The Right Care
University of Best Practices

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Hypertension is Common; Control is Not

• **116M** US adults have high blood pressure, defined as BP >130/ >80.
• National control rate is low and recently, trending downward.
• Uncontrolled HTN causes heart attacks, strokes, heart and kidney failure, dementia, and severe morbidity and mortality in pregnancy.
• Striking disparities exist in prevalence and control.
• Control is possible through a balance of specific public health, healthcare, and individual actions.

Alarming Trends in CVD Mortality in Adults Aged 35-64
A Health and Healthcare Crisis

Percent change in heart disease rate, 2010–2017 (% of counties)
- Decrease of 10.0 or greater (6.2%)
- Decrease of 2.0 to 9.9 (19.0%)
- Decrease of 0.0 to 1.9 (6.3%)
- Increase of 0.1 to 2.0 (7.4%)
- Increase of 2.1 to 10.0 (27.1%)
- Increase of 10.1 or greater (34.1%)

Percent change in stroke rate, 2010–2016 (% of counties)
- -10 or less (10.7%)
- -10 to -2 (21.4%)
- -2 to <0 (6.0%)
- 0 to <2 (7.7%)
- 2 to <10 (25.4%)
- 10 or more (27.7%)
- Unreliable Estimate (1.1%)

Hypertension Harms

More than 55% of Black or African American Men & Women have HTN

60% of B/AA men have cardiovascular disease including heart disease and stroke¹

57% of B/AA women have cardiovascular disease¹

2-3x B/AA adults have 2-3 times the risk of stroke as Whites²

3x B/AA adults are 3 times as likely as Whites to develop kidney failure³

2x B/AA women are 3 times as likely as Whites to die during pregnancy⁵

3x B/AA adults are twice as likely as Whites to die from preventable heart disease and stroke⁴

Hypertension is Costly
The Burden—in Dollars and Disease—is Unequal in the U.S.

County Differences in the Total Cost of Hypertension – Blacks/African Americans

Spark for Hypertension Control

• Proposes Hypertension as a National Priority
• Yes, even in the midst of the pandemic
• SMBP is one of the highlighted evidence-based strategies

Federal Response
Federal Hypertension Control Leadership Council

Purpose, Mission/Vision

• **Council Purpose:** The Federal HCLC convenes to inspire, coordinate and accelerate action to improve and achieve hypertension control.

• **Council Mission/Vision:** We will use Agency-related levers in a collective effort to improve and achieve national hypertension control with the goals of saving lives and dollars, eliminating disparities, and improving our nation’s health and resiliency.
Federal Agencies Already in Action

- Agency for Healthcare Research and Quality’s (AHRQ)
- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare & Medicaid Services (CMS)
- Food and Drug Administration (FDA)
- Health Resources and Services Administration (HRSA)
- Indian Health Services (IHS)
- National Institutes of Health (NHLBI, NINDS)
- Office of Disease Prevention and Health Promotion (ODPHP)
- Offices on Women’s Health (OWH) and Minority Health (OMH)
- Office of the National Coordinator for Health Information Technology (ONC)
Hypertension in the Context of 2021

CONVERGING SYNDEMICS

HYPERTENSION CONTROL: A NATIONAL PRIORITY

Controlling hypertension for all Americans will save lives, improve health and resiliency, and reduce costs

COVID-19 CHALLENGES, CONSEQUENCES, OPPORTUNITIES

HEALTH EQUITY AND REDUCTION IN HEALTH DISPARITIES
Potential Framework and *Initial* Strategies

- **Improve Detection**
  - Find undiagnosed patients, hiding in plain sight, using electronic health record (EHR) diagnostic algorithms.
  - Advance clinicians’ use of validated BP monitors for diagnosis.
  - Build and expand community-based settings to detect and refer those with HTN.

- **Improve Control**
  - Increase use of team-delivered treatment protocols that support timely medication intensification and lifestyle modification.
  - Improve medication adherence (lower cost, simplify regimen, best practices).
  - **Advance uptake and practice of SMBP.**
  - Recognize and reward high performance and improvement (individuals, clinical teams, systems).
  - Connect people to care using community-based screenings.

- **Improve Prevention**
  - Increase access to affordable, lower-sodium food options.
  - Increase access to safe places to be active, participation in lifestyle programs and implementation of physical activity guidelines.
  - Build communities with equitable access to affordable, healthy food and safe places to be active.
What is SMBP?

• Self-Measured Blood Pressure (SMBP) monitoring – the measurement of BP by an individual outside of a clinic setting including at home

• SMBP is NOT – BP taken at a 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
Self-Measured BP Monitoring
Widespread Implementation Would Save Lives, Unnecessary Suffering, $$$

• Supported by systematic reviews, task force recommendations, and clinical practice guidelines

• Convenient, improves accuracy of diagnosis, builds self-efficacy and facilitates timely treatment changes

• Challenges: access to monitors, education and training for patients and clinical teams, bi-directional data flow and analysis, payment and coverage

• Pockets of innovation and excellence exist as well as guidance from trusted sources.

