Making Million Hearts® Real for Wyoming

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Centers for Disease Control and Prevention

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Disclosures

• None

The opinions expressed by authors contributing to this project 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 authors’ affiliated institutions. Use of trade names is for identification only and does not imply endorsement by any of the groups named below.
Overview

- CVD burden
- Million Hearts® 2022
- Hypertension control resources
- Finding potentially undiagnosed hypertension
- Other resources of interest
Heart Disease and Stroke Burden

- More than **1.5 million** people in the U.S. suffer from heart attacks and strokes per year\(^1\)
- More than **800,000** deaths per year from cardiovascular disease (CVD)\(^1\)
- CVD costs the U.S. **hundreds of billions** of dollars per year\(^1\)
- CVD is the greatest contributor to racial disparities in life expectancy\(^2\)

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Heart Disease and Stroke Trends 1950-2015

Recent Patterns in Stroke Deaths

Alarming Mortality Rate Changes

County-level percent change in heart disease death rates, United States, Ages 35-64, 2010-2015

WY Mortality Rate Changes

County-level percent change in heart disease death rates, Wyoming, Ages 35-64, 2010-2015

Percent change
-10 or less (0.0%)
-10 to <-2 (0.0%)
-2 to <0 (4.3%)
0 to <2 (13.0%)
2 to <10 (52.2%)
10 or more (30.4%)
Million Hearts® 2022

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

• National initiative co-led by:
  - Centers for Disease Control and Prevention (CDC)
  - Centers for Medicare & Medicaid Services (CMS)

• Partners across federal and state agencies and private organizations
### Million Hearts® 2022 Priorities

#### Keeping People Healthy
- Reduce Sodium Intake
- Decrease Tobacco Use
- Decrease Physical Inactivity

#### Optimizing Care
- Improve ABCS*
- Increase Use of Cardiac Rehab
- Engage Patients in Heart-healthy Behaviors

#### Improving Outcomes for Priority Populations
- Blacks/African Americans with hypertension
- 35- to 64-year-olds
- People who have had a heart attack or stroke
- People with mental illness or substance use disorders who use tobacco

*Aspirin when appropriate, Blood pressure control, Cholesterol management, Smoking cessation
## Clinical Quality Measures

<table>
<thead>
<tr>
<th>Domain</th>
<th>NQF #</th>
<th>CMS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin when appropriate</td>
<td>0068</td>
<td>164</td>
</tr>
<tr>
<td>Blood pressure control</td>
<td>0018</td>
<td>165</td>
</tr>
<tr>
<td>Cholesterol management (statin use)</td>
<td>n/a</td>
<td>347</td>
</tr>
<tr>
<td>Smoking cessation (assessment and treatment)</td>
<td>0028</td>
<td>138</td>
</tr>
</tbody>
</table>

- Included in CMS Quality Payment Program/Merit-based Incentive Payment System (QPP/MIPS)
  - Cardiology
  - Internal Medicine
  - General/Family Medicine

[https://millionhearts.hhs.gov/data-reports/cqm/measures.html](https://millionhearts.hhs.gov/data-reports/cqm/measures.html)
Preventing 1 Million Heart Attacks and Strokes
Middle-aged adults are being hard hit
Heart attacks and strokes can be catastrophic, life-changing events that are all too common. Heart disease and stroke are preventable, yet they remain leading causes of death, disability, and healthcare spending in the U.S. Alarmingly, many of these events happen to adults ages 35-64—over 800,000 in 2016. Million Hearts® is a national initiative with a network of partners focused on preventing one million heart attacks, strokes, and other cardiovascular events by 2022. Coordinated actions by public health and healthcare professionals, communities, and healthcare systems can and will keep people healthy, optimize care, and improve outcomes within priority populations.

