Beating African Americans Number One Killer: Heart Disease

The Role of Million Hearts 2022

National Minority Quality Forum Annual Summit
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The opinions expressed by the speaker do not necessarily reflect the opinions of the US Department of Health and Human Services, the Public Health Service, the Centers for Disease Control and Prevention, or the Center for Medicare and Medicaid Services.

Dr. Wright has no conflicts to disclose.
Million Hearts® 2022
Aim: Prevent 1 Million Heart Attacks and Strokes in 5 Years

Keeping People Healthy
Optimizing Care
Priority Populations
### Million Hearts® 2022

**Objectives and Goals**

#### Keeping People Healthy

<table>
<thead>
<tr>
<th>Objective</th>
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<tbody>
<tr>
<td>Reduce Sodium Intake</td>
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<tr>
<td>Decrease Tobacco Use</td>
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<tr>
<td>Increase Physical Activity</td>
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#### Optimizing Care

<table>
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<tr>
<th>Objective</th>
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<tbody>
<tr>
<td>Improve ABCS*</td>
</tr>
<tr>
<td>Increase Use of Cardiac Rehab</td>
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<tr>
<td>Engage Patients in Heart-healthy Behaviors</td>
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</tbody>
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#### Improving Outcomes for Priority Populations

<table>
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<tr>
<th>Population</th>
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<tbody>
<tr>
<td>Blacks/African Americans with Hypertension</td>
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<tr>
<td>35- to 64-year-olds due to rising event rates</td>
</tr>
<tr>
<td>People who have had a heart attack or stroke</td>
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<tr>
<td>People with mental and/or substance use disorders who smoke</td>
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</table>

*Aspirin use when appropriate, Blood pressure control, Cholesterol management, Smoking cessation
Relative Contributions to “the Million”

Hypertension costs $131 billion annually in health care services, medications and missed days of work.

Achieving 70% CR participation rate => 25K lives saved and 180K hospitalizations prevented annually

Notes: Describes the estimated number of events prevented if Million Hearts objectives are gradually achieved during 2017-2021. The events included closely aligns with those outlined in Ritchey et al. JAMA. 2017;6(5). The total no. of expected events prevented does not equal the sum of events prevented by risk factor type as those totals are not mutually exclusive. The “aspirin when appropriate” intervention reflects aspirin use for secondary prevention only.

Hypertension in Blacks/African Americans:

Awareness: High    Treatment: Moderate    Control: Too LOW

Non-Hispanic black (11.1 million)
- Controlled, 46.3% (5.1 million)
- Uncontrolled, 53.7% (6 million)

Non-Hispanic black: Uncontrolled (6.0 million)
- Aware and Treated, 54.2% (3.2 million)
- Unaware, 27.2% (1.6 million)
- Aware and Untreated, 18.7% (1.1 million)

Source: National Health and Nutrition Examination Survey 2013-2014
Hypertension Harms

- **44%**
  - Nearly 44% of Black/African American men have cardiovascular disease including heart disease and stroke\(^1\)

- **48%**
  - 48% of Black/African American women have cardiovascular disease\(^1\)

- **2-3x**
  - Blacks/African Americans have two-three times the risk of stroke as whites\(^2\)

- **4x**
  - Blacks/African Americans are almost four times as likely as whites to develop kidney failure\(^3\)

- **2x**
  - Blacks/African Americans are nearly twice as likely as whites to die from preventable heart disease and stroke\(^4\)

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1) CDC: African Americans Heart Disease and Stroke Fact Sheet
2) AHA Heart Disease and Stroke Statistics - 2017 Update
3) NIDDK: Race, Ethnicity, and Kidney Disease
4) CDC Vital Signs: Preventable Deaths from Heart Disease and Stroke
# Keeping People Healthy

<table>
<thead>
<tr>
<th>Goals</th>
<th>Effective Public Health Strategies</th>
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<tbody>
<tr>
<td><strong>Reduce Sodium Intake</strong></td>
<td>• Enhance consumers’ options for lower sodium foods</td>
</tr>
<tr>
<td><strong>Target:</strong> 20%</td>
<td>• Institute healthy food procurement and nutrition policies</td>
</tr>
<tr>
<td><strong>Decrease Tobacco Use</strong></td>
<td>• Enact smoke-free space policies that include e-cigarettes</td>
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<tr>
<td><strong>Target:</strong> 20%</td>
<td>• Use pricing approaches</td>
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<tr>
<td></td>
<td>• Conduct mass media campaigns</td>
</tr>
<tr>
<td><strong>Increase Physical Activity</strong></td>
<td>• Create or enhance access to places for physical activity</td>
</tr>
<tr>
<td><strong>Target:</strong> 20%</td>
<td>• Design communities and streets that support physical activity</td>
</tr>
<tr>
<td><strong>(Reduction of inactivity)</strong></td>
<td>• Develop and promote peer support programs</td>
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## Optimizing Care

