Welcome!

Today’s Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30</td>
<td>Million Hearts® Evidence-Based Strategies and Tools for Hypertension</td>
<td>Hilary Wall, MPH</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td></td>
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<tr>
<td>1:30</td>
<td>Self-measured Blood Pressure Monitoring: A Way Towards Better BP</td>
<td>Laken Barkowski, RN</td>
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<tr>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>2:30</td>
<td>Target: BP and Check. Change. Control.</td>
<td>Lori Hall, MA</td>
</tr>
<tr>
<td></td>
<td>Cholesterol – American Heart Association</td>
<td></td>
</tr>
<tr>
<td>3:00</td>
<td>Break (Snacks provided by American Heart Association)</td>
<td></td>
</tr>
<tr>
<td>3:15</td>
<td>Cardiac Ready Communities - Community Spotlight</td>
<td>Jenny Iverson</td>
</tr>
<tr>
<td>4:00</td>
<td>Engaging Patients through Lifestyle Modification</td>
<td>Jennifer Haugen, RD, CSSD, LD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chad Spradlin, MBA, PES</td>
</tr>
<tr>
<td>5:00</td>
<td>Evaluation and Wrap Up</td>
<td></td>
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</table>

Million Hearts® Evidence-Based Strategies and Tools for Hypertension Control

Hilary K. Wall, MPH
Senior Health Scientist/Million Hearts Science Lead
Centers for Disease Control and Prevention

ND 2019 Hypertension Summit
March 21, 2019
Overview

- CVD burden
- Million Hearts® 2022
- Hypertension control resources
- Finding undiagnosed hypertensives
- 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 year¹
- More than 800,000 deaths per year from cardiovascular disease (CVD)¹
- CVD costs the U.S. hundreds of billions of dollars per year¹
- CVD is the greatest contributor to racial disparities in life expectancy²

Heart Disease and Stroke Trends 1950-2015

- Graph showing trends in cardiovascular disease (CVD), coronary heart disease (CHD), and stroke from 1950 to 2015.

Recent Patterns in Stroke Deaths

- Graph showing recent trends in stroke death rates among adults aged 15 years and older in the United States, 2000-2015.
Alarming Mortality Rate Changes

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

ND Mortality Rate Changes

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

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* (Aspirin when appropriate, Blood pressure control, Cholesterol management, Smoking cessation)
- 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)

### MH 2022 Vital Signs


### Million Hearts® -preventable event rates among adults aged ≥18 years by state, 2016

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>5.4</td>
<td>30.2</td>
<td>4.5</td>
<td>40.1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Million Hearts® State Profile: North Dakota

2016 Values*

<table>
<thead>
<tr>
<th>Treat-and-Release ED Visit Rate</th>
<th>Acute Hospitalizations Mean cost (US$ per event)</th>
<th>Per-capita costs (US$)</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>162.8</td>
<td>912.4</td>
<td>0.09</td>
<td>157</td>
</tr>
</tbody>
</table>

*Rates are per 100,000 population, standardized by age, to the 2012 US Census population.

Blood Pressure Control

Blood pressure control among adults aged ≥18 years with hypertension – NHANES 2015-2016

Key: * = p<0.05

ND Self-reported HTN Awareness

Percentage of People Reporting High Blood Pressure in North Dakota

CDC Hypertension Control Champions

- Annual recognition program – https://millionhearts.hhs.gov/partners-progress/champions/list.html
- ≥70% on BP control
- 101 champions from 2012-2018
  - 34 states and D.C.
  - Treating 15 million US adults with HTN aged 18-85
- 2015 – Altru Health System, Grand Forks, North Dakota
- 2017 – Sanford Health Clinics, Bismarck, North Dakota

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
Hypertension Control Tools

Hypertension Control Change Package


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
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

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

- [https://millionhearts.hhs.gov/tools-protocols/smbp.html](https://millionhearts.hhs.gov/tools-protocols/smbp.html)

SMBP Resources

- Guidance for clinicians on:
  - Training patients to use monitors
  - Checking home machines for accuracy
  - Suggested protocol for home monitoring
  - Cuff loaner program
- Training videos
  - [https://millionhearts.hhs.gov/tools-protocols/smbp.html](https://millionhearts.hhs.gov/tools-protocols/smbp.html)

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
Finding Undiagnosed Hypertensives

“Hiding in Plain Sight” (HIPS)

- 32.1% prevalence among US adults
  - 40.5% among adults 45-64
  - 65.9% among adults 65+
  - 40.1% among non-Hispanic blacks
- 78M adults have hypertension

Uncontrolled HTN (JNC 7)

- 34.6M US Adults with uncontrolled HTN
- Awareness and treatment status:
  - 11.5M aware and treated
  - 7.0M aware and untreated
  - 16.1M “Unaware”

“Unaware” – A Closer Look (JNC 7)

- 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
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 CMS165</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>
</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

Compare to local, state, or national prevalence data

Establish clinical criteria for potential undiagnosed HTN

Search EHR data for patients that meet clinical criteria

Finding Undiagnosed Patients with HTN

Implement a plan for addressing the identified population

Are patients with hypertension being missed?

- Calculate practice prevalence
  \[
  \text{Practice Prevalence} = \frac{\text{# of adult patients with a diagnosis of HTN (e.g. ICD-10 I10)}}{\text{# of adult patients (18-85, not pregnant, no ESRD)}} \times 100
  \]
- Compare to 32.1%
- OR
- Use the Million Hearts Hypertension Prevalence Estimator Tool
  - https://nccd.cdc.gov/MillionHearts/Estimator/

Are patients with hypertension being missed?

