Million Hearts and Strategies for Improving Blood Pressure Control

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Goal: Prevent 1 million heart attacks and strokes by 2017

- US Department of Health and Human Services 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

Overview of Presentation

- Burden of cardiovascular disease
- Key components
- Strategies for Improving Blood Pressure Control
- Public/private sector support
- Resources

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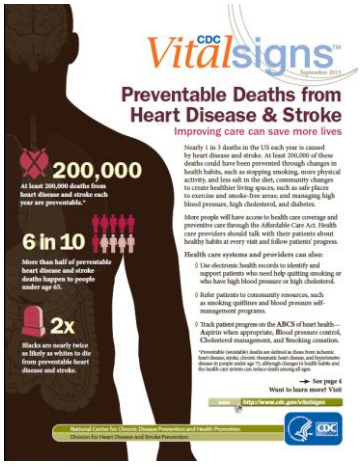
Heart Disease and Stroke
Leading Killers in the United States

- More than 1.5 million heart attacks and strokes each year
- Cause 1 of every 3 deaths
  - 800,000 deaths
  - Leading cause of preventable death in people <65
  - $315.4B in health care costs and lost productivity
- Contributor to racial disparities in life expectancy

Kochanek KD, et al. Natl Vital Stat Rep. 2011;60(3).
Go AS, et al. Circulation. 2012:e2–241
Heidenriech PA, et al. Circulation. 2011;123:933–4.
NCHS Data Breif, June 2013.

200,000 Preventable Deaths from Heart Disease and Stroke

- Many of the deaths caused by heart disease and stroke are preventable
- Preventable deaths are those attributed to lack of preventive health care or timely and effective medical care



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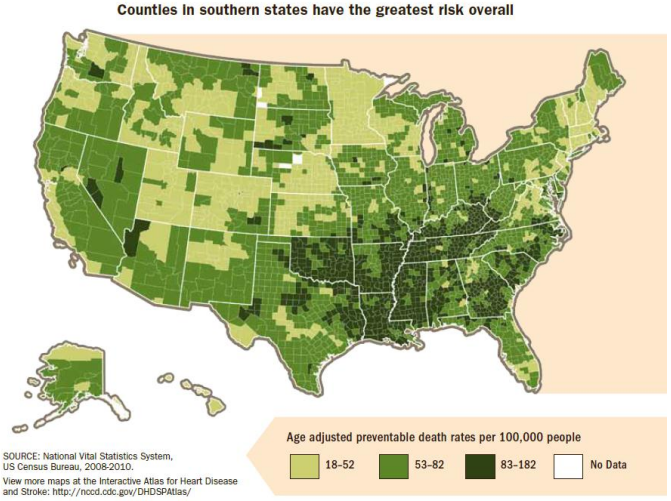
Risk of preventable death from heart disease and stroke varies by county, even within the same state



SOURCE: National Vital Statistics System, US Census Bureau, 2008-2010.
View more maps at the Interactive Atlas for Heart Disease and Stroke: http://nccd.cdc.gov/DHDSPAtlas/

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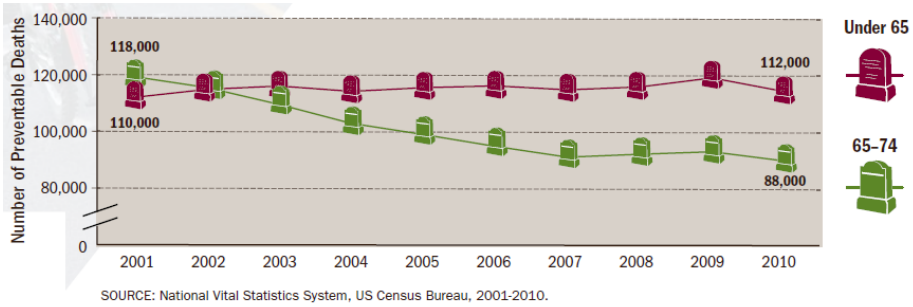
Trends in Preventable Deaths



SOURCE: National Vital Statistics System, US Census Bureau, 2001-2010.

