

# Women's Heart Clinic Must Have Or Nice To have? Debate

ד"ר אביטל פורטר  
מנהלת אשפוז קרדיולוגיה ביניים  
ומנהלת מרפאת לב האישה,  
המערך הקרדיולוגי,  
מרכז רפואי רבין

ד"ר נועה ליאל  
מנהלת היחידה לאקוקרדיוגרפיה,  
המערך הקרדיולוגי,  
המרכז הרפואי אוניברסיטאי סורוקה  
הפקולטה למדעי הבריאות,  
אוניברסיטת בן גוריון בנגב

A photograph of Donald Trump speaking at a podium. He is wearing a dark suit, white shirt, and red tie. His mouth is open as if he is speaking, and his right hand is raised with the palm facing forward. A white speech bubble with a black outline is positioned in front of him, containing text. The background is a blurred blue and grey.

political correctness be damned

I THINK THE BIG  
PROBLEM THIS COUNTRY HAS  
IS BEING POLITICALLY CORRECT.  
I DON'T, FRANKLY, HAVE TIME FOR  
POLITICAL CORRECTNESS. AND TO BE  
HONEST WITH YOU, THIS COUNTRY  
DOESN'T EITHER.

## RELEVANT DISCLOSURE

**Daughter** of a geneticist , Prof. Tirza Cohen and an epidemiologist, Dr. Jacob Cohen

**Wife** of an endocrinologist, Prof. Yair Liel

**Mother** to a last year medical student, Yael Liel

And more...



**זכר ונקבה ברא אותם**



# Why do women live longer than men? World Economic Forum 2017

S. Assari Research Investigator of Psychiatry, University of Michigan

Women experience higher stress, chronic disease, earn less, more depression, more anxiety and more likely to be victims of violence.

Women earn less than men, and in many countries don't have the same human rights as men.

Despite social inequality, women experience, they live longer than men.

This is the case without a single exception in all countries.

For instance, in the U.S. in 2015 female full-time workers made only 80¢ for every dollar earned by men, indicating a 20% gender wage gap. Yet, life expectancy for women in the U.S. is 81.2 years compared to 76.4 for males.

Even in countries with larger wage gaps or extreme gender inequalities, women live longer.

**WOMEN LIVE LONGER THAN MEN**

stress  
social inequality  
anxiety  
depression  
don't have the same human rights  
violence



**despite their lower social rank and worse health?**

# Circulation

## EDITORIAL

Nanette K. Wenger

# Sauce for the Goose Versus Sauce for the Gander

## Should Men and Women Play the Same Game But With Different Rules?

Sex Differences  
Undergoing  
Results From the  
Failure)

Ileana L. Piña,  
Farsky, Serene  
Dragana Kosev  
Varadarajan, El  
Lee, Patrice Desvigne-Nickens  
and On behalf of the STICH Trial Investigators

ci literally meaning that **the same sauce applies**  
S **equally** well to cooked goose, regardless of **sex**

S  
E  
O If something is **acceptable for one person,**  
Ju it is **acceptable** for another, **often of the opposite sex**

M. Krumholz, Nancy P. Lorenze, Mitra Daneshvar, John A. Spertus, Gail  
D'Onofrio

Circulation. 2018;137:781-790, originally published February 19, 2018







# SILENT SYMPTOMS

Crushing chest pain isn't the only indication of a heart attack, and an excruciating headache is just one sign of stroke. Many people—particularly women—experience other symptoms they need to be aware of, says Mary Ann Bauman, M.D., an internist with Integrus Health in Oklahoma City and a spokesperson for the American Heart Association. Below, the top 10 red flags that usually signal a heart attack or stroke.

BY JANE BIANCHI

## SEVERE HEADACHE

This isn't your everyday tension headache or migraine—it's usually the most intense head pain you've ever felt.

## SLURRED SPEECH

Speaking may become difficult, and some facial muscles might become lax—you could find yourself drooling.

## CHEST PAIN OR PRESSURE

A sharp pain or heaviness may radiate toward your jaw or left shoulder. It could be continuous or come and go every few minutes.