Healthcare professionals and systems can:
- Focus on the ABCs of heart health: Aspirin when appropriate, blood pressure control, cholesterol management, and smoking cessation.
- Take a team approach—use technology, standard processes, and the skills of everyone in the healthcare system to find and treat those at risk for heart disease and stroke.
- Make sure people who have had a heart attack or stroke get the care they need to recover well and reduce their risk of another event.
- Promote physical activity and healthy eating among their patients and employees.

*Death, hospitalizations, and emergency room visits due to heart attack, stroke, and other cardiovascular conditions (e.g., heart failure) that could be prevented if 1M heart attacks 2022 actions are taken.

“Million Hearts Preventable Events”

- Mutually exclusive events =

  - Treat and Release ED Events
  - Non-elective Hospitalization Events
  - Deaths

  - Heart attacks
  - Strokes
  - Symptomatic precursor conditions – TIA, angina
  - Other select acute CVD events – heart failure

ED = emergency department, TIA = transient ischemic attack, CVD = cardiovascular disease
Ritchey MD, et al. Million Hearts: Description of the National Surveillance and Modeling Methodology Used to Monitor the Number of Cardiovascular Events Prevented During 2012-2016. JAHNA. 2017;6(5).
Million Hearts-preventable event rates among adults aged ≥18 years by state, 2016

## Million Hearts® State Profile: Wyoming

### 2016 Values*

<table>
<thead>
<tr>
<th>Treat-and-Release ED Visit Rate</th>
<th>Acute Hospitalizations</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost, In US$ (2016) billions</td>
<td>Mean cost (US$) per event</td>
</tr>
<tr>
<td>194.9</td>
<td>0.04</td>
<td>15,977</td>
</tr>
</tbody>
</table>

### Estimated 2017–2021 Values Without Intervention

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.8</td>
<td>11.9</td>
<td>3.7</td>
<td>20.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*Rates are per 100,000 population; standardized, by age, to the 2012 US Census population
ED: emergency department

Blood pressure control (<140/90 mmHg) among adults aged ≥18 years with hypertension – NHANES 2015-2016

Prevalence (%)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age Group</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>48.5</td>
<td>45.2</td>
</tr>
<tr>
<td>Male</td>
<td>51.6</td>
<td>45.2</td>
</tr>
<tr>
<td>Female</td>
<td>40.0</td>
<td>45.9</td>
</tr>
<tr>
<td>18-44</td>
<td>53.8</td>
<td>50.9</td>
</tr>
<tr>
<td>45-64</td>
<td>*</td>
<td>44.3</td>
</tr>
<tr>
<td>≥65</td>
<td>*</td>
<td>38.2</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>50.9</td>
<td>44.2</td>
</tr>
<tr>
<td>Non-Hispanic black</td>
<td>50.9</td>
<td>44.2</td>
</tr>
<tr>
<td>Non-Hispanic Asian</td>
<td>40.0</td>
<td>46.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>*</td>
<td>38.2</td>
</tr>
<tr>
<td>Other</td>
<td>44.2</td>
<td>46.5</td>
</tr>
</tbody>
</table>

Key: * = p<0.05

Missed Opportunities

9.0 M not taking aspirin as recommended

40.1 M with uncontrolled HBP

39.1 M not using statins when indicated

54.1 M combustible tobacco users

+ 70.9 M who are physically inactive

213.1 M missed opportunities

55% of these opportunities are in adults aged 35–64 years

CDC Hypertension Control Champions

- Annual recognition program – [https://millionhearts.hhs.gov/partners-progress/champions/list.html](https://millionhearts.hhs.gov/partners-progress/champions/list.html)
- ≥ 80% on BP control (2018 – present)
  - ≥ 70% on BP control (2012-2017)
- 101 champions from 2012-2018
  - 34 states and D.C.
  - Treating 15 million US adults with HTN aged 18-85
- 2018 – Babson & Associates Primary Care, Cheyenne
Hypertension Control Tools
Hypertension Control Change Package

Table 1. Hypertension Control Change Package—Key Foundations (continued)