- While the number of preventable deaths has declined in people ages 65-74, it has remained virtually unchanged in people under 65.

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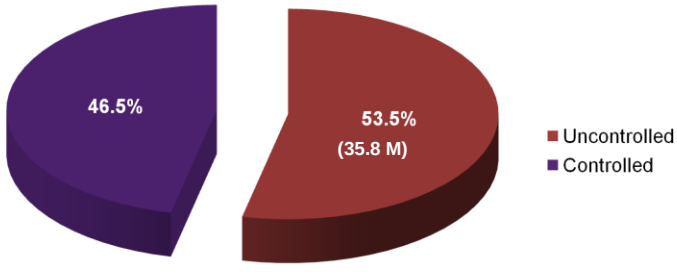
Fewer than Half of Americans with Hypertension Have It Under Control

66.9 MILLION
ADULTS WITH HYPERTENSION (30.4%)



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CDC. MMWR. 2012;61(35):703–9.

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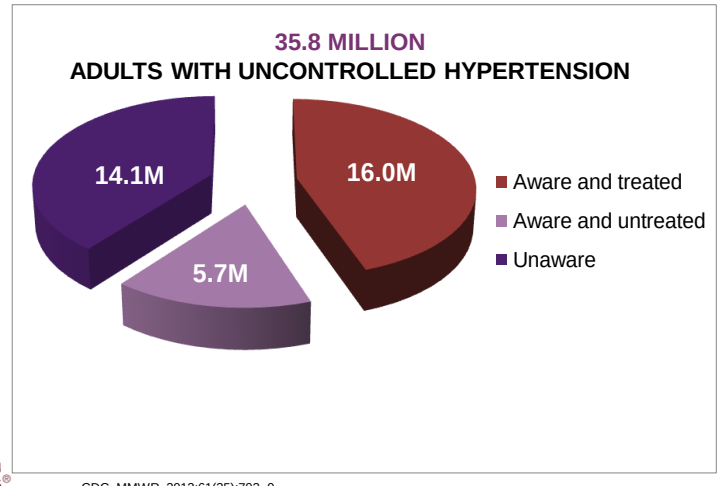
Awareness and Treatment among Adults with Uncontrolled Hypertension



CDC. MMWR. 2012;61(35):703–9.

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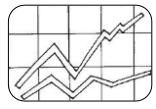
Key Components of Million Hearts®

Keeping Us Healthy
Changing the environment

Minority Health

Excelling in the ABCS
Optimizing care

Focus on the ABCS



Health tools and technology

Innovations in care delivery

Glantz. Prev Med. 2008; 47(4): 452-3.
How Tobacco Smoke Causes Disease: A Report of the Surgeon General, 2010.

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Targets for the Environment

Intervention	Baseline	2017 Target
Smoking prevalence	21%	19%
Sodium reduction	~ 3.5 g/day	20% reduction
Trans fat reduction	~ 1% of calories	50% reduction

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Targets for the ABCS

Intervention	Pre-Initiative Estimate	2017 Population-wide Goal	2017 Clinical Target
Aspirin when appropriate	47%	65%	70%
Blood pressure control	46%	65%	70%
Cholesterol management	33%	65%	70%
Smoking cessation	23%	65%	70%

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From NHANES, NAMCS, and NHAMCS

Choosing Million Hearts® Measures

- Began January 2011
- CDC, CMS, ONC
- Used existing measures initiatives
  - Meaningful Use, Physician Quality Reporting System
  - Other measures initiatives
- Chose measures that
  - Were evidence-based (and where possible NQF approved)
  - Supported the MH goals
  - Best reflected progress toward population health outcomes in reasonable timeframes

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Clinical Quality Measures (CQMs)

ABCS	Domain	Measure
A	Aspirin When Appropriate	**Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic** Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or other antithrombotic
B	Blood Pressure Screening	**Preventive Care and Screening: Screening for High Blood Pressure** Percentage of patients aged 18 and older who are screened for high blood pressure
B	Blood Pressure Control	**Hypertension: Controlling High Blood Pressure** Percentage of patients aged 18 through 85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year

