



THE OHIO STATE UNIVERSITY

**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® ?

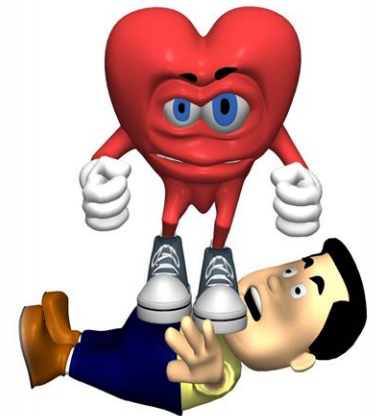


THE DISEASE BURDEN



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.

2. Mozaffarian D, Benjamin EJ, Go AS, et al. Heart disease and stroke statistics—2015 update: a report from the American Heart Association. *Circulation*. 2015;131:e29-322.

Stroke Burden

- 1 in every 20 deaths in the U.S. is due to stroke¹
- Every 4 minutes, someone dies of a stroke²
- 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



1. CDC, NCHS. Underlying Cause of Death 1999-2013 on [CDC WONDER Online Database](https://wonder.cdc.gov/), 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

2. Mozaffarian D, Benjamin EJ, Go AS, et al. Heart disease and stroke statistics—2015 update: a report from the American Heart Association. *Circulation*. 2015 ;e29-322.



**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



PARTNERS



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



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The heart is highly reflective, showing highlights and shadows. The stethoscope's tubing is draped over the heart.

LET'S LECTURCISE



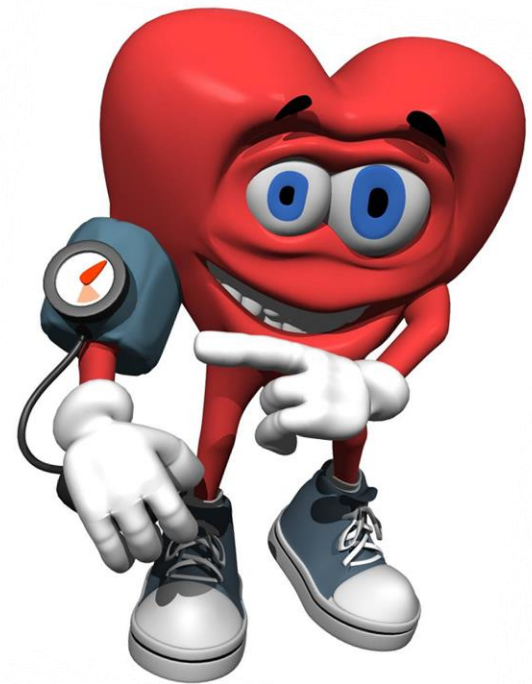


WHAT ARE THE ABCSs?



Know your ABCSs

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



Picture <http://www.thediabetesclub.com/wp-content/uploads/2010/07/blood-pressure.jpg>

** 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



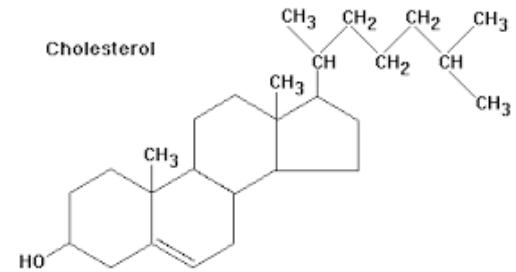
Blood Pressure Control

- The Million Hearts® goal for 2017 is to achieve blood pressure control in 65% of people with hypertension
- Blood pressure guidelines¹ 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

1. The 8th Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, 2014.



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 a 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 smoke¹
- 19% of the U.S. population smokes
- The Million Hearts® goal is to reduce this number to 17%



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 pressure¹



Picture
<http://choosehypnosis.com/stress.htm>

The Million Hearts® Initiative

Controlling these risk factors can reduce risk of heart attack and stroke by more than **80%**¹....

Look at the



that exists!

1. Centers for Disease Control and Prevention (n.d.) About Heart Disease and Stroke. Retrieved from <http://millionhearts.hhs.gov/abouthds/risk-factors.html#hdAge>





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



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

1. The 8th Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure.



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

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®**





National Interprofessional Education
and 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



A stethoscope is positioned over a large, glossy, 3D heart shape. The heart is rendered with realistic lighting and shadows, giving it a three-dimensional appearance. The stethoscope's tubing is dark and loops around the heart. The background is a soft, light gray gradient.

JOIN US TODAY



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The stethoscope's tubing is draped over the heart, and its chest piece is positioned on the right side of the heart. The background is a soft, out-of-focus white.

LET'S LECTURCISE





**THE MILLION HEARTS® ONLINE
EDUCATIONAL MODULES &
SCREENING PROCESS**



Million Hearts Online Modules



CERTIFIED

- 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 4¹
 - Wallet blood pressure card

1 Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.



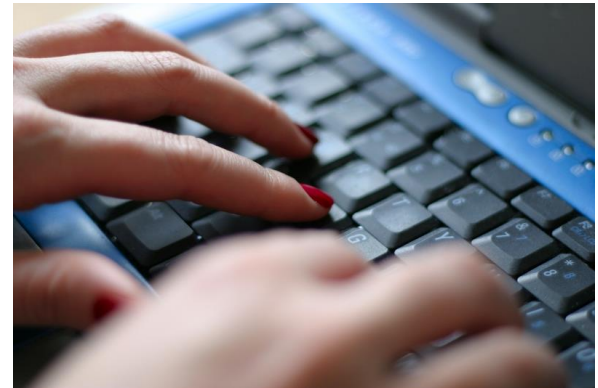
Million Hearts Fellowship Program

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>
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.