<table>
<thead>
<tr>
<th>Change Concepts</th>
<th>Change Ideas</th>
<th>Tools and Resources</th>
</tr>
</thead>
</table>
| Develop HTN control policy and procedures | - American Medical Group Foundation, Provider Toolkit to Improve Hypertension Control. BP Addressed for Every Hypertension Patient at Every Primary Care or Cardiology Visit: [http://bit.ly/1AdYh7T](http://bit.ly/1AdYh7T)  

Table 2. Hypertension Control Change Package—Population Health Management

<table>
<thead>
<tr>
<th>Change Concepts</th>
<th>Change Ideas</th>
<th>Tools and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use a Registry to Identify, Track, and Manage Patients with HTN</td>
<td>- Redwood Community Health Coalition. Hypertension Recall Instructions: see Appendix B</td>
<td></td>
</tr>
<tr>
<td>Use a defined process for outreach (e.g., via phone, mail, email, text message) to patients with uncontrolled HTN and those otherwise needing follow-up</td>
<td>- The Office of the National Coordinator for Health Information Technology. Quality Improvement in a Primary Care Practice: <a href="http://bit.ly/1gKsK2">http://bit.ly/1gKsK2</a></td>
<td></td>
</tr>
<tr>
<td>Use protocols to cover proactive outreach driven by registry use and respond to patient-submitted home BP readings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypertension Control Change Package

Table 1. Hypertension Control Change Package—Key Foundations (continued)

<table>
<thead>
<tr>
<th>Change Concepts</th>
<th>Change Ideas</th>
<th>Tools and Resources</th>
</tr>
</thead>
</table>
| Develop HTN control policy and procedures | - American Medical Group Foundation, Provider Toolkit to Address Hypertension Control. BP Addressed for Every Hypertensive Patient at Every Primary Care or Cardiology Visit: [link]
| Implement a Policy and Process to Address BP for Every Patient in HTN at Every Visit | - Kaiser Permanente. Blood Pressure Control at 120/80: [link] |
| Leverage Local Patient Centered Medical Home (PCMH) activities to help drive comprehensive approach to HTN management | - Washington State Department of Health Prevention, and Control of Chronic Disease: [link] |

Revised version coming in 2019

Change Package Format

- **Change Concept**: General notions that are useful in the development of more specific ideas for changes that lead to improvement

- **Change Idea**: Actionable, specific ideas for changing a process

- **Tools & Resources**: Can be adapted by or adopted in a health care setting
Use Practice Data To Drive Improvement
Use Practice Data To Drive Improvement

1. Determine HTN Control Metrics For The Practice
2. Regularly Provide A Dashboard With BP Goals, Metrics, And Performance
Use Practice Data To Drive Improvement

1. Determine HTN Control Metrics For The Practice

2. Regularly Provide A Dashboard With BP Goals, Metrics, And Performance

Change Concept

Change Ideas

Tools & Resources
Standardized Treatment Protocols

- [http://millionhearts.hhs.gov/resources/protocols.html](http://millionhearts.hhs.gov/resources/protocols.html)
  - Hypertension control
  - Cholesterol management
  - Tobacco assessment and treatment
- Key components, implementation guidance
- Evidence-based protocols examples
- Customizable template – HTN, Tob
- Help address disparate populations

![Diagram of treatment protocols](image)
Self-Measured Blood Pressure Monitoring (SMBP)

- Strong evidence for SMBP plus additional clinical support
  - 1:1 counseling
  - Group classes
  - Web-based or telephonic support

- Good evidence for SMBP for confirming HTN diagnosis
  - USPSTF HTN screening recs
  - 2017 ACC/AHA HTN guideline

Patient-Clinician Feedback Loop

- 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

- 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
SMBP Resources

• Guidance for clinicians on:
  o Training patients to use monitors
  o Checking home machines for accuracy
  o Suggested protocol for home monitoring
  o Cuff loaner program