<table>
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<th>Goals</th>
<th>Effective Health Care Strategies</th>
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<tr>
<td>Improve ABCS*</td>
<td><em>High Performers Excel in the Use of…</em></td>
</tr>
<tr>
<td>Targets: 80%</td>
<td>• Teams—including pharmacists, nurses, community health workers, and cardiac rehab professionals</td>
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<tr>
<td></td>
<td>• Technology—decision support, <strong>patient portals, e- and default referrals</strong>, registries, and algorithms to find gaps in care</td>
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<tr>
<td></td>
<td>• Processes—<strong>treatment protocols</strong>; daily huddles; ABCS scorecards; <strong>proactive outreach</strong>; finding those with undiagnosed high BP or cholesterol, tobacco use, particulate matter exposure</td>
</tr>
<tr>
<td></td>
<td>• <strong>Patient and Family Supports</strong>—<strong>training in home blood pressure monitoring; problem-solving in medication adherence</strong>; counseling on nutrition, physical activity, tobacco use, risks of particulate matter; <strong>referral to community-based physical activity programs and cardiac rehab</strong></td>
</tr>
<tr>
<td>Increase Use of Cardiac Rehab</td>
<td></td>
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<tr>
<td>Target: 70%</td>
<td></td>
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<tr>
<td>Engage Patients in Heart-healthy Behaviors</td>
<td></td>
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<tr>
<td>Targets: TBD</td>
<td></td>
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*Aspirin use when appropriate, BP control, Cholesterol management, Smoking cessation*
## Improving Outcomes for Priority Populations

<table>
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<tr>
<th>Priority Population</th>
<th>Objectives</th>
<th>Strategies</th>
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</table>
| Blacks/African Americans                                | • Improving hypertension control                                            | • Implement guideline-based protocol  
• Problem-solve in med adherence  
• Advance practice of self BP monitoring  
• Increase access to and participation in community-based activity programs |
| 35-64 year olds                                          | • Improving HTN control and statin use  
• Decreasing physical inactivity                                             | • Implement treatment protocols  
• Increase access to and participation in community-based activity programs |
| People who have had a heart attack or stroke             | • Increasing cardiac rehab referral and participation  
• Avoiding exposure to particulates                                            | • Use opt-out referral and CR liaison visits at discharge; ensure timely enrollment  
• Increase use of Air Quality Index |
| People with mental and/or substance abuse disorders who smoke | • Reducing tobacco use                                                        | • Integrate tobacco cessation into behavioral health treatment  
• Tobacco-free treatment facilities  
• Tailored quitline protocols |
CARDIAC REHABILITATION

SAVING LIVES 💚 RESTORING HEALTH 💚 PREVENTING DISEASE

BENEFITS OF CARDIAC REHABILITATION

Benefits to People

Those who attend 36 sessions have a 47% lower risk of death and 31% lower risk of heart attack than those who attend only one session.

Benefits to Health Systems

Costs per year of life saved range from $4,950 to $9,200 per person. Cardiac rehab participation also reduces hospital readmissions.
CR: Who Benefits?

Strong evidence of benefit--and good insurance coverage

• Those with a prior heart attack or stable angina
• Systolic heart failure and EF < 35%
• Stent or angioplasty
• Peripheral arterial disease with claudication
• Bypass, valve, or heart or lung transplant surgery
Many People Who Can Benefit Are Not Being Referred

Minority status predicts lower referral and participation rates.
Women, minorities, older people and those with other medical conditions are under-referred to cardiac rehab.

One of the best predictors of cardiac rehab referral is if the eligible person speaks English.
Asian Americans are 18 times more likely to have limited English, compared to whites.

Black women are 60% less likely to be referred and enroll in cardiac rehab programs, compared to white women.

We Know What Works To Improve Referral Rates

Automatic, systematic referral to cardiac rehab at discharge can help connect eligible people with these programs.

Strong coordination between inpatient, home health, and outpatient cardiac rehab programs boosts referral rates, as well as participation rates and outcomes.

Patients' medical teams -- and families -- can support and encourage participation in cardiac rehab programs.
Awareness campaigns should be targeted to people and caregivers.