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The heart is highly reflective, showing highlights and shadows. The stethoscope's tubing is draped over the heart.

LET'S LECTURCISE





10 Step Million Hearts® Screening Protocol

Million Hearts® Screening

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.

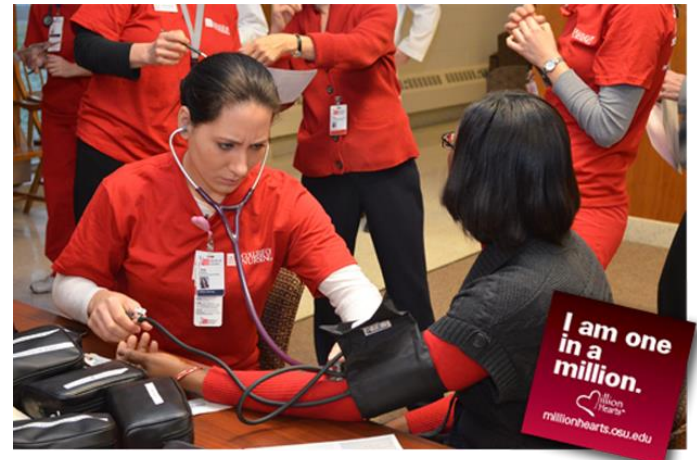
10 Easy Steps to Performing a Million Hearts® Screening

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.



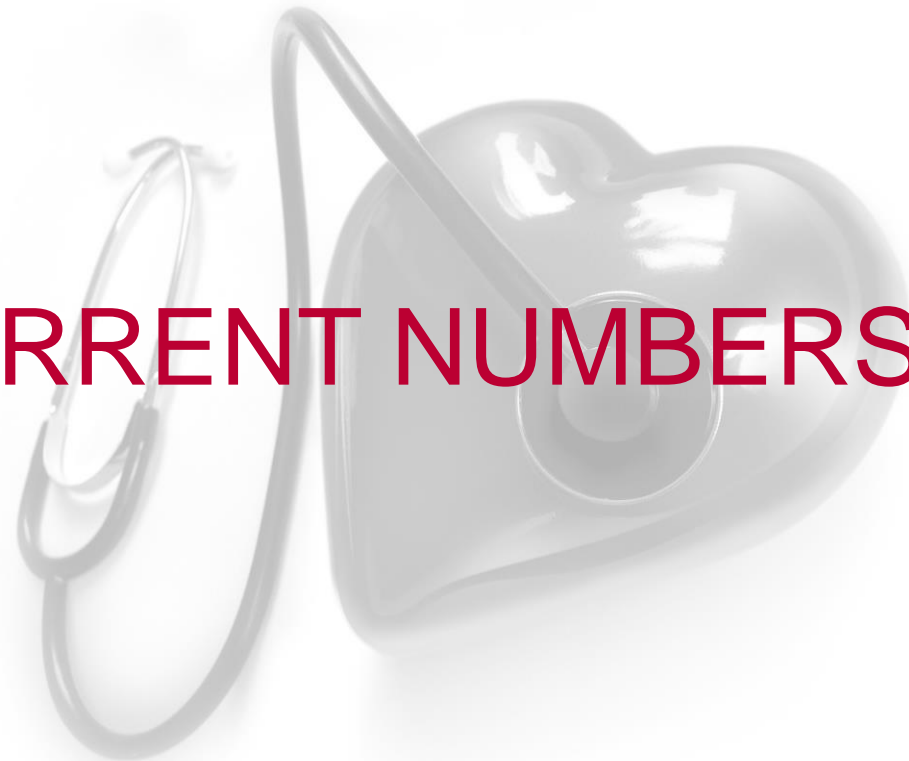
Transdisciplinary Colleges Partnering Together to Improve Population Health through Million Hearts ®

- 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



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The heart is highly reflective, showing highlights and shadows. The stethoscope's tubing is draped over the heart.

LET'S LECTURCISE



STTI Research Congress 2015 Symposium Part 2



**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 group¹”



- Kindig & Stoddart, 2003

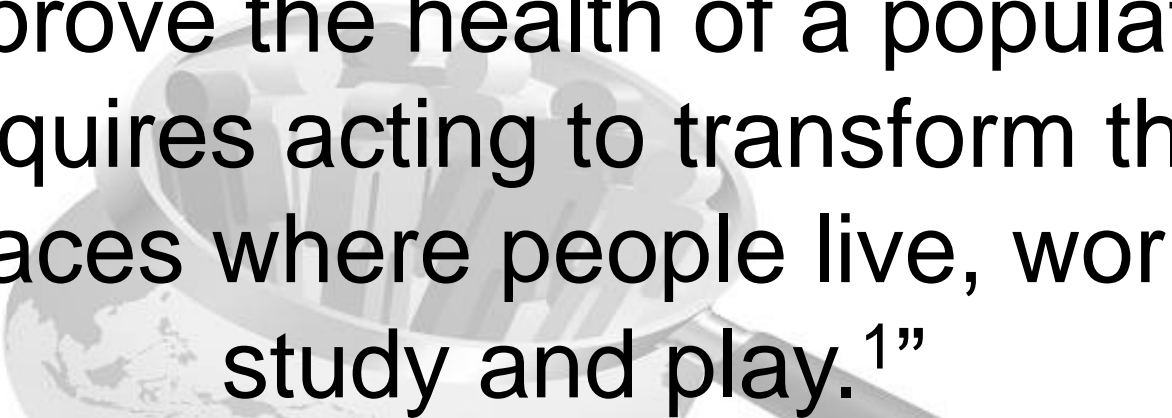
1 Kindig, D. & Stoddart, G.(2003). What is population health? *Am J Public Health* 93 (3): 380–383.