• Training videos

• https://millionhearts.hhs.gov/tools-protocols/smbp.html
SMBP Resources (cont’d)

• AMA/AHA Target BP SMBP Resources – https://targetbp.org/tools-downloads/?keyword=SMBP&sort=topic&
  o Cuff loaner materials
  o Staff and patient training materials and infographics
  o CME modules

Million Hearts® SMBP Forum

- **Meets quarterly** to facilitate the exchange of SMBP best practices, tools, and resources
- Access materials via the SMBP Healthcare Community
  - Go to [www.healthcarecommunities.org](http://www.healthcarecommunities.org) and log in to your account (free to register)
  - Search for ‘SMBP’ under the ‘Available Communities’ tab
  - Click “Join Community”
- **Questions:** [MillionHeartsSMBP@nachc.org](mailto:MillionHeartsSMBP@nachc.org)
Finding Undiagnosed Hypertensives

“Hiding in Plain Sight” (HIPS)
# 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 diagnosis 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>
<td></td>
</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)*100 = 70% 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. **Search EHR data for patients that meet clinical criteria**
2. **Establish clinical criteria for potential undiagnosed HTN**
3. **Implement a plan for addressing the identified population**
4. **Compare to local, state, or national prevalence data**

**FINDING POTENTIALLY UNDIAGNOSED HTN**

HIPS in the Field

• Work with the National Association of Community Health Centers (NACHC)
• 100,000 patients from 10 FQHCs from 4 Health Center Controlled Networks – CA, KY, MO
• Clinical criteria:
  o ≥ 2 elevated BP (≥140 SBP or ≥ 90 DBP), past 12 months
  o 1 Stage 2 (≥ 160 SBP or ≥ 100 DBP), past 12 months
• Developed a change package of information on next steps and methods for scaling up
• [Link](http://mylearning.nachc.com/diweb/fs/file/id/229350)
Undiagnosed Hypertension Cohort

65.2% had a follow up visit; of these, 31.9% were dx w/HTN

Finding People Who Could Benefit from Additional Cholesterol Management

- **Clinical ASCVD** (e.g. hx of MI, stroke, TIA, PAD...)
  - Statin?
    - NO
    - YES

- **Severe Hypercholesterolemia** (LDL-C ≥190 mg/dL; dx FH)
  - Statin?
    - NO
    - YES

- **Patients with diabetes, 40-75 years** (LDL-C 70-189 mg/dL)
  - Statin?
    - NO
    - YES
Finding People Who Could Benefit from Additional Cholesterol Management

**Clinical ASCVD** (e.g. hx of MI, stroke, TIA, PAD...)

- **Statin?**
  - **NO**
  - **YES**
    - **High intensity?**
      - **NO**
      - **YES**

**Severe Hypercholesterolemia** (LDL-C ≥190 mg/dL; dx FH)

- **Statin?**
  - **NO**
  - **YES**
    - **High intensity?**
      - **NO**
      - **YES**

**Patients with diabetes, 40-75 years** (LDL-C 70-189 mg/dL)

- **Statin?**
  - **NO**
  - **YES**
    - **At least moderate intensity?**
      - **NO**
      - **YES**
Finding People Who Could Benefit from Additional Cholesterol Management

Clinical ASCVD (e.g. hx of MI, stroke, TIA, PAD...)
- Statin?
  - NO
  - YES

Severe Hypercholesterolemia (LDL-C ≥190 mg/dL; dx FH)
- Statin?
  - NO
  - YES
  - High intensity?
    - NO
    - YES

Patients with diabetes, 40-75 years (LDL-C 70-189 mg/dL)
- NO
- YES
  - At least moderate intensity?
    - NO
    - YES

NO ASCVD Risk Calculator Needed
Other Resources of Interest
Missed Opportunities

9.0 M not taking aspirin as recommended
40.1 M with uncontrolled HBP
39.1 M not using statins when indicated
54.1 M combustible tobacco users
+ 70.9 M who are physically inactive