Clinical Criteria for Undiagnosed Hypertension

- Use guidelines supported by the practice
- Consider:
  - Stages of hypertension
  - # of abnormal values
  - 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 recommendation for hypertension screening

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/R03-7/R03.0](http://www.icd10data.com/ICD10CM/Codes/R00-R99/R00-R09/R03-7/R03.0)

Implement a plan for addressing the identified population

Clinical Criteria – Sample Stepped Approach

<table>
<thead>
<tr>
<th>More liberal criteria, lower PPV</th>
<th>More conservative criteria, higher PPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2+ values ≥ 140/90</td>
<td>Fewer resources for HTN confirmation</td>
</tr>
<tr>
<td>2+ values ≥ 150/90</td>
<td></td>
</tr>
<tr>
<td>1 value ≥ 160/100</td>
<td></td>
</tr>
<tr>
<td>1 value ≥ 180/110</td>
<td></td>
</tr>
</tbody>
</table>

PPV = Positive Predictive Value

Data Exploration Case Studies

NorthShore Algorithms

Table 1. Number of At-Risk Patients Identified by Each Hypertension Screening Algorithm

<table>
<thead>
<tr>
<th>Algorithm Description</th>
<th>Number Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All patients whose 3 most recent encounters yielded a mean SBP ≥ 140 mm Hg or a mean DBP ≥ 90 mm Hg, Encounters used were within 12 months before their most recent encounter</td>
<td>732</td>
</tr>
<tr>
<td>2. All patients who had 3 encounters with a SBP ≥ 140 or DBP ≥ 90 mm Hg within 12 months before their most recent encounter</td>
<td>958</td>
</tr>
<tr>
<td>3. Patients who had a single encounter with a SBP ≥ 140 or DBP ≥ 90 mm Hg within 12 months before their most recent encounter</td>
<td>527</td>
</tr>
<tr>
<td>Unique patients identified by algorithms 1, 2, and 3</td>
<td>1,586</td>
</tr>
</tbody>
</table>

SBP = systolic blood pressure, DBP = diastolic blood pressure

Note: All data were obtained from outpatient encounters with a primary care physician or internist.

Palo Alto Medical Foundation

- 250,000 adult patients (active 2006 - 2008)
- For patients with ≥ 2 BP readings of 140/90 or higher, an antihypertensive medication prescription, or both, 37.1% did not have an ICD-9-CM code
- HTN prevalence went from 18.0% (ICD code only) to 28.7%
- Much more likely to be on an antihypertensive with a HTN diagnosis
  - 92.6% diagnosed vs 15.8% undiagnosed, P < .001

University of West Virginia

- 11 primary care centers in West Virginia
- Chronic Disease Electronic Management System (CDEMS)
- Query found 14,893 patients with:
  - ICD-9-CM code 401
  - 2 or more blood pressure readings of 140/90 or higher (n = 1076)
  - A diagnosis of essential hypertension based on free-text entries (n = 898)
- 13.3% potentially hypertensive patients overall
  - Varied across the sites from 3.6% to 47.9%

University of Wisconsin

- 14,970 patients (2008-2011)
- Clinical criteria:
  - Excluded patients with a diagnosis code or current antihypertensive Rx
  - ≥ 3 outpatient BPs from 3 separate dates, at least 30 days apart, within a 2-year period (≥140 or ≥ 90)
  - ≥ 2 elevated BPs (≥ 160 or ≥ 100), at least 30 days apart, but within a 2-year period
- After 4 years, 18–31-year-olds had a 33% slower rate of receiving a diagnosis compared to those 60+

National Association of Community Health Centers

- 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
- Developed a change package of information on next steps and methods for scaling up
  - [http://mylearning.nachc.com/diweb/fs/file/id/229350](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


Pearls from the Literature

- No one algorithm is a silver bullet
- Starting conservatively can generate numerous patients resulting in a high positive predictive value
- Undiagnosed vs. undocumented hypertension
- Much more likely to be on an antihypertensive with a HTN diagnosis
- HIPS issue can vary greatly across sites
- Could be a disparities issue, e.g. young adults

Potential Challenges

- Lack of interest or buy-in from clinic staff
  - Face validity check – HTN prevalence or patients ≥180/110
- Inadequate EHR functionality
  - Population health management software solutions
- HTN control rates will drop when potentially undiagnosed patients are identified

Data Exploration for Other Topics

78.1 M Adults Aged ≥21
Years Who Are On Or Eligible for Cholesterol-Lowering Treatment

- 13.9M Taking cholesterol-lowering medication 17.8%
- 7.5M Making lifestyle modifications 9.6%
- 29.0M Making lifestyle modifications and taking medication 37.1%
- 27.7M Reported doing neither 35.5%
HIPS – Cholesterol Management

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

On a statin?

YES

NO

On right intensity?

YES

NO

Severe Hypercholesterolemia (LDL-C ≥190 mg/dL)

On a statin?

YES

NO

On right intensity?

YES

NO

Patients with diabetes, 40-75 years

On a statin?

YES

NO

On right intensity?

YES

NO

Family hx of premature ASCVD? = FH

ASCVD = atherosclerotic cardiovascular disease; FH = familial hypercholesterolemia

Other Resources of Interest

- Physical Inactivity – https://millionhearts.hhs.gov/tools-protocols/tools/physical-activity.html
- Particle Pollution – https://millionhearts.hhs.gov/tools-protocols/tools/particle-pollution.html
- Cardiac Rehabilitation – https://millionhearts.hhs.gov/tools-protocols/tools/cardiac-rehabilitation.html

Additional Resources

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

Talk with them about self-measured blood pressure.

Finds patients with hypertension below their blood pressure.

Health and Disease
Food and Nutrition
Risk Factors & Prevention
Health and Disease
Food and Nutrition
Risk Factors & Prevention
Questions?

Hilary Wall – hwall@cdc.gov

Self-measured Blood Pressure (SMBP) Monitoring: A Way Towards Better BP Control

Laken Barkowski, RN, BSN, MSHS
Senior Program Manager of Health Systems Improvement, American Medical Association

March 21, 2019

Disclosures

• None

Objectives

• Describe the M.A.P. BP Improvement Program
• Explain the importance of measuring blood pressure (BP) accurately and the evidence for using SMBP
• Describe approaches to implementing a SMBP program
• Propose tools and resources care teams can use for effective implementation and use of SMBP
Factors Impacting Blood Pressure Control

Patient factors
- Non-adherence to treatment
- Socioeconomic determinants of health

Physician factors
- Time
- Knowledge of evidence (willingness to use)

System factors
- Quality/Performance reporting
- Work flow efficiency
- Leadership (buy-in)

M.A.P. BP Improvement Program: Measure Accurately

EVIDENCE-BASED STRATEGIES AND ACTION STEPS

1. Proper patient preparation, validated device usage and correct measurement technique
2. Proper documentation of measurements
3. Feedback and metrics to drive improvement

AVAILABLE RESOURCES
- Fact sheet
- Podcast
- Positioning poster
- Measurement proficiency tool
- Instructional decal for BP monitors
- Instructional videos