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.¹”



- Institute of Medicine, 2013

¹ Institute of Medicine (2013). Population health implications of the affordable care act: workshop summary.

Why Population Health?

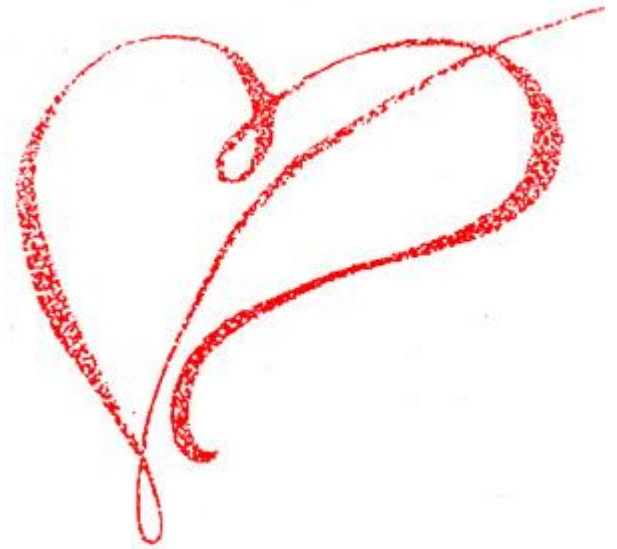
Mays and Smith (2011) demonstrated that increases in public health spending were associated with statistically significant reductions in mortality with cardiovascular mortality rates falling by 3.2% for each ten percent increase in spending.¹



1. Mays, G.P. & Smith, S.A. (2011). Evidence links increases in public health spending to declines in preventable deaths. *Health Affairs*, 30 (8), 1585-1593.

Why Million Hearts®?

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



1. Farley, T.A., Dalal, M.A., Mostashari, F., & Frieden, T.R. (2010). Deaths preventable in the U.S. by improvements in use of clinical preventive services. *American Journal of Preventive Medicine*, 38, 600–9.



The Million Hearts® Initiative

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

¹ Chronic Disease Definition.

<http://www.medicinenet.com/script/main/art.asp?articlekey=33490> Accessed March 29, 2015.





**18 MONTHS OF DATA FROM THE
MILLION HEARTS®
EDUCATIONAL PROGRAM**



Population Demographics

Age	Percent
20 and under	9%
21-30	26%
31-40	15%
41-50	17%
51-60	16%
Over 60	17%

N= 22158



Population Demographics

Race/Ethnicity	Percent
American Indian	<1%
Asian	4%
Black	17%
Hispanic/Latino	8%
Multi-racial	2%
Caucasian	68%