CQMs (cont'd)

ABCS	Number	Measure
C	Cholesterol Management	**Preventive Care and Screening: Cholesterol – Fasting Low Density Lipoprotein (LDL) Test Performed AND Risk-Stratified Fasting LDL** Percentage of patients aged 20 through 79 years who had a fasting LDL test performed and whose risk-stratified fasting LDL is at or below the recommended LDL goal.
C	Cholesterol Management – Diabetes	**Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control in Diabetes Mellitus** Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent LDL-C level in control (less than 100 mg/dL)
C	Cholesterol Management – Ischemic Vascular Disease	**Ischemic Vascular Disease (IVD): Complete Lipid Panel and Low Density Lipoprotein (LDL-C) Control** Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) who received at least one lipid profile within 12 months and who had most recent LDL-C level in control (less than 100 mg/dL)
S	Smoking Cessation (assessment and intervention)	**Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention** Percentage of patients aged 18 years or older who were screened about tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

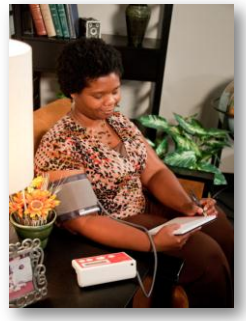
Million Hearts®: Strategies for Improving Blood Pressure Control

Self-Measured Blood Pressure Monitoring: An Emerging Public Health and Primary Care Strategy for Hypertension Management

Self-Measured Blood Pressure Monitoring (SMBP)

SMBP: the **regular** measurement of a patient's **own** blood pressure with a **personal monitor** outside a clinical setting, usually at **home**.

- Resources:
  - AHA "Call to Action": http://hyper.ahajournals.org/content/52/1/10.full
  - AHRQ review: http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?productid=941&pageaction=displayproduct
  - SMBP Guide: http://millionhearts.hhs.gov/resources/tools.html



AHRQ Review: SMBP Plus Additional Support

- July 2012 – AHRQ reviewed the effectiveness of SMBP
  - Compared SMBP alone and SMBP plus additional support to usual care

AHRQ found strong evidence that SMBP plus additional clinical support was more effective than usual care in lowering blood pressure among patients with hypertension

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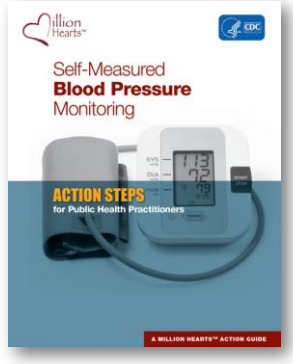
Self-Measured Blood Pressure Monitoring: Action Steps for Public Health Practitioners

- Self-measured blood pressure monitoring (SMBP) plus additional support is one strategy to lower blood pressure

- SMBP guide can be found at:

http://millionhearts.hhs.gov/resources/tools.html



How to Choose a Home BP Monitoring Device

Preferred	Not Preferred
Automated	Manual
Upper arm cuff	Wrist or finger cuff
Properly sized cuff	Cuff that is too big or too small
Accuracy checked by physician or nurse after purchase	Patient uses monitor without consulting physician
Memory storage capacity	No memory storage

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Additional Clinical Support Strategies for SMBP

- The type of additional support in the studies examined by AHRQ varied widely and fell into three main categories:

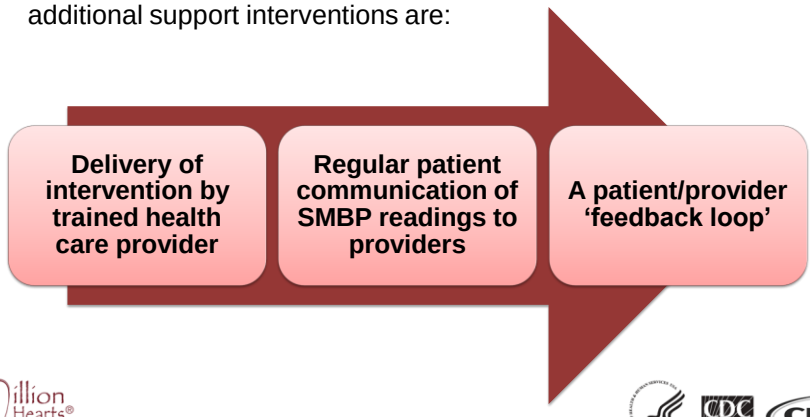
One-on-one counseling:
- **Regular telephone calls from nurses to manage blood pressure-lowering medication;**
- **In-person counseling sessions with trained community pharmacists.**