OUTCOMES
- BP control: % adults with Hypertension who have BP controlled (NQF 0018)
- Δ in SBP
- Δ in DBP

METRICS
- Terminal digit preference
- Confirmatory metric

M.A.P. Checklists

The 2015 M.A.P. checklists for improving BP control

M.A.P. BP Improvement Program

Factors Impacting Blood Pressure Control

Patient factors
- Non-adherence to treatment
- Socioeconomic determinants of health

Physician factors
- Time
- Knowledge of evidence (willingness to use)

System factors
- Quality/Performance reporting
- Work flow efficiency
- Leadership (buy-in)
M.A.P. BP Improvement Program: Act Rapidly

EVIDENCE-BASED STRATEGIES AND ACTION STEPS

1. Standardized treatment protocols to diagnose and treat high BP
2. Frequent follow up visits to reduce therapeutic inertia
3. Single-pill combination therapy to treat high BPs whenever possible
4. Patient outreach
5. Feedback and metrics to drive improvement

AVAILABLE RESOURCES

- Treatment / Management Protocols
- Clinical Inertia Chart Review

OUTCOMES

- BP control % adults with Hypertension who have BP controlled (NQF 0018)
- Δ in SBP
- Δ in DBP

METRICS

Therapeutic Inertia Index

M.A.P. Framework for BP Control

The three pillars of the program are ALL needed - each addresses a major barrier to cardiovascular disease prevention

- Measure Accurately
- Act Rapidly
- Partner with Patients

Evidence of Effectiveness of BP Improvement Program

EVIDENCE-BASED STRATEGIES AND ACTION STEPS

1. Patient self-monitoring of blood pressure
2. Counseling on non-pharmacologic lifestyle interventions
3. Collaborative communication strategies
4. Strategies to improve medication adherence
5. Feedback and metrics to drive improvement

AVAILABLE RESOURCES

- SMBP Online Program
- SMBP Instructional Video
- Infographics
- Patient Education Materials

OUTCOMES

- Δ in BP after Therapeutic Intensification (Proxy for medication adherence)
- Δ in DBP

METRICS

Δ in BP after Therapeutic Intensification (Proxy for medication adherence)
The Importance of BP Measuring Accurately

Measure Accurately to Obtain Accurate, Representative Blood Pressures

- BP variability exists in everyone and contributes to uncertainty about whether any single BP is representative of a patient's true BP.
- Uncertainty about BP is the leading reason clinicians fail to initiate and escalate therapy to patients with uncontrolled high BP.
- Conventional or routine office BP measurement correlate poorly with a patient's true BP and future cardiovascular events.
- Poorly performed BP measurements (which are very common) result in inaccurate BP readings, contributing to uncertainty and potential harm to patients over time.

How does this affect clinicians in practice?

Measuring BP Accurately

<table>
<thead>
<tr>
<th>Observer Factors</th>
<th>Patient Factors</th>
<th>System Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrong cuff size</td>
<td>Full bladder</td>
<td>Location of monitor/device</td>
</tr>
<tr>
<td>Cuff placed over clothing</td>
<td>Stimulants</td>
<td>Noise</td>
</tr>
<tr>
<td>Improper positioning</td>
<td>Recent exercise</td>
<td>Work Flows</td>
</tr>
<tr>
<td>No rest</td>
<td>Recent meal</td>
<td></td>
</tr>
<tr>
<td>Terminal digit preference</td>
<td>Talking, texting, reading</td>
<td></td>
</tr>
<tr>
<td>Talking to patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too rapid cuff deflation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
White Coat and Masked Hypertension

Almost all patients will experience some degree of alerting response

- **White coat hypertension**: Office BP is high in a patient whose out of office BP normal

But some will experience none at all…

- **Masked hypertension**: Office BP normal in a patient whose out of office BP high

Alerting Response


The Case for SMBP

Accurate, representative BP readings are needed to make sound medical decisions. SMBP readings are more likely to represent a patient’s true BP than a single office blood pressure reading.
What is SMBP?

- Patient self-measurement of their blood pressure outside of the clinical setting
- Patients receive training on how to properly self-measure from their clinical team
- Patients share these BP readings with their healthcare team

Why Use SMBP?

- Measurements are taken in the patient's usual environment
- Provides multiple BPs over a longer period of time (more representative of patient’s true BP)
- Eliminates white coat effect
- Can identify patient’s with masked hypertension

Benefits of SMBP

**SMBP improves BP control**

- There is **sufficient** evidence of the effectiveness for SMBP to improve BP when used alone (training provided for proper use and communication)
- There is **strong** evidence for the effectiveness of SMBP to improve BP when combined with additional support (i.e., patient counseling, education, or web-based support)

Benefits of SMBP

**SMBP is more predictive of cardiovascular outcomes than traditional office BPs**

1. Target organ damage
2. Risk of future cardiovascular events
3. Mortality

Benefits of SMBP

SMBP can increase precision in the diagnosis of hypertension

1. Confirming elevated office readings
2. Differentiates between white coat and sustained HTN
3. Helps to identify patients with masked HTN


Benefits of SMBP

SMBP can be used to assess BP control

1. Provides a reliable estimate of effectiveness of antihypertensive treatment
2. Assesses control at different times across a 24 hour period
3. Allows for better treatment decisions to be made in a timely fashion


Benefits of SMBP

SMBP improves adherence to therapy

1. Empowers patient to be more involved to self-manage
2. Improves medication adherence with clinical support


Implementing a SMBP Program
Implementing a SMBP program

1. Considerations before initiating a SMBP program
2. Building a SMBP program
3. Which patients benefit from SMBP
4. Training patients to properly self-measure
5. Interpreting SMBP readings

Considerations Before Initiating a SMBP Program

- Identify at least one provider and one care team member to serve as champions, these individuals will learn about SMBP and train others
- If possible, budget for 2-3 SMBP loaner devices (approximately $75) per physician.
- Plan time for:
  - Training staff on SMBP (1 hour)
  - Training patients on SMBP (5-6 minutes per patient)
  - Ensuring device accuracy, if the patient is using their own device (approximately 5 minutes)
  - Averaging and documenting patient’s SMBP readings (5 minutes)
  - Preparing the device for the next patient, if implementing a loaner program (5 minutes)

Considerations Before Initiating an SMBP Program

Design processes to include:
- How will patients be identified as candidates for SMBP?
- Who will train the patients on proper self-measurement?
- How will you get the readings (and the device, if using a loaner program) back from the patient? Is an appointment required? With who?
- Who will be responsible for averaging, documenting and notifying the healthcare provider of the SMBP average?
- How will follow-up occur?

