Million Hearts®: A Platform for Promoting Population Health, Education and Partnerships in Academia
Presenters

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Symposium Objectives

1.) The learner will be able to describe the Million Hearts® initiative and key strategies for its advancement through interprofessional education and community outreach initiatives.

2.) The learner will be able to identify two population needs based on the data acquired via the educational program.
LET’S FIRST TALK ABOUT “LECTURCISE”.

LECTURE + EXERCISE = LECTURCISE
WHAT IS MILLION HEARTS®?
THE DISEASE BURDEN
Heart Disease Burden

- Heart Disease is the leading cause of death for both men and women in the U.S.¹

- Each year, about 735,000 people in the U.S. have a heart attack²

- Each year, about 610,000 people die of heart disease¹

- 1 in 4 deaths in the United States is due to heart disease¹

¹. CDC, NCHS. Underlying Cause of Death 1999-2013 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2013, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed March 16, 2015.

Stroke Burden

• 1 in every 20 deaths in the U.S. is due to stroke

• Every 4 minutes, someone dies of a stroke

• Each year, about 795,000 people in the U.S. have a stroke

• Stroke is the third leading cause of death in the U.S.

1. CDC, NCHS. Underlying Cause of Death 1999-2013 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999-2013, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed March. 16, 2015


WHAT IS THE MILLION HEARTS® INITIATIVE?
The Million Hearts Initiative®

“The Million Hearts® initiative focuses, coordinates, and enhances cardiovascular disease prevention activities across the public and private sectors in an unprecedented effort to prevent 1 million heart attacks and strokes by 2017 and demonstrates to the American people that improving the health system can save lives.”

- CDC, 2013
Goals of Million Hearts®

• Prevent 1 million heart attacks and strokes by 2017

• Empower and educate Americans to make healthy choices

• Target care by focusing on the “ABCS”

• Use proven clinical and communities strategies to prevent cardiovascular disease

Reaching Goals

• Improving access to effective care

• Improving the quality of care for the ABCS

• Focusing clinical attention on the prevention of heart attack and stroke

• Activating the public to lead a heart-healthy lifestyle

• Improving the prescription and adherence to appropriate medications for the ABCS

Key Partners

• Co-leaders of Million Hearts® within the U.S.
  - Department of Health and Human Services
  - The Centers for Disease Control and Prevention
  - Centers for Medicare and Medicaid Services

• Key private-sector partners, including the American Heart Association, American Nurses Association, American Association of Colleges of Nursing, American Association of Nurse Practitioners and the YMCA
LET’S LECTURCISE
WHAT ARE THE ABCSSs?
Know your ABCSs

• Appropriate Aspirin Therapy
• Blood Pressure Control
• Cholesterol Management
• Smoking Cessation
• Stress Reduction**

** Ohio State’s additional “S”
Appropriate Aspirin Therapy

- The Million Hearts® goal for 2017 is to increase aspirin usage in high risk people to 65%

- The U.S. Preventive Services Task Force ¹ recommends aspirin therapy for cardiovascular disease and stroke prevention in:
  
  - Men 45-79
  - Women 55-79

¹ US Preventive Services Task Force, Aspirin for Prevention of Cardiovascular Disease
Blood Pressure Control

- The Million Hearts® goal for 2017 is to achieve blood pressure control in 65% of people with hypertension.

- Blood pressure guidelines\(^1\) recommend initiating treatment for a blood pressure of <140/90 for adults aged <60 years and a blood pressure of <150/90 for individuals aged ≥ 60 years.

Cholesterol Management

• The Million Hearts® goal for 2017 is to achieve cholesterol control in 65% of people with high cholesterol

• Risk factors, disease states, LDL cholesterol levels, and an estimated 10 year risk of having an cardiovascular event determine whether cholesterol medication is initiated¹

1. 2013 ACC/AHA Guidelines on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adult
Smoking Cessation

• People who smoke increase their risk of heart disease by 2-4 times that of people who do not smoke\(^1\)

• 19\% of the U.S. population smokes

• The Million Hearts® goal is to reduce this number to 17\%

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1. American Heart Association, 1997
Stress Reduction

• Stress can increase the body’s release of certain hormones, such as cortisol and adrenaline.

• Persistently elevated levels of these hormones from chronic stress may lead to serious health problems, such as heart disease and high blood pressure.¹

¹National Institute of Mental Health, Fact Sheet on Stress
Controlling these risk factors can reduce risk of heart attack and stroke by more than 80%\(^1\)....

Look at the opportunity that exists!