N= 22096



Population Demographics

Smoking Status	Percent
Current Smoker	18%
Non-smoker	71%
Social Smoker	11%

$n = 22158$



Population Demographics

Gender	Percent
Female	53%
Male	47%

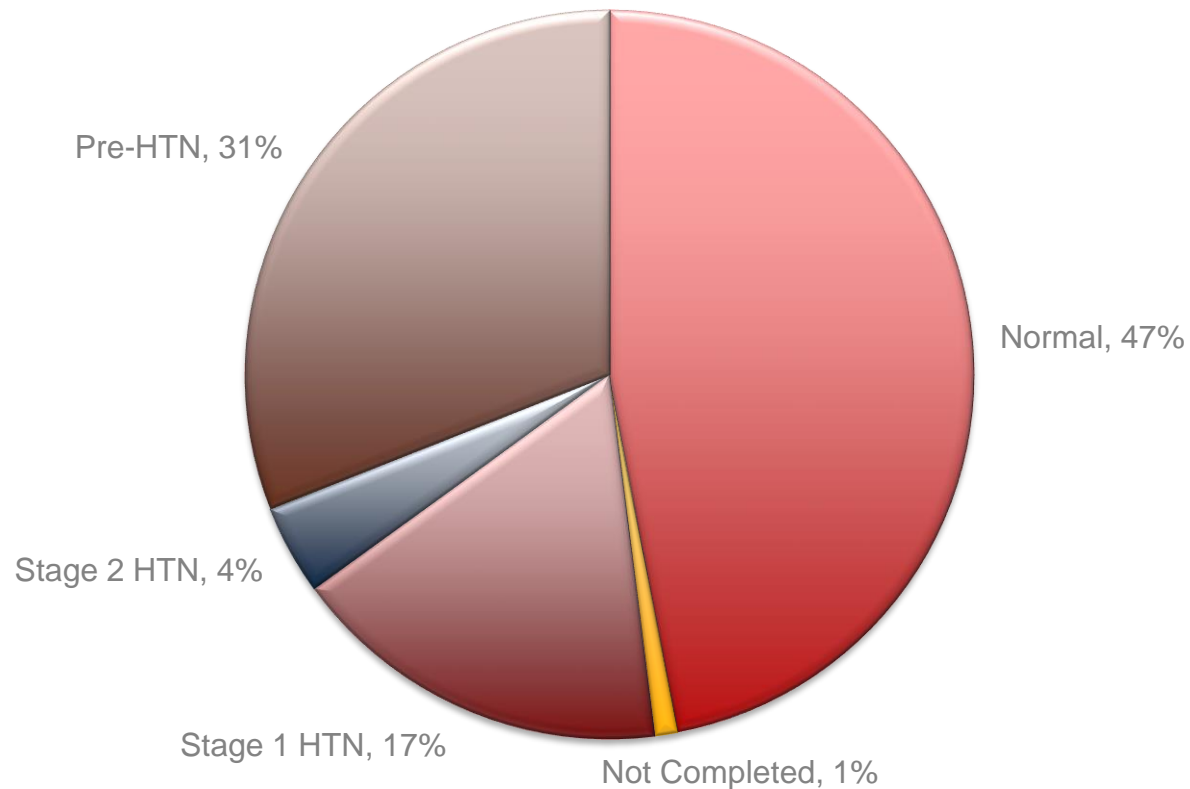
n = 22158



Population Biometrics

Blood Pressure

n = 22158



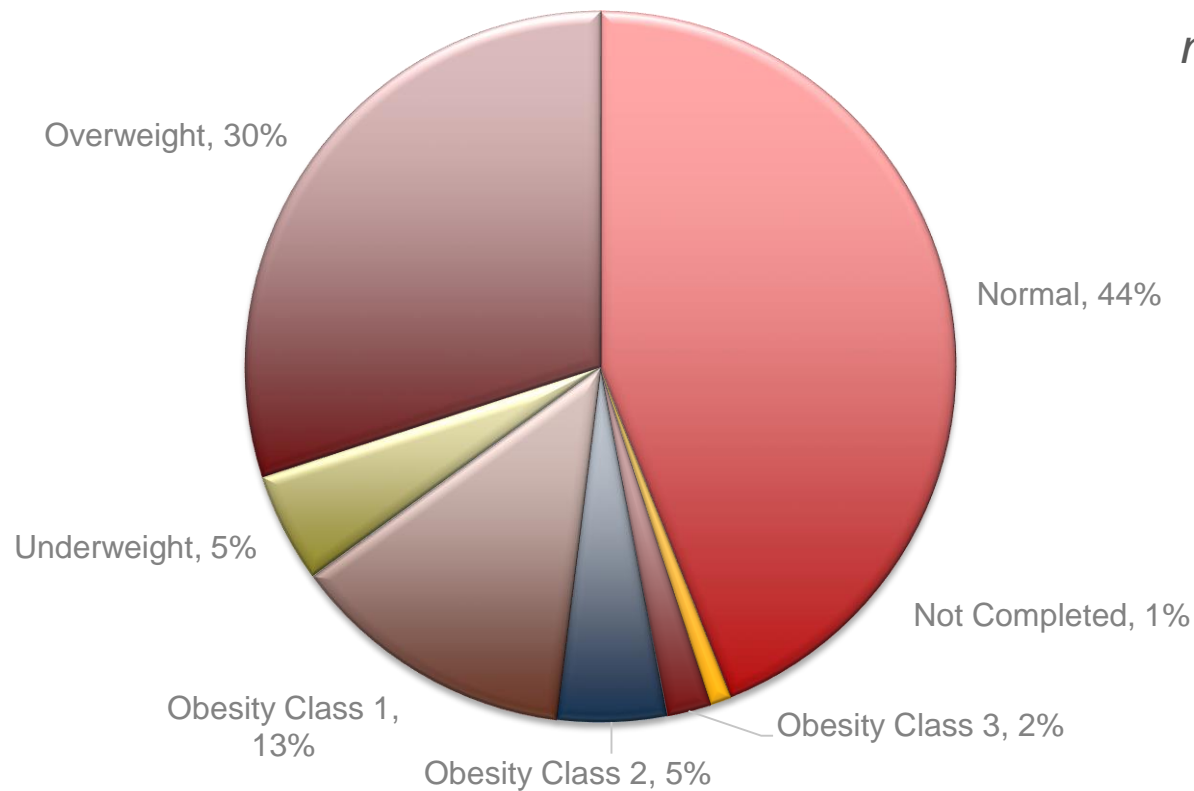
■ Normal ■ Not Completed ■ Stage 1 HTN ■ Stage 2 HTN ■ Pre-HTN