For organizations developing a loaner program:
- Who will be responsible for disinfecting the returned loaner devices?
- Where will the loaner devices be stored? (clean and dirty storage needed)
**Building a SMBP Program**

**Loaner vs patient owned devices**
- Patients with HTN should be encouraged to purchase their own SMBP device
- If possible, patients without a confirmed diagnosis of hypertension or who cannot afford their own device should be offered a loaner device

**Inventory management**
**Loaner agreement**

**Recommending devices for purchase**
- Recommend/choose a validated, automated upper arm BP device (preferably with memory and averaging)
  - Do not recommend/use a wrist cuff (unless brachial readings impossible)
  - Finger devices should never be used

**Appropriate fitting cuff is essential**
- Train staff to measure patient’s arm to ensure accurate cuff size is purchased/used
- While the patient is standing, measure from the acromion process of the scapula to the olecranon process at the elbow
- Note the midpoint and measure the circumference of the arm at the midpoint

*Photo courtesy of National Health and Nutrition Examination Survey (NHANES) Physician Examination Manual September 2011*
Building a SMBP program

Checking a home BP device for accuracy in a patient

Even a device that has passed an accepted validation test may not provide accurate readings in every patient – and may not be properly sized

- Every SMBP device must be tested in the office for accuracy in the individual using it.
- The device is brought in and multiple readings are taken using the office standard method of testing and alternated with the patient self-measuring on their device. The readings are then compared. If the difference between devices is >10 mmHg the device should be replaced.
- Accuracy checks should be done after purchase and then annually.

Device Accuracy Testing

Which Patients Benefit From SMBP?

- Patients without a diagnosis of HTN:
  - Patients with high office BPs who are suspected of having HTN (to make Dx)
  - Suspected white coat hypertension
  - Suspected masked hypertension

- Patients with a diagnosis of HTN
  - Any patient- increase engagement, adherence to treatment or improve BP control
  - To assess treatment effect on BP control
  - Difficult to control BPs to determine if treatment resistant HTN is present
Training Patients to Properly Self-measure

- Find out what they know about SMBP and if they have any concerns about it
- Provide general information about hypertension
- Tell them how often and when to measure
  - Two sets of measurements twice a day
  - One set in the morning and one in the evening, preferably before taking antihypertensive medications
  - Each set consists of two measurements performed one minute apart
  - This should be done for seven consecutive days (minimum of three days or 12 readings)

Training Patients to Properly Self-measure

- Teach them how to prepare themselves for the measurement
  - Avoid caffeine, exercise and smoking for 30 minutes before the measurement
  - Empty bladder, if needed, then rest for 5 minutes sitting comfortably
- Show them how to use the device and properly put the BP cuff on their designated BP arm
- Tell them how to position themselves during the measurement
  - Sit with back supported, legs uncrossed and feet flat on the floor
  - Rest arm on a firm, flat surface with the cuff at the level of the heart with palm facing up
  - No talking, reading, texting or watching TV during the measurement

Training Patients to Properly Self-measure

- Show them how to document their BP immediately after each reading
- Provide instructions on what to do if their BP is too high, too low or if they are experiencing associated symptoms
- Tell them how to communicate their results back to the practice after the week is complete
- Use teach back and return demonstration to ensure patient understanding
**Patient Training Tools**

**What is SMBP?**

Self-measured blood pressure (SMBP) is when you measure your blood pressure outside of the doctor’s office or other healthcare settings.

**Obtaining and Interpreting Results**

- Have patients provide you with all the readings they took over the week. This can be done via:
  - Telephone
  - Secure fax
  - Online through secure patient portal or telemedicine website
  - Bring device to the office for staff to review measurements or download if measurement storage is available
  - Follow-up office visit
Average, Document and Relay Readings

- Average readings into a single systolic and single diastolic BP
- Document average
- Relay readings to provider for interpretation

Interpreting SMBP Results

Based on JNC-7 definitions

Based on 2017 ACC/AHA definitions

Providing Clinical Support
Key Elements of Clinical Support

When added to SMBP, additional clinical support strengthens its utility and effectiveness

1. Delivery of the additional support must involve a trained clinician (e.g., physician, NP, PA, RN, MA, pharmacist or other health educator)

2. Regular communication of SMBP data to care team

3. A feedback loop between patient and care team in which support and advice are customized based on the patient’s reported information

Examples of Clinical Support

One-on-one counseling
- Telephone calls from RNs or pharmacists to manage medications
- Counseling sessions in person with pharmacists

Web-based or telephone support based on patient-reported SMBP readings
- Computer telephone-based feedback system
- Secure patient website training plus pharmacist care management via web communication
- Access to web-based tools for medication requests, text and e-mail reminders to measure BP or for appointments, secure messaging with clinician or staff

Patient Education
- RNs providing telephone-based education on lifestyle changes to lower BP
- Small group classes on SMBP technique and lifestyle changes in the clinical or community setting

Common Questions

Recommend:
- a validated*, fully automatic upper arm cuff
- a device with memory whenever possible
- device that meets patient specific needs-large display

Do not recommend:
- a finger or wrist cuff - except in cases where arm circumference >52 cm (then recommend wrist cuff)

Remember:
- Appropriate sized cuffs must used for BP measurements to be accurate. Always measure the patient’s arm before recommending any device.

*Validated does not mean that a device will be accurate for every patient. Make sure your patients bring in devices to be tested for accuracy

### Do Insurance Companies Pay for Devices?

- Some do – many do not
- In some States Medicaid pays for devices and some private payers reimburse
- Have the patient call their insurer to find out

### What if a Patient Cannot Afford a Device?

- Consider a loaner program if appropriate
- Contact a manufacture for discounts online or coupons
- 80% of devices in the US are purchased at retail pharmacies – check for coupons
- Many validated upper arm devices can be found for under $40
- Avoid extra memory, Bluetooth and other bells and whistles which can be costly

### How Reliable Are Patient’s Recordings of Their SMBP?

- According to peer reviewed literature – patients falsify their readings up to 21-33% of the time in some studies
- It is better to use memory, whenever possible, for this reason
- When in doubt, consider 24 hour ABPM

### Do SMBP Readings Count Towards Performance Measures?

- Up until this year, self-measured BPs have been excluded from quality measures. The 2019 HEDIS measure for controlling BP does allow for them if they have been electronically stored and transmitted to the provider.
- Because SMBPs are not currently accepted in quality measures, high office BPs in patients who are controlled at home will not count as controlled if the office BP is above goal.
- This may creates a disincentive to use SMBP, in spite of the fact that it is better for patient care
- The AMA, AHA, CDC, Million Hearts and several organizations are working to solve this problem
What is the Best Protocol to Use to Measure?