## NAUSEA OR VOMITING

You may just feel queasy, or throw up, and your skin could turn a grayish color.

## DON'T WAIT

Symptoms may last anywhere from a few minutes to several hours, but the quicker you get to an ER, the better your odds of survival. If you notice any of these warning signs, call 911 immediately.

## LOSS OF BALANCE

Dizziness or lack of coordination might occur, causing you to walk incorrectly, stumble or fall over.

## SUBTLE SIGNS

Some heart attacks are sudden and intense, but most of the time symptoms are mild and gradual. "For example, with chest pain, a woman may not feel like there's an elephant sitting on her—she might just think her bra is too tight or that she's experiencing a hot flash or indigestion," says Dr. Bauman.



## A.M. ALERT

Most heart attacks and strokes occur in the morning, because platelets clot more easily during the early hours.

## TROUBLE SEEING

Vision can be blurry in one or both eyes, eyelids may appear droopy or pupils may look asymmetrical.

## JAW, NECK, BACK, SHOULDER OR ARM DISCOMFORT

Dull, nagging aches typically affect the left side.

## SHORTNESS OF BREATH

You feel like you can't get enough air.

## COLD SWEAT OR CHILLS

These fever-like sensations can strike all over the body.

## CALL 911

Don't drive yourself to the ER unless you have no other option. Your symptoms may quickly worsen, plus, an ambulance will get you to the hospital faster and EMTs can begin treating you on the way.

## NUMBNESS

One limb may become weak—or in severe cases, you might lose feeling on one entire side of your body.

♥ = POSSIBLE HEART ATTACK    🧠 = POSSIBLE STROKE

# Sauce for the Goose Versus Sauce for the Gander

## Should Men and Women Play the Same Game But With Different Rules?

Nanette K. Wenger

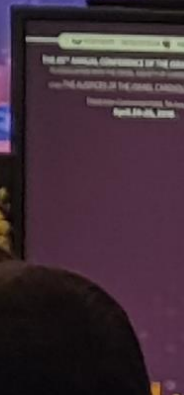
- **Traditionally**, coronary heart disease was **considered a problem for men**.
- Therefore **women were understudied, underdiagnosed, undertreated -> adverse outcomes**.
- **Change** in **representation of women in clinical studies** and **elucidation of gender-based differences** led to **favorable outcomes** have been stunning.
- **Since 2000, CV mortality declined in women**, more so than among males.  
**In 2014, for the first time since 1984, fewer US women died of CV disease compared to men.**
- **Coronary heart disease in women** is characteristically **more complex** than for men.
- In addition to epicardial arteries atherosclerotic obstructive disease, **women have non-obstructive atherosclerosis, microvascular disease** or a combination.
- **The extent to which these features determine the clinical presentations and outcomes** is still unclear, ongoing research is filling the knowledge gap and contributes to improved clinical decision making.



# Cardiovascular Disease Among Women – Is There Still a Gender Bias ?

*Avital Porter, MD*

Head of The Cardiology Unit, and The Women's Heart Clinic,  
Rabin Medical Center- Beilinson and the Tel- Aviv University

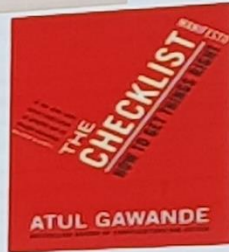




## We can change it

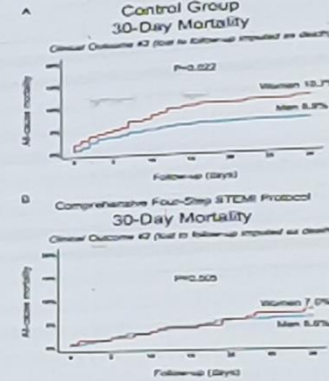
Sex-based differences in quality of care and outcomes in a health system using a standardized STEMI protocol

- Between 2003 to 2016, 4,918 consecutive STEMI patients in the Minneapolis Heart Institute were treated according to standardized STEMI protocol
- Treatment disparities between men and women are diminished by using a standardized STEMI protocol



### Four-Step Protocol for Disparities in STEMI Care and Outcomes in Women

Figure 1—30-Day Mortality in 308 Segmented Deaths



Am Heart J. 2018;191:30-6.