Population Biometrics

Body Mass Index

$n = 22158$



■ Normal
■ Obesity Class 1

■ Not Completed
■ Underweight

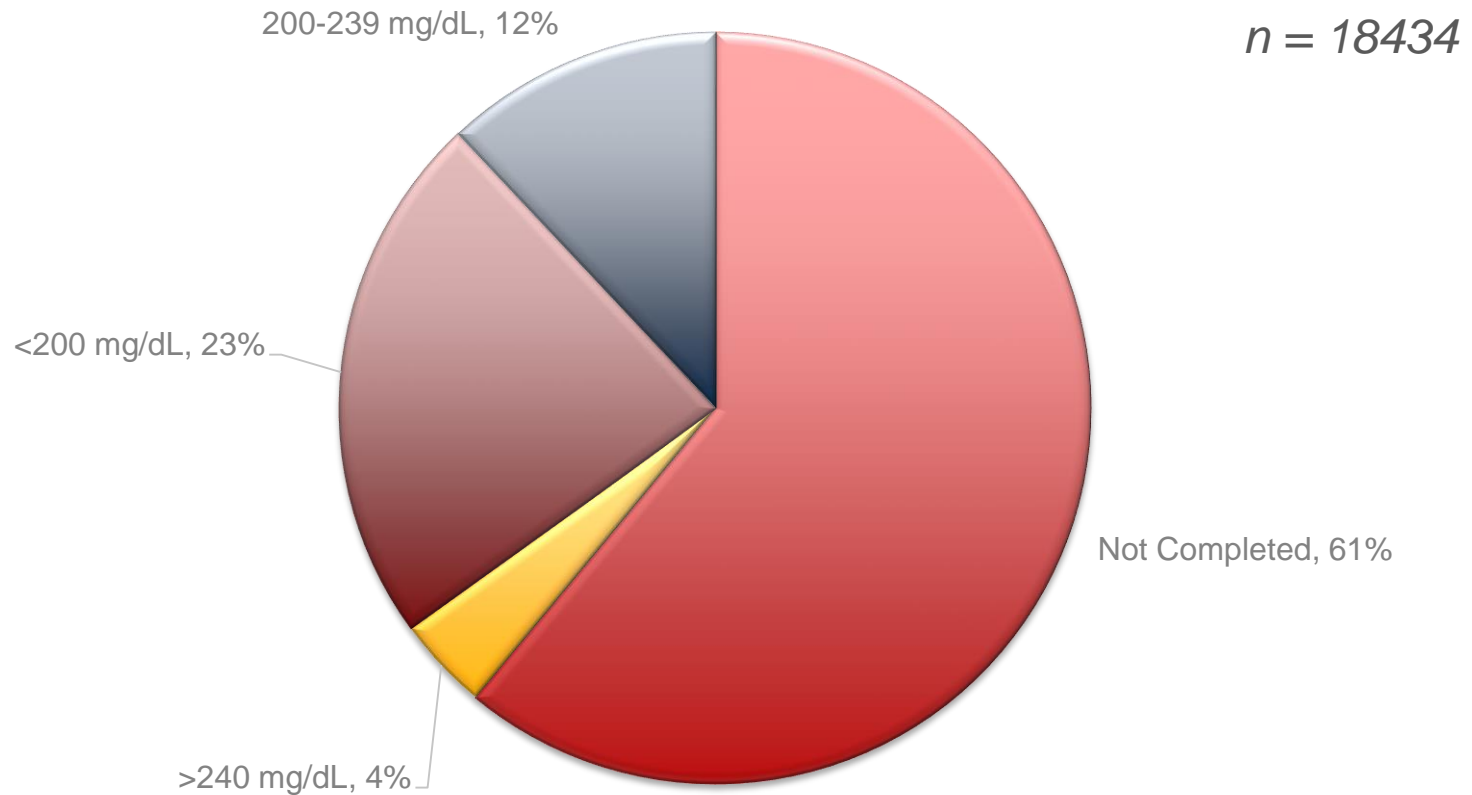
■ Obesity Class 3
■ Overweight

■ Obesity Class 2



Population Biometrics