• There is no one protocol that is the standard—there are many guidelines.

• Overall, these guidelines agree that the mean of two BPs in the AM and PM for 1 week is preferred.

• A minimum of three days is acceptable if you obtain 12 measurements.

Final Reminder

Prior to initiating SMBP, always make sure:

1) The SMBP cuff is sized correctly and the device reads accurately in the INDIVIDUAL prior to relying on the SMBP measurements to make clinical decisions.

2) Patients are trained on how to properly self-measure.

3) There is a clearly defined individualized plan between the patient and the clinical team.

4) Patients must know exactly what to do if their BP is:
   - Too high, too low, or if they are having warning symptoms.

4) A shared care plan can be used to help patients know:
   - When and how often to communicate with or return to the office for follow-up.
   - How to communicate BPs back to the care team.

SMBP Training Video

https://targetbp.org/tools_downloads/self-measured-blood-pressure-video/

Targetbp.org
Questions?

Outpatient Initiatives to help you and your patients:

**Target: BP**
and

**Check. Change. Control. - Cholesterol**

North Dakota Hypertension Summit
March 21, 2019

Contact

Laken Barkowski, RN, BSN, MSHS
laken.barkowski@ama-assn.org

PRESENTERS AND AGENDA

- Mindy Cook, RN, BSN - Sr. Director, Quality & Systems Improvement
- Lori Hall, MA – VP, Community Impact & Rural Health

- Why Focus on Hypertension and High Cholesterol?
- Target: BP and Check. Change. Control. - Cholesterol — What are they?
- Getting to Improvement – The M.A.P. Process
- Registration and Data Submission
- Recognition
- Tools and Resources
The American Heart Association & American College of Cardiology updated the guidelines for hypertension control - November 2017

Notably, the guidelines eliminate the diagnosis of pre-hypertension and identifies anything greater than 130 or 80 as Stage 1 hypertension.

103 million people have HBP – almost 50%

Heart disease and stroke risk is doubled at 130/80 compared to blood pressure below 120/80.

Of adults with hypertension: **46%** are uncontrolled

Most adults with uncontrolled HTN have health insurance and a usual source of care

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**What is Target: BP?**

- **A call to action** motivating health systems, clinics, and providers to prioritize blood pressure control
- **Recognition** for healthcare providers who attain high levels of blood pressure control in their patient populations
- **A source** for tools and assets for healthcare providers to use in practice, including the AHA/ACC/CDC Hypertension Treatment Algorithm and the AMA’s M.A.P. Checklist

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**Who is our Target Audience?**

- **Primary Care System** – Focus on underserved patients
  - Federally Qualified Health Centers (FQHCs)
  - Practice/Clinic with mission to serve publicly insured, underinsured, or uninsured (Community Health Centers)
  - Private Clinical System (non-FQHC)

- **Government Agency or Organization** providing care to patients

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http://targetbp.org/
Why should a clinic participate?

- Systems are needed to drive control rates
- Helps clinics meet required performance metrics
- Alignment with AHA and AMA, nationally-recognized leaders
- Free tools and resources
- Free webinars and CME/CEU opportunities
- Recognition from the AHA
- **Improved health and care of patients!**

http://targetbp.org/

GETTING TO IMPROVEMENT
THE M.A.P. PROCESS

The M.A.P. framework

- Measure blood pressure accurately
- Act rapidly to manage uncontrolled hypertension
- Partner with patients, families and communities to promote self-management

- Actionable data
- Evidence-based tools
- Team-based Care

2017 ACC/AHA/ABC/ACPM/AGS/APHA/ASH/ASPC/NMA/PCNA
Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults

A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines

WRITING COMMITTEE MEMBERS
Paul K. Whelton, MB, MD, MSc, FACC, CoP
Robert M. Carey, MD, FACC, Vice Chair
RESOURCES—WEBSITE – WWW.TARGETBP.ORG

Patient education tools
Provider education tools
Webinars – CME/CEU courses
E-newsletter

RESOURCES—WEBINARS

- Lifestyle Interventions for the Prevention and Treatment of Hypertension (CME/CE)
- Importance of Measuring Blood Pressure Accurately (CME/CE)
- Importance of Treating Your Patients’ HBP (CME/CE)
- Using Self-Measured BP Monitoring to Diagnose and Manage HBP (CME/CE)
RESOURCES – PATIENT

REGISTRATION AND DATA SUBMISSION

REGISTER AT:
WWW.TARGETBP.ORG

REGISTRATION – INFO NEEDED

ORGANIZATION’S CONTACT INFORMATION

ORGANIZATION’S TOTAL ADULT (18-85 YEARS) PATIENT POPULATION

% PATIENTS THAT ARE A RACE/ETHNICITY OTHER THAN WHITE AND/OR IDENTIFY AS HISPANIC OR LATINO ETHNICITY (ESTIMATE OK)

TOTAL NUMBER OF CLINIC LOCATIONS IN HEALTH SYSTEM (NOTE: MAY REGISTER EACH HEALTH CENTER LOCATION INDIVIDUALLY OR AS A SYSTEM OVERALL)

ORGANIZATION’S CHARACTERISTICS, SUCH AS MULTI-SPECIALTY, FEDERALLY QUALIFIED HEALTH CENTER, ETC.

PREVIEW REGISTRATION FORM
DATA SUBMISSION – FEB. 2-MAY 31!

DATA NEEDED:
ADULT PATIENT POPULATION (PROVIDED AT REGISTRATION)
TOTAL ADULT PATIENTS WITH HYPERTENSION
HYPERTENSIVE PATIENTS WITH HBP UNDER CONTROL

PREVALENCE ESTIMATOR:
ADULT PATIENT POPULATION BY AGE, SEX, AND ETHNICITY

Data Submission
The data submission process should be as seamless as possible. Evaluation data include:
- Total adult patient population
- Total adult patient population by age, sex, and ethnicity
- Total number of adult patients with controlled hypertension
- Total number of adult patients with controlled hypertension

Organizations will submit 2019 data in early 2019. Participants will be notified of recognition status in Fall 2019.