JACC (2018), doi: 10.1016/j.jacc.2018.02.039

## We Can we close the gap

- We should not consider the variable "sex" as just a confounder.
- The underrepresentation of women needs to be avoided.
- Sex-specific research, and adjustment in risk models can improve biases



Strategies and Methods for Clinical Scientists to Study Sex-Specific Cardiovascular Health and Disease in Women

Rebecca A. Wiggins, MD, PhD, Associate Professor, MGH, Harvard Medical School, Boston, MA  
Virginia M. Wilton, PhD, C. Ford Woody, MD, PhD

## The importance of dedicated heart centers for women

- Personalized sex- and gender-specific care of CVD conditions that predominantly, (exclusively), affect women.

### 1) Prevention of CVD:

- Pregnancy outcomes,
- hormonal changes,
- breast cancer (active disease and survivors),
- autoimmune disorders.
- Psychological and social issues

### 2) Diagnosis and treatment of women- specific CVD patterns.

Women's Heart Clinics offer unique settings in which comprehensive CVD care and education are delivered.

## Summary

- The emerging recognition of sex-based disparities in the treatment and survival from heart disease has underscored a knowledge gap in the awareness, prevention, diagnosis, and treatment of heart disease in women.
- In addressing gender bias/ disparities in cardiovascular disease, it is pivotal to define how a difference creates a disparity.
- **As clinicians we are not immune to bias** (conscious and un-conscious) which may play a role in treatment decisions, and contribute to understand existing disparities in the care of women.
- By increasing awareness of CVD in women, improving adherence to sex-specific guidelines, and Including more women in trials, **we can narrow existing disparities!**



**Women's Heart Clinic - Mayo Clinic**

<https://www.mayoclinic.org/departments-centers-clinical-specialties/heart-disease>  
Heart disease is the No. 1 killer of **women**. Making a unique practice, the **Women's Heart Clinic**,

**Women's Heart Clinic - National Heart**

<https://www.nhcs.com.sg/.../clinicalspecialties>  
The **Women's Heart Clinic** aims to empower women to make an appointment, please contact our NHC

**Johns Hopkins Women's Cardiovas**

[https://www.hopkinsmedicine.org/heart\\_vasc](https://www.hopkinsmedicine.org/heart_vasc)  
Even as **women** spend time and energy managing their own potential cardiovascular risks. At the

**Does your hospital have a Women's**

<https://myheartsisters.org/2016/10/16/women>  
Oct 16, 2016 - **Women's Heart Clinics** are not. According to the **US** Preventive Services Task

**Women's heart centers - Harvard H**

[https://www.health.harvard.edu/newsletter\\_article](https://www.health.harvard.edu/newsletter_article)  
Dec 20, 2016 - ... identified 20 Centers of Excellence **States**. ... Cedars-Sinai **Women's Heart Center** ... Mercy Hospital: Allina Hospitals and Clin

**Emory Women's Heart Center — W**

<https://www.emoryhealthcare.org/centers-programs>  
Find **women's heart** healthcare at Emory's West Campus. ... risk screenings to African-American **women** in Metro Atlanta. ... At the Integrated Memory Care

**Women's Heart Health Clinic - UAB Medicine**

[women-s-heart-health-clinic](#) ▼

in the **United States**, accounting for one in five deaths of ...

[services/womens-heart-health](#) ▼

**n's heart** health choose The University of ... A menopause **clinic**, in which

**Program**

[/women/](#) ▼

Our program has four major focus areas: ... research; National ...

**are**

[heart-health.html](#) ▼

**heart** conditions, we ... We are the only center in the ... We work with these doctors in

**diology - Rochester, NY ...**

[Patient Care > Programs](#) ▼

... by three **women** and affects 43 million women. ... ue signs ...