Web-based or telephonic support:
- **Interactive computer-based telephone feedback system;**
- **Secure patient website training plus pharmacist care management delivered through web communications**

Educational classes:
- **Telephone-based education by nurses on blood pressure-lowering behaviors delivered only when patients reported poor blood pressure readings;**
- **Small-group classes on SMBP technique and lifestyle changes that help lower blood pressure, taught by PAs.**

Common Elements of Successful SMBP Support

- There is a wide variety of SMBP plus additional support interventions that have successfully lowered blood pressure in patients with HTN. Common elements of successful SMBP plus additional support interventions are:



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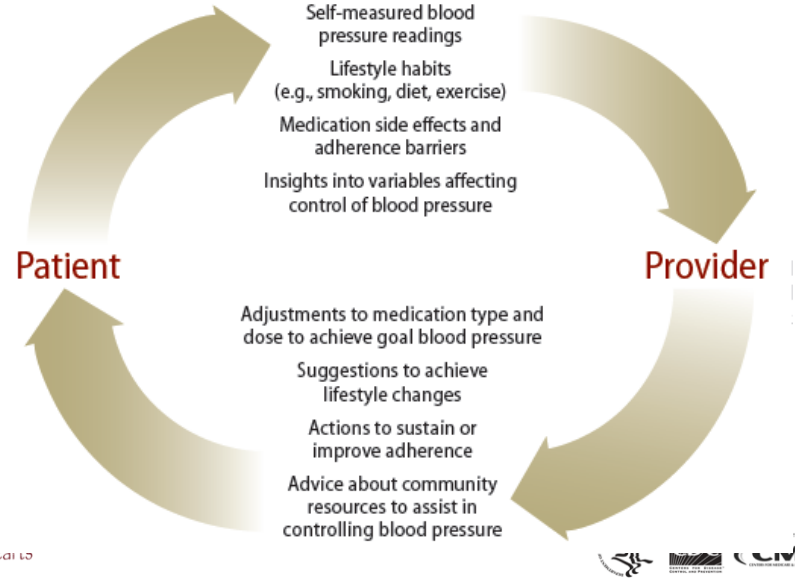

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Health Insurance Coverage for SMBP (cont'd)

Medicare Part B, (traditional fee-for-service)	Medicare Part C (Medicare Advantage)	Medicaid	Private Insurance
• Covers ABPM and physician interpretation of results for the diagnosis of white-coat HTN • Does not cover home blood pressure monitors used for SMBP.	• Not required to cover home blood pressure monitors or additional support programs, but may choose to offer these benefits.	• Coverage for home blood pressure monitors and additional support varies by state	• Decision to cover home blood pressure monitors and additional support is made by each individual plan.

- If not covered, patients can be reimbursed for monitors from a health care flexible spending account (FSA).

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EVIDENCE-BASED HYPERTENSION TREATMENT PROTOCOLS

What is a protocol?

A protocol is a evidence-based standardized approach to blood pressure treatment. They may be called algorithms, care pathways, or care plan..