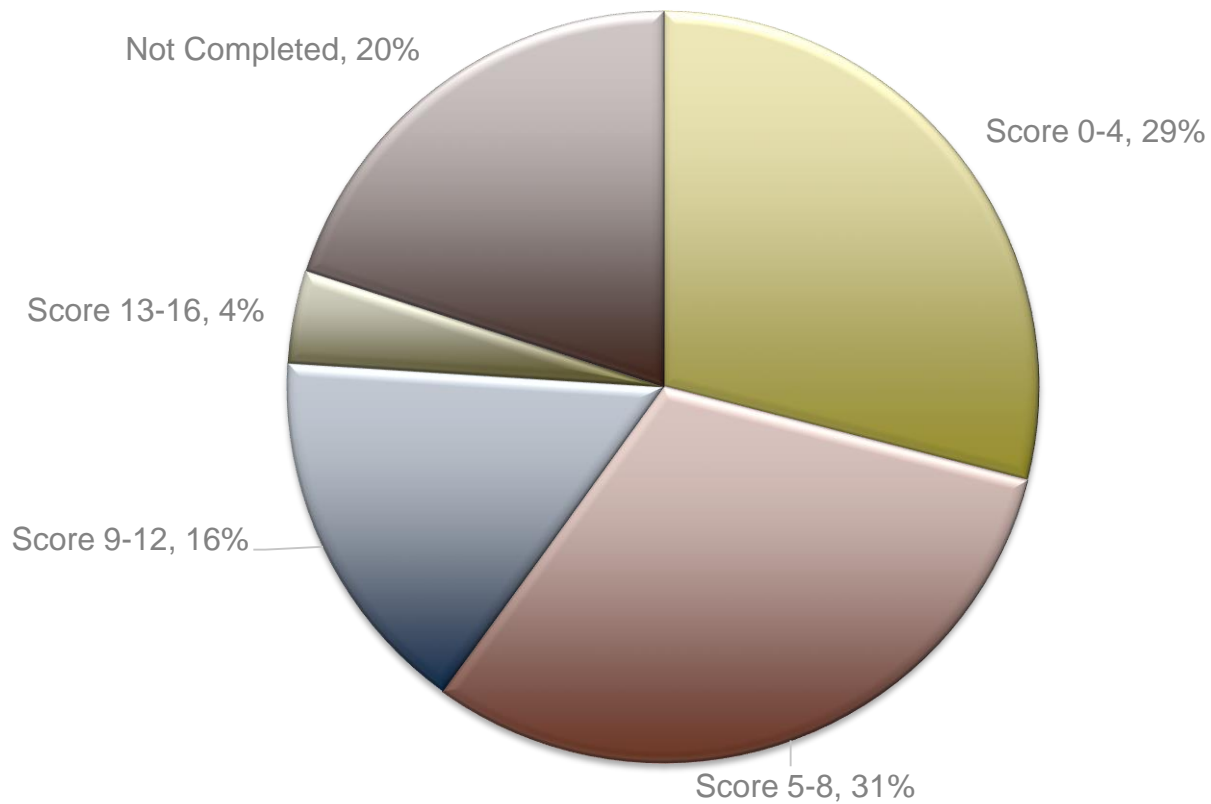
Cholesterol



■ Not Completed ■ >240 mg/dL ■ <200 mg/dL ■ 200-239 mg/dL

Population Biometrics

PSS-4 Stress Screen



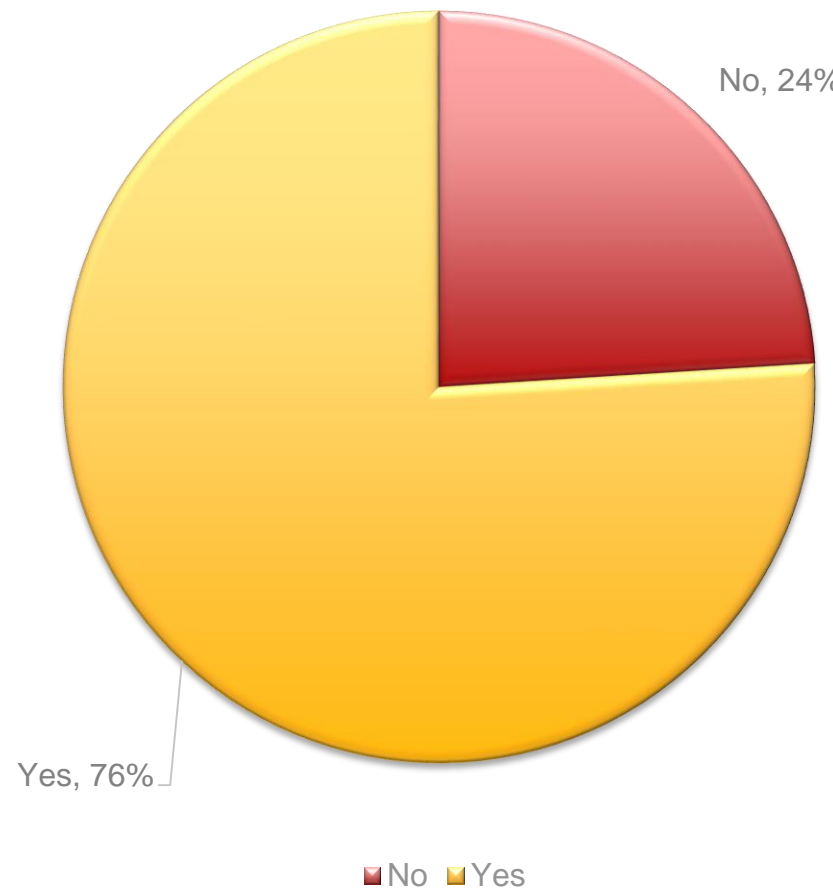
■ Score 0-4 ■ Score 5-8 ■ Score 9-12 ■ Score 13-16 ■ Not Completed