... e · Myth Busters · Our Stories · Changing

**General Health**

[Women's-Heart-Health-Clinic.aspx](#) ▼



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... Lancaster General Health is the area's leader in cardiovascular services. Medical and surgical treatment is offered for a wide variety of **heart** conditions including



### Fairview Hospital

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Cleveland, Ohio 44111  
216.476.7932  
fairviewhospital.org

### Lakewood Hospital

14519 Detroit Avenue  
Lakewood, Ohio 44107  
216.529.8500  
lakewoodhospital.org

### Lutheran Hospital

1730 W. 25th Street  
Cleveland, Ohio 44113  
216.363.5757  
lutheranhospital.org

Free parking is available  
at all locations.

Services are provided  
Monday through Friday  
(excluding holidays) from  
7:30 a.m. – 5 p.m.

# Men's Preventive Heart Clinic

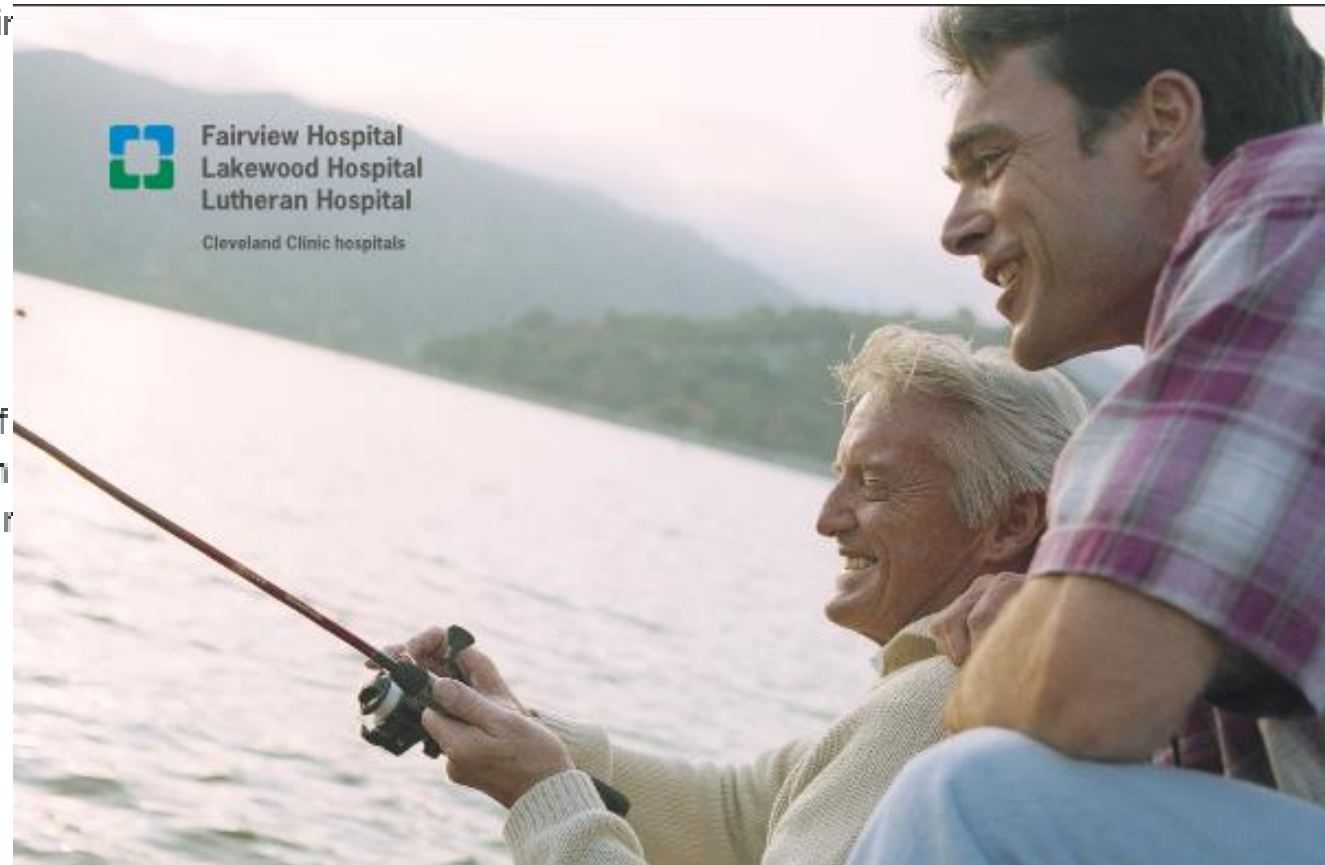
Each man who comes to our Heart Clinic will receive personalized care from our team of cardiac nurses, who will help you understand the risks associated with heart disease.