- **Resources:**
  - Better Blood Pressure Control: A National Priority, CDC Expert Commentary: http://www.medscape.com/viewarticle/814350
  - AHA/ACC/CDC Joint Scientific Statement on Hypertension: http://hyper.ahajournals.org/content/early/2013/11/14/HYP.0000000000000003.full.pdf+html
  - Evidence-based treatment protocol: http://millionhearts.hhs.gov/resources/protocols.html

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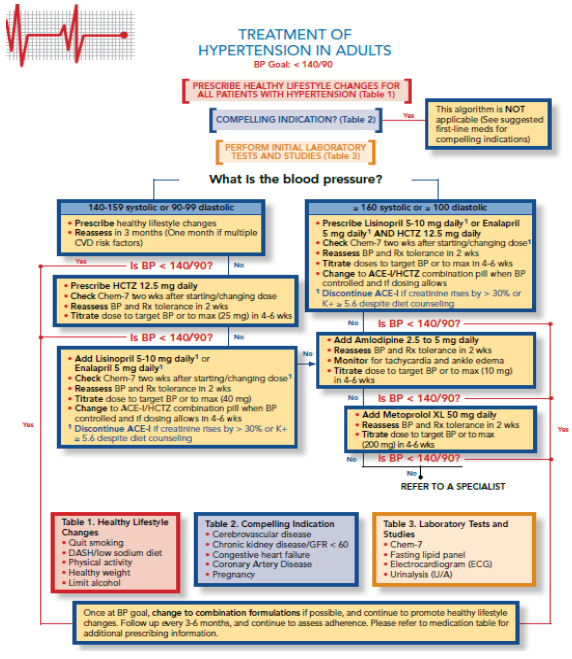

How can protocols help?

- Increasing number of providers using protocol driven care helps more Americans get their blood pressure under control.
- Protocols help improve control by:
  - Clarifying treatment options + titration intervals
  - Expanding the types of staff that can assist in timely follow-up with patients (TEAM-BASED CARE)
  - Drive quality improvement efforts (outlines process)
  - When embedded in electronic health records they can serve as a clinical decision support tool at the point of care

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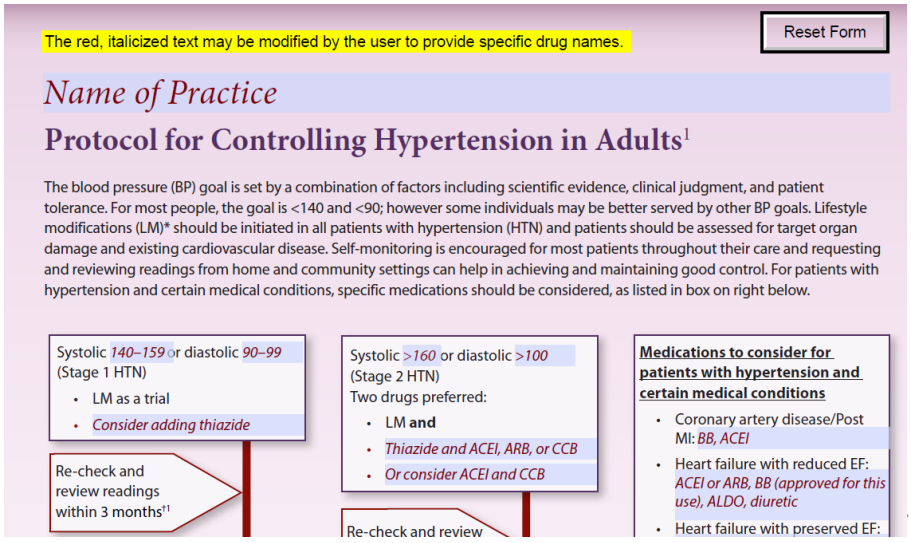
Evidence-Based Sample Protocols

- US Department of Veterans Affairs
- Kaiser Permanente
- Institute for Clinical Systems Improvement
- Health and Hospitals Corporation: NYC

*Website includes a brief description of the key components included in each protocol and the rich array of supplemental materials provided to guide control efforts

Created a modifiable template



The red, italicized text may be modified by the user to provide specific drug names.