CLICK ON DATA COLLECTION WORKSHEET

REGISTRATION AND DATA SUBMISSION TIMELINE

January 2019: New TBP/CCCC portal will open
February 2019: Portal will open for data submission
May 31, 2019: Deadline to submit data for 2019 recognition
Awards will be announced in early FY20

Existing organization accounts will be created automatically
2019 RECOGNITION LEVELS

PARTICIPATION STATUS
Recognizes practices that have submitted data and connected to reducing the number of adult patients with uncontrolled blood pressure.

GOLD STATUS
Recognizes practices that have 70 percent or more of their adult patient population with high blood pressure controlled.

NQF Measure #18 defines HTN as >140/90

2019 RECOGNITION LEVELS

RECOGNITION RESOURCES

Your download includes:

Recognition Resources

Check. Change. Control. Cholesterol

WHY IS CHOLESTEROL MANAGEMENT IMPORTANT?

• HIGH CHOLESTEROL IS A MAJOR RISK FACTOR FOR HEART DISEASE AND STROKE
• NEARLY 1 IN 3 AMERICAN ADULTS HAVE HIGH LDL (“BAD”) CHOLESTEROL
• 40% OF AMERICANS HAVE HIGH CHOLESTEROL (OVER 200 MG/DL) – OVER 94 MILLION PEOPLE
ND GWTG Stroke – Medical History of LDL > 100
Percent of Ischemic stroke or TIA patients with LDL >= 100 or on cholesterol-reducer prior to admission, who are discharged on cholesterol reducing drugs.

ND GWTG Stroke - Statin Prescribed at Discharge
Percent of Ischemic stroke or TIA who are discharged on Statin Medication.

Updated Cholesterol Guidelines
November 2018:

- Emphasis on lifetime risk - high cholesterol at any age can increase risk
- Healthy lifestyle remains critical component to prevent and treat high cholesterol
- More personalized risk assessments and tailored treatment options for high LDL
- For adults age 20 and older, without cardiovascular disease and not on lipid lowering therapy, either a fasting or non-fasting lipid profile is effective

What’s new?

- In some cases, a coronary artery calcium (CAC) test can help health care providers decide whether to start statin therapy when a person’s risk may not be clear
- If a person has problems taking a statin or if a statin alone isn’t sufficiently lowering LDL cholesterol, there are some additional drug options
- Importance of patient/provider discussion to make a lifestyle and medication treatment plan that the individual can follow to reduce risk
What did not change?

The 2018 guidelines did not make any major changes to, and continue to support, the AHA’s current healthy lifestyle recommendations.

Check. Change. Control. Cholesterol™

• Improve awareness, detection and management of high cholesterol
• Educate and empower consumers and patients
• Provide healthcare providers with evidence-based information, tools, and recognition

Web site:
www.heart.org/changecholesterol
For Patients & Consumers

- My Cholesterol Guide
- Check. Change. Control. Calculator
- Cholesterol Animation Library
- Downloadable Sheets
- Cholesterol Podcasts
- Cholesterol Videos
- All of the above and more at www.heart.org/cholesterol

For Professionals

- Healthcare Provider Toolkit
- Risk Calculator
- Guidelines on the Go App
- Podcasts
- CME/CE courses
- All of the above and more at Professional Heart Daily www.professional.heart.org/cholesterol

Registration and Data Submission

CCCC Recognition Program

National and local recognition for practices and health systems that:

- Register with the program
- Commit to using an ASCVD risk calculator
- Submit adult patient data
- Reach defined recognition levels

Atherosclerotic Cardiovascular Disease (ASCVD) includes several conditions that are caused by the buildup of plaque that narrows blood vessels and can cause cardiovascular diseases.
REGISTRATION REQUIREMENTS

TO REGISTER, ORGANIZATIONS NEED:

• The total adult (21-75 years) patient population count
• The total number of clinical providers in the organization
• Percentage of patients that identify as:
  • Race other than White and/or
  • Ethnicity: Hispanic or Latino
• The total number of clinical locations in their health system
• Organization’s Electronic Health Record (EHR) system

http://www.heart.org/changecholesterol

2019 RECOGNITION LEVELS

No changes have been made to the recognition levels.

2019 REGISTRATION AND DATA SUBMISSION TIMELINE

Enrollment is open
February 2019: New portal open for data submission and commitment to use ASCVD risk calculator
May 31, 2019: Deadline to submit data for recognition
Awards will be announced in early FY20

QUESTIONS?

PLEASE COMPLETE THE INTEREST QUESTIONNAIRE IN YOUR FOLDER.

LORI HALL
LORI.HALL@HEART.ORG – 734-646-9330

MINDY COOK
MINDY.COOK@HEART.ORG - 218-770-3305

THANK YOU!!
2019 Hypertension Summit

BREAK TIME!
Snacks, Networking and Self-Care

DISCLOSURES
- I have no financial disclosures
- I have no conflicts of interest

OBJECTIVES
- Understand how the Cardiac Ready Community program started and the main goals of the program
- Understand what it means to become a Cardiac Ready Community
- Know the steps your community can take to become designated as a Cardiac Ready Community
CARDIAC READY COMMUNITY GOAL

- Designed: to promote survival from a cardiac event, such as sudden cardiac arrest (SCA) which occurs outside of the hospital setting
- Goal: prepare community to respond and assist appropriately when an individual has a cardiac event
- Community will be able to:
  - Recognize a cardiac emergency
  - How/when to dial 9-1-1
  - Begin CPR
  - Have public access to Automated External Defibrillators (AEDs)

WHY IS THIS IMPORTANT?

- Heart disease is currently the leading cause of death in North Dakota and the United States
- OHCA survival less than 11%
- Bismarck/Mandan: OHCA occurs:
  - 72% Home
  - 17% Healthcare Facility
  - 11% Public location

WHY THIS IS IMPORTANT

- Time is muscle!
- For every minute without life-saving CPR and defibrillation, chances of survival decrease 7-10%

Time is Critical!

- Brain damage begins in 4-6 min
- Brain damage irreversible in 8-10 min
- Circulation must be restored within 4-6 minutes.

THIS PROGRAM WILL HELP TO INCREASE PUBLIC AWARENESS

Slightly more than half of Americans (54%) say they know how to perform CPR.