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TAKING ACTION: REDUCING RISK
Appropriate Aspirin Therapy

• Benefits and risks of aspirin therapy should be assessed with each patient

• If it is determined that aspirin is right for a patient, then determine which dose is indicated:
  - One baby aspirin (81 mg) every day, or
  - One regular aspirin (325 mg) every other day

1. Agency for Healthcare Research and Quality, Taking Aspirin to Prevent Strokes
Blood Pressure Control

• If indicated, make sure the patient has been taking the medication as directed

• Lifestyle Modifications for blood pressure reduction include¹:

  - Weight reduction
  - Adoption of the Dietary Approaches to Stop Hypertension (DASH) eating plan
  - Dietary sodium reduction
  - Increased physical activity
  - Moderation of alcohol consumption

Cholesterol Management

• If indicated, make sure the patient has been taking medication as directed

• Lifestyle Modifications for cholesterol reduction include¹:
  - Following a healthy diet high in fruits, vegetables, low-fat dairy foods, and whole grains and low in saturated fat, trans fat, and cholesterol
  - Weight reduction
  - Increased physical activity

1. Agency for Healthcare Research and Quality High Cholesterol
Smoking Cessation

• Advise quitting

• Proactive telephone counseling, group counseling, and individual counseling formats are effective and should be used

• Both counseling and medication should be provided to patients trying to quit smoking¹
Stress Reduction

• No single method works for everyone or in every situation

• Some things to try: eat a well balanced diet, listen to music, spend time with family or friends, deep breath, join a support group, keep a journal, practice yoga or meditation, exercise, take a walk or get a massage
TAKING THE PLEDGE
The Million Hearts® Pledge

• SIGN the Million Hearts® pledge at millionhearts.hhs.gov

• COMMIT to changing just ONE thing

• PARTNER with us TODAY to provide the biggest Million Hearts® outreach in the COUNTRY
INTRODUCING....

THE NATIONAL INTERPROFESSIONAL EDUCATION & PRACTICE CONSORTIUM TO ADVANCE MILLION HEARTS®
What is NIEPCAMH?

• An association of academic institutions, community groups, and healthcare organizations who are committed to the advancement of Million Hearts® and promoting population health through prevention and screening

• Our goal is to screen and educate 100,000 individuals by 2017
JOIN US TODAY
LET'S
LECTURCISE
THE MILLION HEARTS® ONLINE EDUCATIONAL MODULES & SCREENING PROCESS
Million Hearts Online Modules

- Two different “certifications”
  - Million Heart Fellowship
  - Million Heart Community Ambassador

- 5 hours for completion

- Free to access and utilize
Million Hearts Fellowship Program

• Consists of 4 easy steps
  - Watch lectures
  - Participate in 10 screenings
  - Input data
  - Take a post test
Million Hearts Fellowship Program

Step 1

• Watch a series of five focused lectures
• Content includes:
  - an overview of the Million Hearts initiative
  - how to complete an accurate and comprehensive Million Hearts screening
  - how to interpret normal and abnormal values
  - a sample triage protocol for screenings with cases
  - how to effectively counsel participants on making lifestyle modifications
Million Hearts Fellowship Program

Step 2

• Complete ten community screenings
• Module has screening resources including:
  - Screening how-to pocket guide
  - Million Hearts® patient educational handouts
  - Participant Recording Log
  - Body Mass Index Charts
  - Perceived Stress Scale 4
  - Wallet blood pressure card

Million Hearts Fellowship Program

Step 3

• Enter participant data from 10 screenings into online module
• 11 questions per participant
• Allows us to track impact

Step 4

• Take a 10 item post test
• Upon completion with an 80%, a Million Hearts Fellow certificate is generated
Million Hearts® Community Ambassador Program

- Designed for community members
- Same 4 step process as the Million Hearts® Fellow program except the lecture content is more basic
How to access the modules

1. Go to [http://go.osu.edu/millionhearts](http://go.osu.edu/millionhearts)

2. Select *Million Hearts Fellow (or Community Ambassador if applicable)* from the list

3. Select *Create new account* if you are a new user or login with your existing account if you are a returning user.
How to access the modules

4. If you are registering as a new user you will receive an email with a confirmation link to verify you have used a valid email address. After receiving this e-mail, please click on the link to activate your account.

5. You will be asked for an enrollment key to enroll in the Million Hearts course. The enrollment key is “osumillionhearts”.