Only 20% of eligible patients are referred... ...and only half of referred patients actually participate.
Million Hearts Cardiac Rehab Collaborative

- Amer Assoc of Cardiac and Pulm Rehab
- Amer Association of Nurse Practitioners
- American Academy of Family Practice
- American College of Cardiology
- American College of Physicians
- American College of Sports Medicine
- American Council on Exercise
- America’s Essential Hospitals
- American Heart Association
- American Hospital Association/HRET
- Blue Cross Blue Shield Assoc
- Christiana Care
- Cleveland Clinic
- Clinical Exercise Physiology Assoc
- CR Participants & Caregivers
- Emory University
- George Washington University School of Public Health and Health Services
- Heart Failure Society of America
- HHQI
- Hospital of the University of PA
- Howard University
- Johns Hopkins
- Mended Hearts
- MedStar Health System
- National Medical Association
- Ohio State University
- PCORI
- Preventive CV Nurses Assoc
- Relevate Health Group
- Rush University Medical Center
- Seton Hall University
- Sutter Health
- University Hospitals
- UC Davis
- UCLA
- U of Pennsylvania
- U of Pittsburg
- U of Vermont Health Network
- Vanderbilt University
- Visiting Nurse Service of NY
- WomenHeart
What is Million Hearts Doing?

• In all work, encourage stratification of performance data by race/ethnicity, gender, and geography
• Shepherd the CR Collaborative action plan
  • Reach 5M people about the value of and disparities in CR by 12/31/18
  • Facilitate adoption of best practices in referral, enrollment, participation
• Align with key federal partners to improve BP control
  • CMS, CDC, and FDA Offices of Minority Health
  • CMS-supported networks of practices and hospitals
  • CDC-funded State and local health departments and WiseWoman
  • HRSA’s Bureau of Primary Health Care
What is Million Hearts Doing?

- Recognize Hypertension Control Champions annually and spread their tips and techniques
- Align with & assist key partners to improve BP control
  - Association of Black Cardiologists
  - Girl Trek, Walk with a Doc, Walk with a Mayor
  - National Association of Community Health Centers
  - National Black Nurses Association
  - National Medical Association

- NMQF and Sustainable Healthy Communities: Mapping CR by disease and demographic group and promoting better blood pressure control in Diabetes Working Group project
How You Can Be One in a Million

- Invest in controlling hypertension: self-monitor, be active, eat well, develop your team
- Build a system of care for hypertension: guideline-based protocol delivered by teams, proactively working to achieve safe control
- Create spaces and places to be active in your community
- Find and ensure enrollment in CR for people who can benefit
- Partner with Million Hearts and others to improve cardiovascular care and health for all
Thank you

• More information about Million Hearts 2022 at www.millionhearts.gov
• Reach me at janet.wright@cms.hhs.gov
Resources and Data

Thank you
New Resources

• Million Hearts® 2022 web content
  • Particle Pollution
  • Physical Activity
  • Tobacco Use
  • Partner Opportunities
  • Cardiac Rehabilitation

• EPA’s citizen science mobile app: Smoke Sense
Million Hearts® for Clinicians Microsite

- Makes an **evergreen** link to Million Hearts® content on your website
- Features Million Hearts® protocols, action guides, and other QI tools
- Uses a small amount of HTML code—customizable by color and responsive to layouts and screen sizes
- Content is free and continuously maintained by CDC

Million Hearts
Clinical Resources and Tools

• Action Guides
  • Hypertension Control: Change Package for Clinicians
  • Self-Measured Blood Pressure Monitoring: Action Steps for Clinicians
  • Identifying and Treating Patients Who Use Tobacco: Action Steps for Clinicians
• Team Protocols for treating Hypertension, Tobacco use, Cholesterol
• Undiagnosed Hypertension
  • Finding Patients “Hiding in Plain Sight” change package
  • Prevalence Estimator Tool
• Making the Most of Health IT
  • Million Hearts® EHR Optimization Guides-how to find and use data on the ABCS
• Clinical Quality Measures
  • Million Hearts® ABCS
  • Million Hearts® Dashboard – quality reporting on the ABCS measures by state
• Other Tools
  • ASCVD Risk Estimator
  • Hypertension Control Champion Success Stories

Million Hearts
Community Resources and Tools

• Action Guides
  • Self-Measured Blood Pressure Monitoring: Action Steps for Public Health
  • Medication Adherence: Action Steps for Public Health Practitioners
  • Medication Adherence: Action Steps for Health Benefit Managers
  • Cardiovascular Health: Action Steps for Employers
• CDC State Heart Disease and Stroke Prevention Programs
  • State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health (1305)
  • Coverdell National Acute Stroke Program
  • WISEWOMAN
  • Sodium Reduction in Communities
  • Building GIS Capacity for Chronic Disease Surveillance
• Million Hearts Cardiac Rehab Collaborative
• Healthy Is Strong
• 100 Congregations for Million Hearts
Million Hearts
Consumer Resources and Tools

- Heart Age Predictor
- My Life Check®
- High Blood Pressure: How to Make Control Your Goal
- Visit Checklist
- Supporting Your Loved One with High Blood Pressure
- Blood Pressure Wallet Card
- Smoke Free (SF)
- Million Hearts Videos (on YouTube)
- Million Hearts E-Cards & Shareables
- Mind Your Risks
- Tips from Former Smokers
Hypertension Prevalence