CARDIAC ARREST VS. HEART ATTACK
HANDS ONLY CPR & AED USE

Triples Survival Chances

Communities have to be willing to respond

Education key

CRITERIA

Community Leadership

- Various lead stakeholders i.e. city officials, clinic personnel, EMS personnel, school board members etc.
- Goal is complete community involvement! All aspects of the community have to work together to prepare community members to respond.
- Each life lost has an impact on the whole community – families, friends, social groups, jobs – we are all interconnected.

On Going Community Awareness Campaign

- Educate community with flyers, newspapers, verbal education, social media pages etc.
- Get creative!

AMERICAN HEART ASSOCIATION CHAIN OF SURVIVAL

- Criteria supports the AHA Chain of Survival:
  - Immediate recognition of cardiac arrest and activation of the emergency response system
  - Early CPR with an emphasis on high quality chest compressions
  - Rapid defibrillation
  - Effective basic life support with advanced life support intercept
  - Integrated post-cardiac arrest care

Chain of Survival Components:

- Recognize Cardiac Arrest or Heart Attack
- Perform Early CPR
- Rapid Use of an AED
- Advanced Emergency Care
- Coordinated Hospital Care
COMMUNITY BLOOD PRESSURE CHECKS

- Blood pressure screenings can be held during community events, health fairs, clinic visits etc.
- Educate on their numbers and refer hypertensive patients
- Keep track of how many community members have been screened!

NORMAL BLOOD PRESSURE
- Recommendations: Healthy lifestyle choices and yearly checks.

ELEVATED BLOOD PRESSURE
- Recommendations: Healthy lifestyle changes, reassessed in 3-6 months.

HIGH BLOOD PRESSURE / STAGE 1
- Recommendations: 10-year heart disease and stroke risk assessment. If less than 10% risk, lifestyle changes, reassessed in 3-6 months. If higher, lifestyle changes and medication with monthly follow-ups until BP is controlled.

HIGH BLOOD PRESSURE / STAGE 2
- Recommendations: Lifestyle changes and 2 different classes of medicine, with monthly follow-ups until BP is controlled.

CPR/AED TRAINING

- Hands only CPR training done by certified CPR instructor
- Can be done during community events (half time of sporting events), high schools, shopping malls
- Keep track of how many community members are CPR and AED trained

LEARN CPR • GET THE APP • SAVE A LIFE

PULSEPOINT: BISMARCK FARGO

Bystander CPR in Arizona (2001 to 2010)
All out-of-hospital cardiac arrests

- CPR
- CPR
- CPR
PUBLIC ACCESS AED

- Can take the longest in order to fund for AEDs
- Educate community on what AEDs do, how to use them and where they are located
- Place in public places and high traffic areas
- Bismarck/Mandan and Fargo – PulsePoint
  - Over 200 AEDs registered in the community

CURRENT CARDIAC READY COMMUNITIES

- 10 communities are designated as Cardiac Ready Communities
- 25 communities are working towards becoming designated

DESIGNATION

- Once a community has met the minimum set of criteria, they apply for designation
- Once approved through the ND Department of Health, they are given a 3 year Cardiac Ready Community designation
- Highway sign provided to each community designated to display
AED GRANT UPDATE

- With a Grant received by the American Heart Association, the Division of Emergency Medical Systems was able to purchase a number of AEDs.
- All communities participating in the Cardiac Ready Community program were eligible to apply for the AEDs. These will be distributed in the near future.
- Could be the last step for several communities to become designated.

FUTURE OUTLOOK

- Cardiac Ready Campus
  - Currently working on creating criteria for Cardiac Ready Campus
  - May help lead to Cardiac Ready Community
  - UND already working on designation
  - Will have more information as it becomes available
  - Looking into incorporating other initiatives such as Stop the Bleed

EDUCATION

- EMS Rendezvous
  - April 11-13, 2019
  - Bismarck, ND
- State Stroke and Cardiac Conference
  - October 29-30, 2019
  - Bismarck, ND
- State Trauma Conference
  - September 25-26, 2019
  - Bismarck, ND

QUESTIONS?

Danielle Schoch
dschoch@nd.gov
701-328-4577
2019 Hypertension Summit
March 21, 2019

Learning Objectives

1. Participants will be able to link leading causes of death to lifestyle behaviors.
2. Participants will be able to define the 6 stages of change.
3. Participants will learn coaching strategies to help motivate patients to make lifestyle change.
4. Participants will be able to identify partners in their community and/or health system to support patients lifestyle change goals.

Top 2 Leading Causes of Death in the United States

1. Heart Disease
   - Healthy People 2020 identifies the leading (controllable) risk factors for heart disease and stroke are:
     - High blood pressure
     - High cholesterol
     - Cigarette smoking
     - Diabetes
     - Unhealthy diet and physical inactivity
     - Overweight and obesity

2. Cancer - 25% of all deaths in US
   - 70% of lung cancer deaths are related to combination of low f/v intake, physical inactivity, tobacco use, exposure to environmental tobacco, air pollution

No Disclosures
According to the CDC, about 20% to about 40% of deaths from each of these causes (top 5) could be prevented through lifestyle changes such as avoiding tobacco, increasing physical activity and healthier eating.

The report, published in the May 2, 2014 issue of Morbidity and Mortality Weekly Report, compared the death rates from these causes in all 50 states from 2008-2010. The analysis showed if all states had the lowest death rate for each cause, it would be possible to prevent:

- 21% of early cancer deaths, prolonging about 84,500 lives
- 34% of early heart disease deaths, prolonging about 92,000 lives
- 39% of early chronic lower respiratory disease deaths, prolonging about 29,000 lives
- 33% of early stroke deaths, prolonging about 17,000 lives
- 39% of unintentional injury deaths, prolonging about 37,000 lives

Weight loss (as result of lifestyle changes) of 5-10% produced improvements in cardiovascular risk factors, but greater weight losses were associated with even greater improvement. – NHLBI

How can we engage our patients in lifestyle modifications to help prevent and control disease?

Demographics

Food security

Resources and access to resources
- Fitness center
- Grocery store/food bank
- Clinic
- Technology
- Health insurance

Support system (family, friends)

Stages of Change

- Pre-contemplation-No intention
- Contemplation-Change on horizon, 6 months
- Preparation-Getting ready – next 30 days
- Action-Consistently changed, within 6 months
- Maintenance-Staying there more than 6 months
- Relapse – Recycling

How well do you know your patient?