6. This should complete your enrollment into the course.
10 Step Million Hearts® Screening Protocol
Cardiovascular risk factor assessment in adults should start at age 20.
- Smoking status
- Diet
- Alcohol
- Physical Activity
- Blood Pressure
- Body Mass Index
- Waist Circumference
- Cholesterol
- Fasting blood glucose
Supplies Needed to Complete a Million Hearts® Screening

- Blood pressure cuff*
- Stethoscope*
- Stadiometer
- Scale
- Body Mass Index Chart*
- Perceived Stress Scale-4 (PSS-4)*
- Cholesterol machine & equipment
- Million Hearts® educational handouts*
- Participant Clinical Recording Log*
- Cloth tape measure

* essential items for basic assessment
10 Easy Steps to Performing a Million Hearts® Screening

1. Gather supplies.

2. Greet the participant and ask for permission to conduct a Million Hearts® screening on him/her.

3. Record the participant’s age, gender, race/ethnicity, & smoking status on the Participant Clinical Recording Log. If you are doing cholesterol, also record whether the participant is currently fasting.
10 Easy Steps to Performing a Million Hearts® Screening

4. Obtain and record blood pressure.

5. Obtain a height, weight, (actual or reported) and waist circumference.

6. Calculate and record Body Mass Index.

7. Complete and record the Perceived Stress Scale-4.
10 Easy Steps to Performing a Million Hearts® Screening

8. Complete and record a cholesterol screen. If unable to complete a cholesterol screen, ask the participant about past cholesterol screenings and encourage him/her to see a health care provider to be screened.

9. Counsel on all normal findings, abnormal findings, and taking the Million Hearts® pledge.

10. Provide Million Hearts® educational hand-outs and refer to a health provider for any abnormal findings.
Transdisciplinary Colleges Partnering Together to Improve Population Health through Million Hearts ®

• If each health professional student across the country educated 10 people on the ABCSs before graduation, we could reach millions of people

• IMAGINE how many lives we could SAVE.
CURRENT NUMBERS
LET’S
LECTURCISE
WHAT WE HAVE LEARNED FROM 18 MONTHS: IMPLICATIONS & QUALITY
WHY POPULATION HEALTH?
“Population health is the health outcomes of a group of individuals, including the distribution of such outcomes within the group”

- Kindig & Stoddart, 2003


Picture: http://blogs.perficient.com/healthcare/blog/2014/05/08/two-keys-for-population-health-success/
Why Is Population Health Important?

“To improve the health of a population requires acting to transform the places where people live, work, study and play.”

- Institute of Medicine, 2013

Why Population Health?

Mays and Smith (2011) demonstrated that increases in public health spending were associated with statistically significant reductions in mortality with cardiovascular mortality rates falling by 3.2% for each ten percent increase in spending.¹

Targeting management via the ABCS has been shown to prevent more deaths than other clinical preventive services.¹

The Million Hearts® Initiative

Modest changes in one or more cardiovascular risk factors among the population could have a profound public health impact.¹

18 MONTHS OF DATA FROM THE MILLION HEARTS® EDUCATIONAL PROGRAM
## Population Demographics

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>20 and under</td>
<td>9%</td>
</tr>
<tr>
<td>21-30</td>
<td>26%</td>
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<tr>
<td>31-40</td>
<td>15%</td>
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<tr>
<td>41-50</td>
<td>17%</td>
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<tr>
<td>51-60</td>
<td>16%</td>
</tr>
<tr>
<td>Over 60</td>
<td>17%</td>
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*N= 22158*
## Population Demographics

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent</th>
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<tbody>
<tr>
<td>American Indian</td>
<td>&lt;1%</td>
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<tr>
<td>Asian</td>
<td>4%</td>
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<tr>
<td>Black</td>
<td>17%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>8%</td>
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<tr>
<td>Multi-racial</td>
<td>2%</td>
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<tr>
<td>Caucasian</td>
<td>68%</td>
</tr>
</tbody>
</table>

*N= 22096*
## Population Demographics

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<tr>
<th>Smoking Status</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Current Smoker</td>
<td>18%</td>
</tr>
<tr>
<td>Non-smoker</td>
<td>71%</td>
</tr>
<tr>
<td>Social Smoker</td>
<td>11%</td>
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</tbody>
</table>

\[ n = 22158 \]
## Population Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>53%</td>
</tr>
<tr>
<td>Male</td>
<td>47%</td>
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</tbody>
</table>

$n = 22158$
Population Biometrics

Blood Pressure

- Normal, 47%
- Pre-HTN, 31%
- Stage 1 HTN, 17%
- Stage 2 HTN, 4%
- Not Completed, 1%

n = 22158
Population Biometrics

Body Mass Index

- Normal, 44%
- Not Completed, 1%
- Obesity Class 3, 2%
- Obesity Class 2, 5%
- Obesity Class 1, 13%
- Underweight, 5%
- Overweight, 30%

$n = 22158$
Population Biometrics

Cholesterol

- Not Completed, 61%
- <200 mg/dL, 23%
- 200-239 mg/dL, 12%
- >240 mg/dL, 4%

n = 18434
Population Biometrics

PSS-4 Stress Screen

- Score 0-4, 29%
- Score 5-8, 31%
- Score 9-12, 16%
- Score 13-16, 4%
- Not Completed, 20%
Population Biometrics