213.1 M missed opportunities

55% of these opportunities are in adults aged 35–64 years

Cholesterol Management

- The Scoop on Statins – https://millionhearts.hhs.gov/learn-prevent/scoop-on-statins.html
- Treatment protocols – https://millionhearts.hhs.gov/tools-protocols/protocols.html#CMP
How U.S. Adults Tried to Quit Smoking

Findings from 2015

- **U.S. Adults Who Smoke Reported:**
  - 68.0% AN INTEREST IN QUITTING
  - 55.4% PAST-YEAR QUIT ATTEMPTS
  - 7.4% RECENT SUCCESSFUL CESSATION


- 57% received clinician advice to quit
- 2/3 did NOT use evidence-based cessation treatment
- Far more used medication than counseling
- < 5% used both counseling and medication
Tobacco Cessation Change Package

- Evidence- and practice-based process improvements
- Tools and resources
  - Outpatient settings
  - Inpatient settings
  - Behavioral health settings
- [https://millionhearts.hhs.gov/files/Tobacco_Cessation_Change_Pkg.pdf](https://millionhearts.hhs.gov/files/Tobacco_Cessation_Change_Pkg.pdf)
Tobacco Cessation

- Treatment protocols – [https://millionhearts.hhs.gov/tools-protocols/protocols.html#TCP](https://millionhearts.hhs.gov/tools-protocols/protocols.html#TCP)
- CDC e-cigarette info – [https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm)
  - CDC e-cigarette infographic – [https://www.cdc.gov/tobacco/basic_information/e-cigarettes/pdfs/Electronic-Cigarettes-Infographic-508.pdf](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/pdfs/Electronic-Cigarettes-Infographic-508.pdf)
Cardiac Rehabilitation Participation

- Administrative and claims data from 2016–2017
- Assessed CR participation for qualifying conditions* in 2016 among Medicare FFS beneficiaries aged ≥65 years
- 366,103 CR-eligible beneficiaries
- 24.4% of eligible beneficiaries participated in CR
  - 24.3% of CR participants had timely initiation
  - 26.9% of CR participants completed 36 sessions

*Qualifying events included: acute myocardial infarction, coronary artery bypass surgery, heart valve repair or replacement, percutaneous transluminal coronary angioplasty or coronary stenting, or heart or heart-lung transplant; stable angina and heart failure were not included in the primary analyses.

Cardiac Rehabilitation

• Million Hearts Cardiac Rehabilitation –
  https://millionhearts.hhs.gov/tools-protocols/tools/cardiac-rehabilitation.html

• Million Hearts/AACVPR Cardiac Rehabilitation Change Package (CRCP) –
  https://millionhearts.hhs.gov/files/Cardiac_Rehab_CHANGE_Pkg.pdf

• Million Hearts Cardiac Rehabilitation “Roadmap” –
  https://millionhearts.hhs.gov/partners-progress/partners/cardiac-rehab-toolkit.html

• Cardiac Rehabilitation Communications Toolkit –
  https://millionhearts.hhs.gov/partners-progress/partners/cardiac-rehab-toolkit.html
Join TAKEheart!

- AHRQ’s $6M initiative to implement referral strategies from the Million Hearts/AACVPR CRCP

- Participating hospitals will receive at no cost:
  - A high-impact, 12-month virtual training program
  - Step-by-step guidance on implementing a quality improvement approach for CR referral or advancing your current system
  - Access to leading CR experts
  - Individualized coaching and technical support
  - Peer-to-peer knowledge sharing, coaching and tools

- To apply for the TAKEheart initiative or to learn more, please visit: [https://www.aha.org/center/performance-improvement/takeheart](https://www.aha.org/center/performance-improvement/takeheart)

Application Deadline: 10/15/19
Physical Inactivity

• Subscribe to bimonthly e-Update from the Million Hearts® homepage
Questions?

Hilary Wall – hwall@cdc.gov