Reset Form

Name of Practice

Protocol for Controlling Hypertension in Adults[1]

The blood pressure (BP) goal is set by a combination of factors including scientific evidence, clinical judgment, and patient tolerance. For most people, the goal is <140 and <90; however some individuals may be better served by other BP goals. Lifestyle modifications (LM)* should be initiated in all patients with hypertension (HTN) and patients should be assessed for target organ damage and existing cardiovascular disease. Self-monitoring is encouraged for most patients throughout their care and requesting and reviewing readings from home and community settings can help in achieving and maintaining good control. For patients with hypertension and certain medical conditions, specific medications should be considered, as listed in box on right below.

Systolic *140–159* or diastolic *90–99* (Stage 1 HTN)
- LM as a trial
- *Consider adding thiazide*

Re-check and review readings within 3 months†‡

Systolic *>160* or diastolic *>100* (Stage 2 HTN)
Two drugs preferred:
- LM **and**
- *Thiazide and ACEI, ARB, or CCB*
- *Or consider ACEI and CCB*

Re-check and review

Medications to consider for patients with hypertension and certain medical conditions
- Coronary artery disease/Post MI: *BB, ACEI*
- Heart failure with reduced EF: *ACEI or ARB, BB (approved for this use), ALDO, diuretic*
- Heart failure with preserved EF:

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What Can YOU Do?

- Encourage providers to implement standardized protocols
- Work with other partners to help encourage implementation of protocols and to have them embedded into EHRs
- Share what works and doesn't with us

HYPERTENSION CONTROL: ACTION STEPS FOR CLINICIANS

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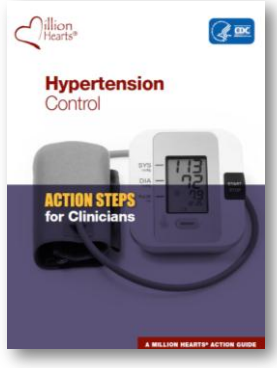
What can clinicians do?

- Evidence- and practice-based strategies for blood pressure control
- Organized into three categories: delivery system design, medication adherence, and patient reminder and supports
- Available online: http://millionhearts.hhs.gov/Docs/MH_HTN_Clinician_Guide.PDF



Example Action Steps

- Designate hypertension champions within your practice or organization.
- Assign one staff person the responsibility of managing medication refill requests.
- Generate lists of patients with hypertension who have missed recent appointments. Send phone, mail, e-mail, or text reminders.
- Encourage home blood pressure monitoring plus clinical support using automated devices with properly sized arm cuffs.

Partnerships and Support

Public Partners

- ❑ Centers for Disease Control and Prevention (co-lead)
- ❑ Centers for Medicare & Medicaid Services (co-lead)
- ❑ Agency for Community Living
- ❑ Agency for Healthcare Research and Quality
- ❑ Food and Drug Administration
- ❑ Health Resources and Services Administration
- ❑ Indian Health Service
- ❑ National Institutes of Health, National Heart Lung and Blood Institute
- ❑ National Prevention Strategy, National Quality Strategy
- ❑ Office of the National Coordinator for HIT
- ❑ Substance Abuse and Mental Health Services Administration
- ❑ Veteran's Health Administration
- ❑ State and Local governments

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Private Support

- Heath care systems
- Clinicians
- Professional organizations
- Commercial payers and purchasers
- Pharmacists/pharmacies
- Employers
- Health advocacy groups

TOOLS & RESOURCES

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Million Hearts® Resources

- Self-Measured Blood Pressure Monitoring guide
- Hypertension Treatment Protocols
- Hypertension Action Steps for Clinicians
- Grand Rounds:
  - Million Hearts® Grand Rounds
  - Hypertension Grand Rounds: Detect, Connect, and Control
- Million Hearts® E-update
- Spanish language website
- Team up. Pressure down. program
- Visit http://millionhearts.hhs.gov/ to find other useful Million Hearts® resources.

References

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- Valderrama AL, Loustalot F, Gillespie G, George MG, Schooley M, Briss P, Dube S, Jamal A, Yoon PW. Million Hearts: Strategies to Reduce the Prevalence of Leading Cardiovascular Disease Risk Factors --- United States, 2011. *MMWR*. 2011;60(36);1248-1251.

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Thank You!
Questions?