Population Biometrics

Lifestyle Modification Counseling

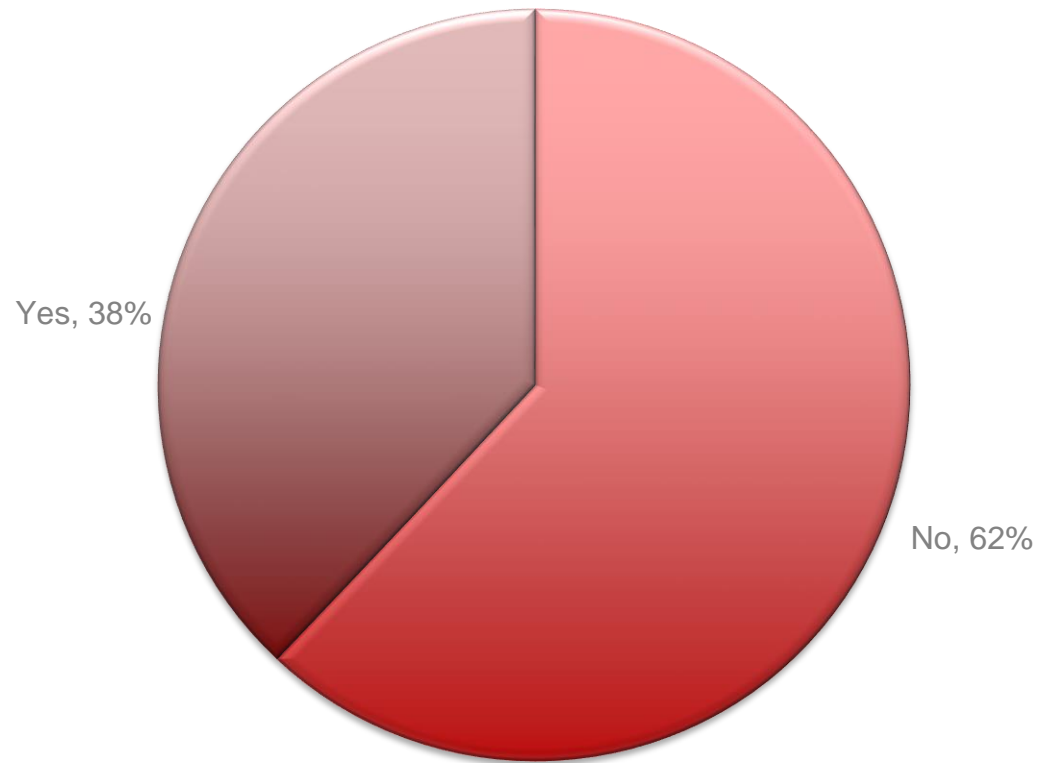
n = 22158



Referral to Health Care Provider

Referral Completed

n = 16558

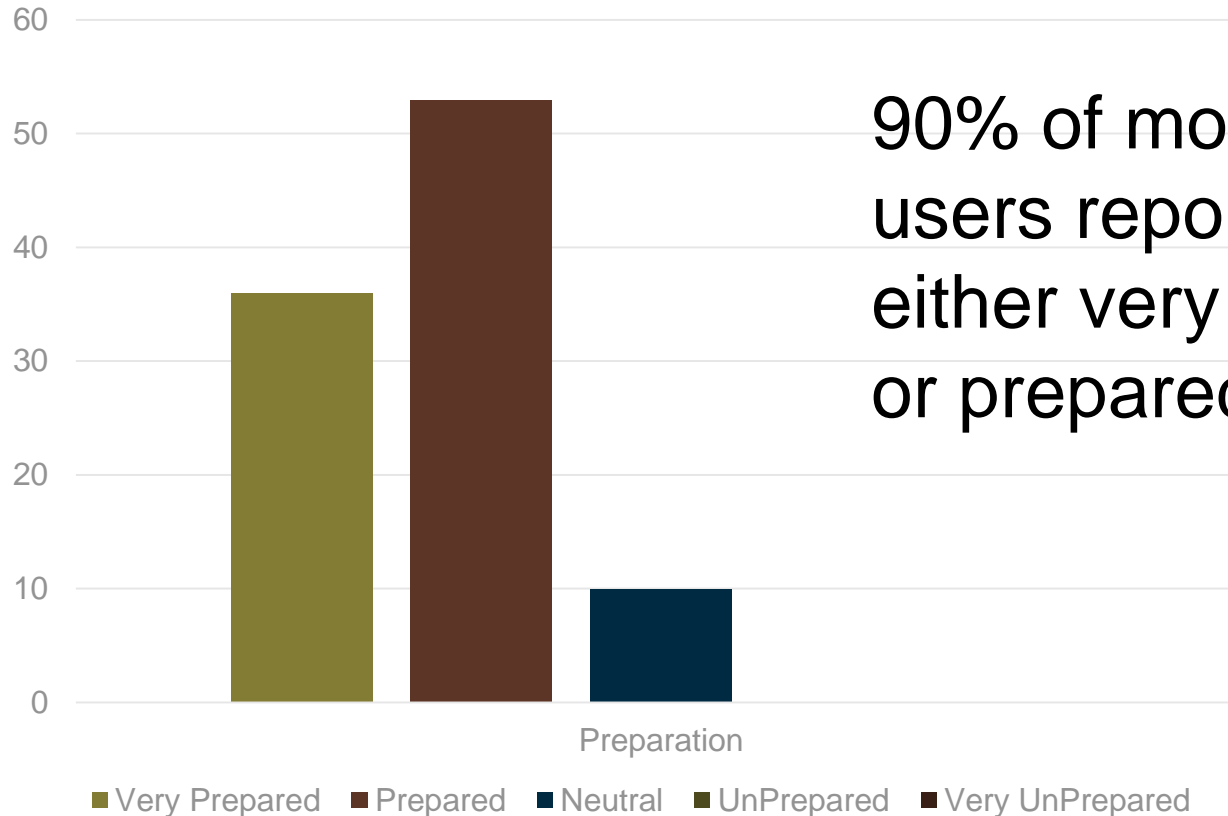


■ No ■ Yes



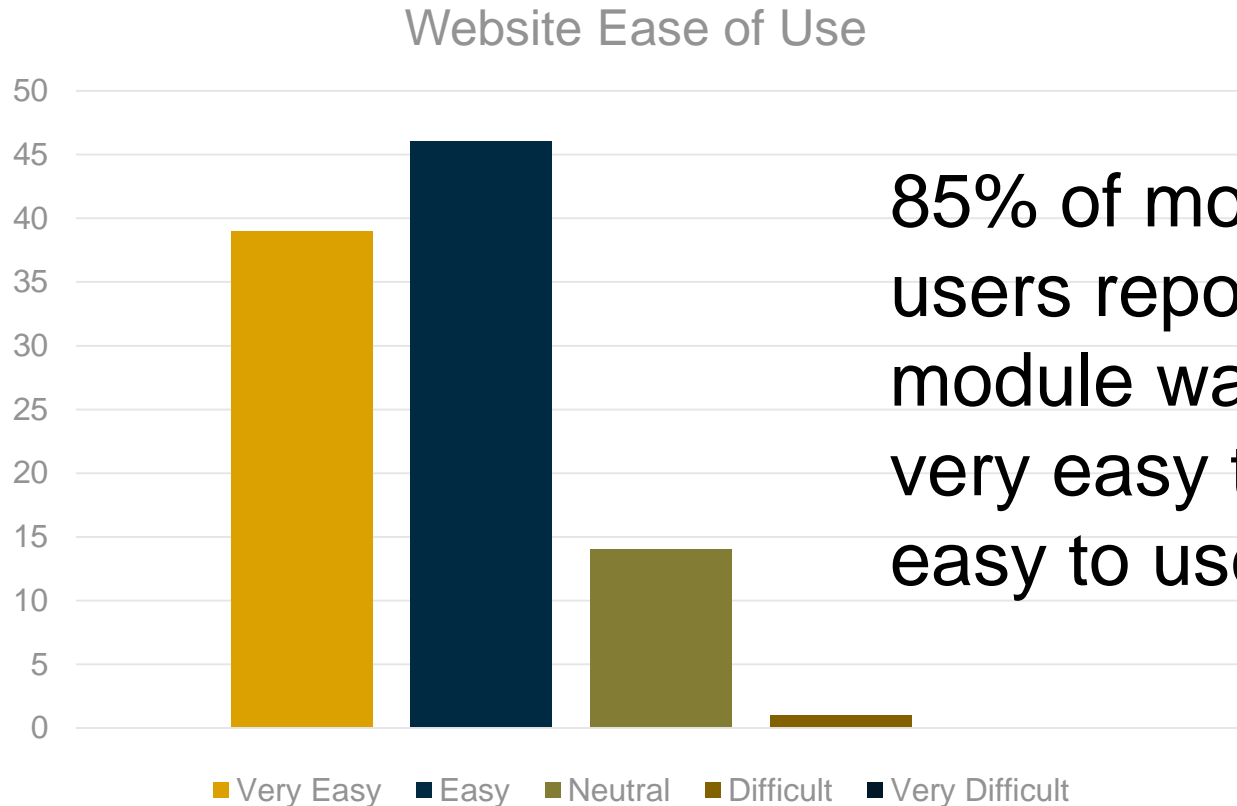
Course Evaluation

n = 12852



Course Evaluation

n = 12852



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The stethoscope's tubing is draped over the heart, and its chest piece is positioned on the right side of the heart. The background is a soft, out-of-focus white.

LET'S LECTURCISE



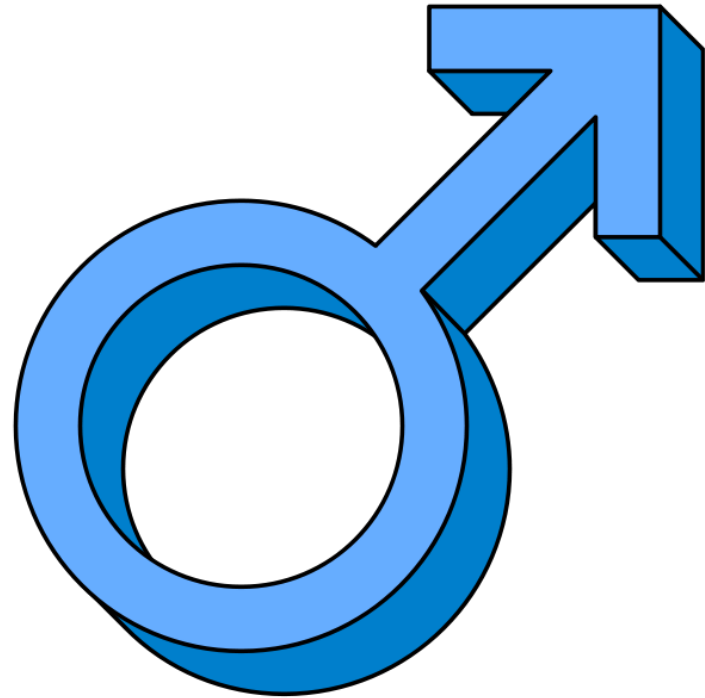
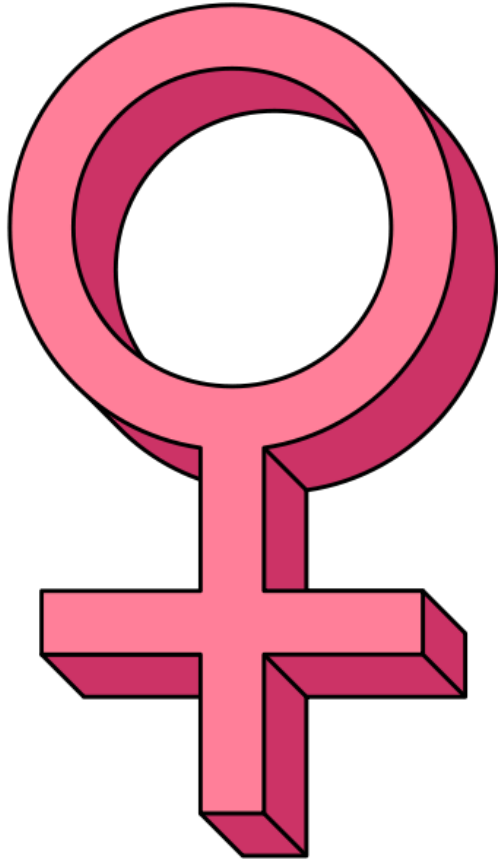
Relevant Associations



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.



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The stethoscope's tubing is draped over the heart, and its chest piece is positioned on the right side of the heart. The background is a soft, out-of-focus white.

LET'S LECTURCISE



STTI Research Congress 2015 Symposium Part 3



**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

1 American Association of Colleges of Nursing (2008). *The essentials of baccalaureate education for professional nursing practice*. Washington, DC: Author.

2. American Association of Colleges of Nursing (2011). *The essentials of masters education in nursing*. Washington, DC: Author.

3. American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Washington, DC: Author.



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**



Incorporating into Local Community Churches



- 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





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 ABCs 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/>



A photograph of a silver stethoscope resting on a dark, glossy heart-shaped object. The stethoscope's tubing is draped over the heart, and its chest piece is positioned on the right side of the heart. The background is a soft, out-of-focus white.

LET'S LECTURCISE





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