“Virtuous” Feedback Loop

Patient

Self-measured blood pressure readings
Lifestyle habits (e.g., smoking, diet, exercise)
Medication side effects and adherence barriers
Insights into variables affecting control of blood pressure

Clinician

Adjustments to medication type and dose to achieve goal blood pressure
Suggestions to achieve lifestyle changes
Actions to sustain or improve adherence
Advice about community resources to assist in controlling blood pressure
# Challenges to Advancing SMBP

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<thead>
<tr>
<th>Challenges</th>
<th>Opportunities</th>
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<tr>
<td>BP monitor availability</td>
<td><strong>CDC/NACDD Coverage analysis</strong>&lt;br&gt;  • Room for improvement – Medicare, Medicaid, other public, private payers; VBID&lt;br&gt;  • BP device loaner programs – resources from NACHC, TargetBP</td>
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<td>Appropriate cuffs – size</td>
<td>• ~50% of health center patients needed XL cuffs among 9 health centers participating in the NACHC Accelerating SMBP Project.&lt;br&gt;  • Work with vendors to improve Large and XL cuff availability</td>
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<tr>
<td>Appropriate cuffs – validity</td>
<td>• Encourage device manufacturers to list devices on the <a href="http://www.usbp.com/VDL">US Blood Pressure Validated Device Listing</a> (VDL)&lt;br&gt;  • Encourage validation studies in pregnant women, others</td>
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<td>Health Information Technology</td>
<td>• CDC/PHII SMBP HIT Environmental Scan and Recommendations – final report coming this summer</td>
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<td>Internet issues – access, cost</td>
<td>• Rural areas&lt;br&gt;  • Low resource populations</td>
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<tr>
<td><strong>Sustainability</strong></td>
<td>• New CPT codes, Jan 1, 2020; adapted performance measure</td>
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NACDD – National Association of Chronic Disease Directors; VBID – value-based insurance design; PHII – Public Health Informatics Institute; HIT – health information technology
Patient Stories

Taking Control of My Blood Pressure: D’Angelo’s Story – https://www.youtube.com/watch?v=VNQQ8ranUZo

Taking Control of My Blood Pressure: Natalia’s Story – https://www.youtube.com/watch?v=malq4KnCESY
Are Community Health Center Patients Interested in Self-Measured Blood Pressure Monitoring (SMBP) – And Can They Do It?

Introduction: Self-measured blood pressure monitoring (SMBP) helps diagnose and manage hypertension from outside the clinic, which has implications for patient empowerment and outcomes, continuity of care, and resilience in core communities and vulnerable populations.

Methods: We instigated a protocol for SMBP among hypertensive patients in health centers in 3 states and administered questionnaires to patients being initiated on protocol. The protocol was instituted to assess knowledge and engagement with diagnosis, beliefs and attitudes towards, and experience doing SMBP. Questionnaire items designed to evaluate patient perceptions and beliefs about SMBP, a series of questions using a 5-point Likert scale. Binary questions related to ability to comply with specific SMBP guidelines and open-ended questions for further input into patient sentiment.

Accelerating Use of Self-measured Blood Pressure Monitoring (SMBP) Through Clinical-Community Care Models

Abstract
Self-measured blood pressure monitoring (SMBP), the regular measurement of blood pressure by a patient outside the clinical setting, plus additional support, is a proven, cost-effective but underutilized strategy to improve hypertension outcomes. To accelerate SMBP use, the Centers for Disease Control and Prevention (CDC) funded the National Association of Community Health Centers, the YMCA of the USA, and Association of State and Territorial Health Officials to develop cross-sector care models to offer SMBP to patients with hypertension. The project aimed to increase the use of SMBP through the coordinated action of health department leaders, community organizations and clinical providers. From 1/31/2017 to 6/30/2018, nine health centers in Kentucky, Missouri, and New York partnered with seven local Y associations (local Y) and their local health departments to design and implement care models that adapted existing primary care SMBP practices by leveraging community resources, including local Y programs.
SMBP Work Underway

- National Hypertension Control Initiative: Addressing Disparities among Racial and Ethnic Minority Populations
- Partnership between the Healthcare Resources and Services Administration (HRSA) and Office of Minority Health (OMH)
- >$120M including $90M awarded to 496 health centers across 48 states, the District of Columbia, and US territories
- 3-year project will include the use of SMBP technology to increase the number of adult patients with controlled HTN.
SMBP Resources for Implementers

• Million Hearts – https://millionhearts.hhs.gov/tools-protocols/smbp.html
• Million Hearts Hypertension Control Change Package, Establish an SMBP Program – https://millionhearts.hhs.gov/files/HTN_Change_Package.pdf#page=16
• AMA/AHA Target:BP Tools and Downloads – https://targetbp.org/tools-downloads/?sort=topic&

AMA – American Medical Association; AHA – American Heart Association
Advancing SMBP

• **Find your role** in the Sector Strategies at https://www.cdc.gov/bloodpressure/CTAstrategies.htm

• **Join the SMBP Forum** at http://bit.ly/SMBPForum to exchange best practices, tools, and resources
  – Go to www.healthcarecommunities.org and create an account
  – Search for ‘SMBP’ under the ‘Available Communities’ tab
  – Click “Join Community”
  – Questions: MillionHeartsSMBP@nachc.org
Thank you

Reach me at janet.wright@cdc.hhs.gov