Lifestyle Modification Counseling

- Yes, 76%
- No, 24%

$n = 22158$
Referral to Health Care Provider

Referral Completed

- Yes, 38%
- No, 62%

n = 16558
Course Evaluation

90% of module users report being either very prepared or prepared

n = 12852
Course Evaluation

n = 12852

85% of module users report the module was either very easy to use or easy to use.
LET'S
LECTURCISE
Relevant Associations
Relevant Associations
Relevant Associations
Relevant Associations
Relevant Associations
Implications

• Increase rate of referrals (especially for abnormal parameters)

• Increase rate of behavioral modification (BM) counseling while assuring counseling is effective and evidence-based
Recent Improvements to the MH Educational Program

• Current guidelines (JNC-8, AHA/ACC Guideline on Assessment of Cardiovascular Risk)

• Lecture on Motivational Interviewing

• 3 case studies on appropriate referral process
Population Assessment

1.) Many abnormal parameters align with national statistics.

2.) Most abnormal parameters were strongly correlated with stress. Try starting here?

3.) Older population and minorities have more risk factors and need to be targeted.
Population Assessment

4.) Assess for “social smokers” and counsel on quitting.

5.) Don’t forget about underweight being an abnormal parameter that requires referral and behavioral modification counseling.
LET'S
LECTURCISE
INCORPORATING MILLION HEARTS® SCREENINGS INTO NURSING CURRICULA & COMMUNITY OUTREACH
INCORPORATING MILLION HEARTS® INTO NURSING CURRICULA
AACN’s Essentials

• In alignment with the American Association of Colleges of Nursing’s Essentials

• Baccalaureate, Essential VII¹
• Graduate, Essential VIII²
• Doctoral, Essential VII³

National Initiatives and Goals

• Million Hearts® biometric screenings contribute to three different sets of national initiatives and goals:

• Healthy People 2020
• The Triple Aim®
• Million Hearts®
Incorporating into Curricula

- Million Hearts® biometric screenings provide a hands-on clinical experience for any nursing student to participate in a population health experience

- Can be completed as a specific assignment or incorporated into current clinical experiences

- Requirement vs. extra credit

- Any course or education level can incorporate the Million Hearts® screenings
Incorporating into Curricula

• Assessment, Community/Public Health, Leadership, and nursing clinical courses provide numerous clinical opportunities
  - Flu clinics
  - Alumni Activities
  - Community Activities
  - Free Clinics
  - Community Partnerships
  - Grant Partnerships
  - Sporting Events
  - Medical Centers
  - Student Groups
Advantages for Incorporating into Curricula

• Student clinical experiences in population health and contributing to national initiatives

• Online, self-study module for students

• Resume builder – certified as a Million Hearts Fellow

• Builds partnerships between colleges/schools of nursing and community organizations

• Benefits local community members
MILLION HEARTS® COMMUNITY OUTREACH & ENGAGEMENT
Million Hearts®

Goals

• 65 participants from local area congregations attended a training session on Million Hearts®

• Asked to participate by their local pastor and become the point person or the Community Ambassador for their congregation

• Most had a health care background

Incorporating into Local Community Churches
Local Screening Events

• Examples of participation in community events
  - Ohio State Fair
  - Farm Science Review
  - Ask-A-Buckeye Nurse
  - Valentine’s Day
OSU Screening Events

• Examples of participation within OSU
  - New Hire Onboarding process
  - Million Hearts® Plus Program
  - OSU Retirees Association
Wellness on Wheels (WOW)

• Two WOW tours have been completed
  - Bus tours with students and faculty from the colleges of nursing, medicine, nutrition, exercise science, public health and pharmacy
  - Conducted large scale Million Hearts® and wellness screening utilizing interprofessional teamwork
Local Corporate Screenings

- Partnerships with local corporations
- Students conducted Million Hearts screenings on employees
Statewide Impact

- Ohio Nurses Association
  - Collaboration with the Ohio Nurses Association to offer the educational program for continuing education credit to members for free
  - Focus on nurses participating in screening events
- Ohio’s Medicare Quality Improvement Organization
Partnering with OSU Extension to Advance Million Hearts®

- OSU Extension is a division of Ohio State that addresses the needs of the local communities around Ohio and combines the needs of local citizens and communities with new research and technical information.

- At-risk individuals are identified during screenings at local community events.
Partnering with OSU Extension to Advance Million Hearts®

- At-risk individuals are referred to a series of 3 educational classes designed around the ABCSs of Million Hearts
- Main focus is lifestyle modifications to reduce risk
- Classes consist of informative information, cooking demonstrations, and hand-on activities
- Graduate students perform the initial screenings
Outreach & Networking

• Community Commons website

• Online community developed by the CDC to connect, collaborate, and highlight the work you are doing to support the Million Hearts ® initiative.

• http://www.communitycommons.org/groups/million-hearts/
LET'S
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