Demographics

Food security

Resources and access to resources
- Fitness center
- Grocery store/food bank
- Clinic
- Technology
- Health insurance

Support system (family, friends)
Meet at patients place of readiness
What are your thoughts about?

Let's role play
Partner up and have something about yourself that you:
• Want to change
• Need to change
• Should change
• Have been thinking about changing

What change are they considering?
• Explain why they should make this change
• Give at least three specific benefits that would result from making the change
• Tell them how they could make the change
• Emphasize how important it is to change
• Persuade them to make the change
• If you meet resistance, repeat the above

Feedback
• What was the experience like?
• What did you like?
• What did you not like?
• What did you notice?
• Did you feel encouraged to make the change?
“People tend to resist that which is forced upon them”

“People tend to support what which they helped create”

- Vince Pfaff

Motivational Interviewing
a directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence.

What makes MI Successful

**Relational aspect**
- Ambivalence is resolved through empathy and a spirit that instills capability

**Technical aspect**
- Ambivalence is resolved through the selective reinforcement of a client’s thoughts and commitment for change

http://www.youtube.com/watch?v=cDDWvj_q-o8
**Role Play**

Share something about yourself that you:
- Want to change
- Need to change
- Should change
- Have been thinking about changing but haven’t changed yet

In other words, share something that you’re feeling ambivalent about.

**Listener**

- Listen carefully with a goal of understanding
- Give no advice
- Ask these open questions and listen with interest
  - Why would you want to make this change?
  - How might you go about it, in order to succeed?
  - What are the three best reasons to do it?
- Give a short summary/reflection of the speaker’s motivations for change
- Then ask: “So what do you think you’ll do?” and just listen

**Feedback**

- What was the experience like?
- What did you like?
- What did you not like?
- What did you notice?
- Did you feel encouraged to make the change?

**Process of MI**

- Engage- Establish a connection, explore strengths and values
- Focusing- Develop a direction that the client chooses
- Evoking- Eliciting patients motivations for change
- Planning- Formulating a specific plan of action, only when the patient is ready
### Yes, but... Lifestyle Change is Hard.

**Addressing patient one liners.**

- It’s winter and fruits and vegetables aren’t good in ND
- It have knee problems (or insert other) and can’t exercise.
- I don’t like to sweat.
- My husband is the cook and I have to eat what he makes.
- Eating healthy is expensive.
- I already know what to do... (exercise, diet) but just don’t do it.

### What do patients ask for?

- **Accountability**
- **Why’s behind change (you are the expert)**
- **Ideas (meal plan, how to begin with exercise)**
- **Help to identify realistic short term, medium term and long term goals**

### Addressing and eliminating barriers

**Identify potential barriers**

- **Cost**
  - Grants/Scholarships
  - Food security
  - Community based programs (high reach low cost)
- **Demographic Location**
  - School/armory to walk
  - At home Exercise equipment
  - Garden produce

Know your partners/resources and when to refer out

### Real Life Example 1

Betty referred to weight management clinic by cardiology for weight loss prior to procedure. Goal to lose 50 lbs.

- **Stats:** BMI = 62.65, A Fib needing ablation procedure.
- **Barriers:** Limited finances due to medical bills, lives in rural area, limited exercise tolerance
- **Currently:** on a low carb diet because family member was on it and seeing success. Reports feeling tired and joint pain.
- **Plan:** Start with dietitian – met initially. Decided to journal her food, “move more” and increase F/V intake. Focus on what she can do versus what she cannot.
...3 months later

Betty has lost 37 lbs on way to 50 lbs goal! Current BMI 57.54.
Patient reports not taking naps during the day due to more energy
Joint pain is resolved
Following a balanced calorie controlled plan
Follow up for accountability every 2 weeks where strategies for behavior change are reviewed

Real Life Example 2

Bob is in his 70's. Lives alone. Vision impairment but active. Main goal is to lower glucose to prevent diabetes. Weight loss goal of 20 lbs.

Enters our clinic for biometric screenings glucose primarily. Knows that he was able to reduce sugars and cholesterol when he lost weight in the past.

Stats: weight 211.5 lbs; glucose 121.

Barriers – dislikes cooking, financial concerns.

Met with Health and Wellness Coach for baseline biometric screening.

Met with a Registered Dietitian to discuss current eating patterns and identify where change is needed – fast food, excessive energy intake, and lack of fruits and vegetables. Exercising >60 minutes per day.

Plan: continue exercise routine. RD helps to identify how to cut calories and increase fruits and vegetables in easy ways.

6 months later

Biometric screenings complete

Glucose 121 to 104
Weight from 211.5 lbs to goal weight of 179.8 lbs

Continues to exercise daily (1 hour or more) and has incorporate frozen vegetables into his meals and assisted to make healthy easy meals at home from work with RD
Partner up for Patient Centered Care

Health care team (registered dietitian, diabetes educator, physical therapist, occupational therapist, social worker, disease manager, health coach, PCP)
YMCA and other fitness centers and community centers
Food pantries
Public Health Department programs and services
Insurance companies/Accountable Care Organizations (ACO)
Diabetes Prevention Programs
Counselors/Psychology

Conclusion

Meet your patients at their stage of change
Recognize barriers versus excuses
Focus on the positives and what they can do versus what they cannot
Partner up within your community and health system for your patients best chance of success
Small changes make big differences

Resources

2018, MAYO CLINIC, ONSITE TRAINING, MOTIVATIONAL INTERVIEWING
HEALTHY PEOPLE 2020
"EFFECTS ON CARDIOVASCULAR RISK FACTORS OF WEIGHT LOSSES LIMITED TO 5-10%" HTTPS://WWW.NCBI.NLM.NIH.GOV/PMC/ARTICLES/PMC4987606/
"CDC: LIFESTYLE CHANGES CAN REDUCE DEATH FROM TOP 5 CAUSES" HTTPS://WWW.CANCER.ORG/LATEST-NEWS/CDC-LIFESTYLE-CHANGES-CAN-REDUCE-DEATH-FROM-TOP-5-CAUSES.HTML

Thank you for attending the 2019 Hypertension Summit!

Please complete: Evaluation Form

Tiffany Knauf, Health Systems Coordinator
tknauf@nd.gov 701-328-3222

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