Prevalence of Hypertension, NHANES 2013-14

- Overall: 31.6%
- Non-Hispanic white: 33.5%
- Non-Hispanic black: 40.3%
- Non-Hispanic Asian: 24.9%
- Hispanic: 20.8%

* Significantly different

Source: National Health and Nutrition Examination Survey 2013-2014
Prevalence of controlled BP among those with hypertension, 
NHANES 2013-14

- Overall: 54.0%
- Race-Ethnicity:
  - Non-Hispanic white: 57.4%
  - Non-Hispanic black: 46.3%
  - Non-Hispanic Asian: 41.5%
  - Hispanic: 47.7%

* Significantly different

Source: National Health and Nutrition Examination Survey 2013-2014
Million Hearts CR Collaborative
2018-2021 Action Plan Objectives

• *Increase awareness* of the value of CR among health systems, clinicians, patients and families, employers, payers

• *Increase use of best practices* for referral, enrollment, and participation; address knowledge gaps.

• *Build equity* in CR referral, participation, and program staffing

• *Increase sustainability* of CR programs through innovations in program design, delivery, and payment

• *Measure, monitor, and report progress* toward the CRC aim
increasing CR participation from 20% to 70% would save 25,000 lives and prevent 180,000 hospitalizations annually in the US
Cardiac Rehab Use by Race/Ethnicity

*Completed 25 or more CR sessions

Source: Centers for Medicare and Medicaid Services’ Chronic Conditions Data Warehouse

<table>
<thead>
<tr>
<th>Race-Ethnicity</th>
<th>Eligible for CR and initiated</th>
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<tbody>
<tr>
<td>Overall</td>
<td>20.2</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>22.0</td>
</tr>
<tr>
<td>Non-Hispanic black</td>
<td>10.5</td>
</tr>
<tr>
<td>Non-Hispanic Asian</td>
<td>13.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.0</td>
</tr>
<tr>
<td>Other</td>
<td>18.7</td>
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Cardiac Rehab Participation by Race/Ethnicity

*Completed 25 or more CR sessions

Source: Centers for Medicare and Medicaid Services’ Chronic Conditions Data Warehouse
CENTRAL ILLUSTRATION  CR Referral in Heart Failure: Proportion and Predictors at Hospital Discharge

LESS LIKELY FOR CR REFERRAL

- Higher burden of co-morbidities (e.g., History of hypertension, cerebral vascular accident/stroke, transient ischemic attacks, chronic obstructive pulmonary disease, anemia, higher ejection fraction, and increased systolic blood pressure)

- Lower referral for Medicare patients

- Older age
  - Median age: 74 (62-83)

- Female sex
  - Lower referral for women

- Mid-west geographic location
  - Lower referral among Midwest centers

MORE LIKELY FOR CR REFERRAL

- In-hospital procedures
  - i.e., Coronary artery bypass grafting, percutaneous coronary intervention with/without stent, and cardiac valve surgery

- Medical therapies
  - i.e., Angiotensin converting enzyme inhibitors/angiotensin receptor blockers, and aldosterone antagonists at discharge

- Younger age
  - Median age: 70 (59-80)

- Male sex
  - Higher referral for men

- Southern geographic location
  - Higher referral among Southern centers

Proportion of eligible patients referred to cardiac rehabilitation (CR) at hospital discharge

89.6% not referred
10.4% referred


This chart represents the percentage of patients who were admitted to a hospital with heart failure who were referred for cardiac rehabilitation (CR) at the time of discharge from the hospital from 2005 to 2014 at 338 U.S. sites. Also depicted are positive and negative factors associated with CR referral at discharge that resulted in higher and lower likelihoods of CR referral, respectively.
Hypertension Control
Clinical Strategies for Success

• Finding people with undiagnosed hypertension

• Improving clinical processes that lead to BP control
  • https://millionhearts.hhs.gov/files/HTN_Change_Package.pdf

• Using treatment protocols that enable team-care
  • https://millionhearts.hhs.gov/tools-protocols/protocols.html#HTP

• Addressing medication adherence
  • https://millionhearts.hhs.gov/tools-protocols/medication-adherence.html

• Making it easy for people to monitor their own BP
  • https://millionhearts.hhs.gov/tools-protocols/smbp.html
Data to Focus Action

Heart Disease Death Rates Among Blacks and Whites
Aged ≥35 Years – United States, 1968-2015

- Death rates declined more slowly for blacks than whites over time
- The black-white mortality ratio increased over time
- 2015 death rates for blacks were higher than whites in most states

-2.2% vs. -2.4%
(average annual percent change from 1968 to 2015)

1.04 ➔ 1.21
(change from 1968 to 2015)

68%
(% of states with rates higher for blacks than whites in 2015)

Van Dyke et al. MMWR Surveill Summ
March 30, 2018 / No. 6