></td>
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</tr>
</tbody>
</table>

NQF – National Quality Forum; CMS165 – numbering convention for the CMS e-specified measures
Assessing Hypertension Control

100 patients with diagnosed hypertension

70 patients with blood pressure < 140/90

\[(70/100) \times 100 = 70\% \text{ control}\]
150 patients with hypertension?

- 100 patients with diagnosed hypertension
- 50 patients with abnormal BP values

70 patients with blood pressure < 140/90

(70/150) * 100 = 47% control
4-Step Process

1. Compare to local, state, or national prevalence data
2. Establish clinical criteria for potential undiagnosed HTN
3. Search EHR data for patients that meet clinical criteria
4. Implement a plan for addressing the identified population

FINDING PATIENTS WITH UNDIAGNOSED HTN

Are patients with hypertension being missed?

- Calculate practice prevalence

\[
\text{Prevalence} = \frac{\text{# of adult patients with a diagnosis of HTN (e.g. ICD-10 I10)}}{\text{# of adult patients (18-85, not pregnant, no ESRD)}} \times 100
\]

- Compare to 31% (140/90 mmHg) or 44% (130/80 mmHg)

OR

- Use the Million Hearts Hypertension Prevalence Estimator Tool
  - [https://nccd.cdc.gov/MillionHearts/Estimator/](https://nccd.cdc.gov/MillionHearts/Estimator/)
Clinical Criteria for Undiagnosed Hypertension

• Use guidelines supported by the practice
• Consider:
  o Stages of hypertension
  o # of abnormal values
  o Time period
• Adults 18-85
• Standard exclusion criteria
  → Patients who have died
Use Electronic Health Record Data

- Population health management software solutions
- EHR registry functionality
- Embed automated algorithms into EHR
  - Requires informatics staff
- Customized reports from EHR vendor

Search EHR data for patients that meet clinical criteria
Plan for Confirmation and Treatment

- 24-hour Ambulatory BP monitoring (ABPM)
- Self-measured BP monitoring (SMBP)
- Automated Office BP machines (AOBP)
- Confirmatory office measures

- USPSTF HTN screening recommendation
- 2017 ACC/AHA HTN Guideline

Implement a plan for addressing the identified population
What to do with patients confirmed to not have hypertension?

- ICD-10-CM – R03.0 – Elevated blood-pressure reading, without diagnosis of hypertension
  - “This category is to be used to record an episode of elevated blood pressure in a patient in whom no formal diagnosis of hypertension has been made, or as an isolated incidental finding.”
  - [http://www.icd10data.com/ICD10CM/Codes/R00-R99/R00-R09/R03-/R03.0](http://www.icd10data.com/ICD10CM/Codes/R00-R99/R00-R09/R03-/R03.0)
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</table>
| Identify Patients with Potentially Undiagnosed HTN                        | Compare practice HTN prevalence to national or local estimates to understand if you might be missing patients with undiagnosed HTN                                                                                                                                                                                                                           | Million Hearts® — Hypertension Prevalence Estimator Tool  
Vermont Department of Health and the New England QIN-QIO — From 70 to 80 Percent: The Hypertension Management Toolkit: Task 2: How Does Your Practice Compare to Local and National Benchmarks?  
AMGA — Hypertension Prevalence — AMGA Results Using Dx Code, Problem List, and Elevated Blood Pressure Readings[10]  
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 I: Undiagnosed Hypertension Algorithms and Clinical Criteria Decision Points, HIPS Project  
Patients with Undiagnosed Hypertension: Hiding in Plain Sight, Wall HK, et al., 2014[12]  
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 - 121 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: Appendix I: Million Hearts® HIPS Recall Report, Golden Valley Health Centers  
NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: Appendix K: HIPS Recall List - 121 Tracks, La Maesta Community Health Centers  
NACHC — Million Hearts® Hiding in Plain Sight Consolidated Change Package: Appendix N: Patient Status and Opportunities Alert - eClinicalWorks, Neighborhood Healthcare |

[NATIONAL HEART, LUNG, AND BLOOD INSTITUTE](https://millionhearts.hhs.gov/files/HTN_Change_Package.pdf)
**Hypertension Control Change Package**

**Table 3. Population Health Management**

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<tr>
<td></td>
<td>Establish clinical criteria for potential undx HTN</td>
<td>- 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.&lt;br&gt;- NACHC — Million Hearts® Hiding In Plain Sight Consolidated Change Package: <strong>Appendix L: Undiagnosed Hypertension Algorithms and Clinical Criteria Decision Points, HIPS Project</strong>&lt;br&gt;- Patients with Undiagnosed Hypertension: Hiding in Plain Sight, Wall HK, et al., 2014.</td>
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<tr>
<td></td>
<td>Search EHR data for patients that meet clinical criteria</td>
<td>- NACHC — Million Hearts® Hiding In Plain Sight Consolidated Change Package: <strong>Appendix M: Potentially Undiagnosed Hypertension Algorithm used to Generate Registries and Reports - 121 Tracks, Golden Valley Health Centers and Tulare Community Health Clinic (now Altura Centers for Health)</strong>&lt;br&gt;- Identifying Patients with Hypertension: A Case for Auditing Electronic Health Record Data. Baus A, et al., 2012.&lt;br&gt;- Plymouth Family Physicians — Patient-Level Report</td>
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<tr>
<td></td>
<td>Implement a plan for addressing the identified population</td>
<td>- NACHC — Million Hearts® Hiding In Plain Sight Consolidated Change Package: <strong>Appendix J: Million Hearts® HIPS Recall Report, Golden Valley Health Centers</strong>&lt;br&gt;- NACHC — Million Hearts® Hiding In Plain Sight Consolidated Change Package: <strong>Appendix K: HIPS Recall List – 121 Tracks, La Maesta Community Health Centers</strong>&lt;br&gt;- NACHC — Million Hearts® Hiding In Plain Sight Consolidated Change Package: <strong>Appendix N: Patient Status and Opportunities Alert - cClinicalWorks, Neighborhood Healthcare</strong></td>
</tr>
</tbody>
</table>

For additional resources, please see the NACHC Million Hearts® Hiding In Plain Sight Consolidated Change Package: NYC DOHMH and HealthyHearts NYC — ABCS Toolkit for the Practice Facilitator: Task 85: Respond quickly to control elevated BP by targeting undiagnosed hypertension (HTN).

[https://millionhearts.hhs.gov/files/HTN_Change_Package.pdf](https://millionhearts.hhs.gov/files/HTN_Change_Package.pdf) #page=18
• 100,000K patients from 10 FQHCs from 4 Health Center Controlled Networks – CA, KY, MO

• Clinical criteria:
  - ≥ 2 elevated BP (≥140 SBP or ≥ 90 DBP), past 12 months
  - 1 Stage 2 (≥ 160 SBP or ≥ 100 DBP), past 12 months

• NACHC HIPS Change Package –
  http://mylearning.nachc.com/diweb/fs/file/id/229350
Undiagnosed Hypertension Cohort

65.2% had a follow up visit

31.9% were dx w/HTN
Take Home Messages

• It will take an all-hands-on-deck approach to tackle hypertension in the U.S.
• Evidence-based strategies to improve blood pressure control exist
• Accurate BP readings are an essential first step
• Millions of people are ‘hiding in plain sight’ with potentially undiagnosed hypertension
Questions?

Hilary Wall – hwall@cdc.gov