After reviewing your medical history, the cardiac nurse will conduct a thorough physical and screening.

Screening includes:

- Complete lipid profile and blood sugar
- Blood pressure and heart rate
- EKG
- Body Mass Index (BMI)
- Stress Assessment

**The screening cost is \$35.** At the end of the screening, you will receive a personalized cardiac health referral to any appropriate providers you r



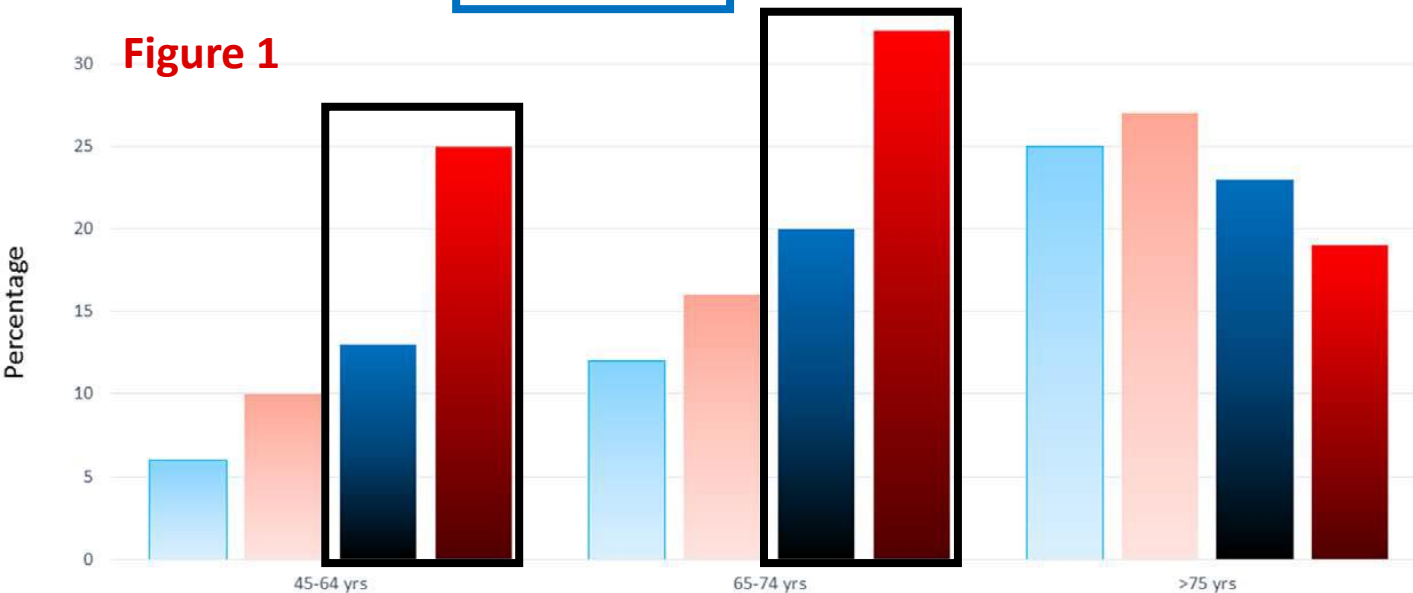
# השאלות

1. מה הפערים באוכלוסיות אחרות?

2. האם באמת יש פער בארץ?

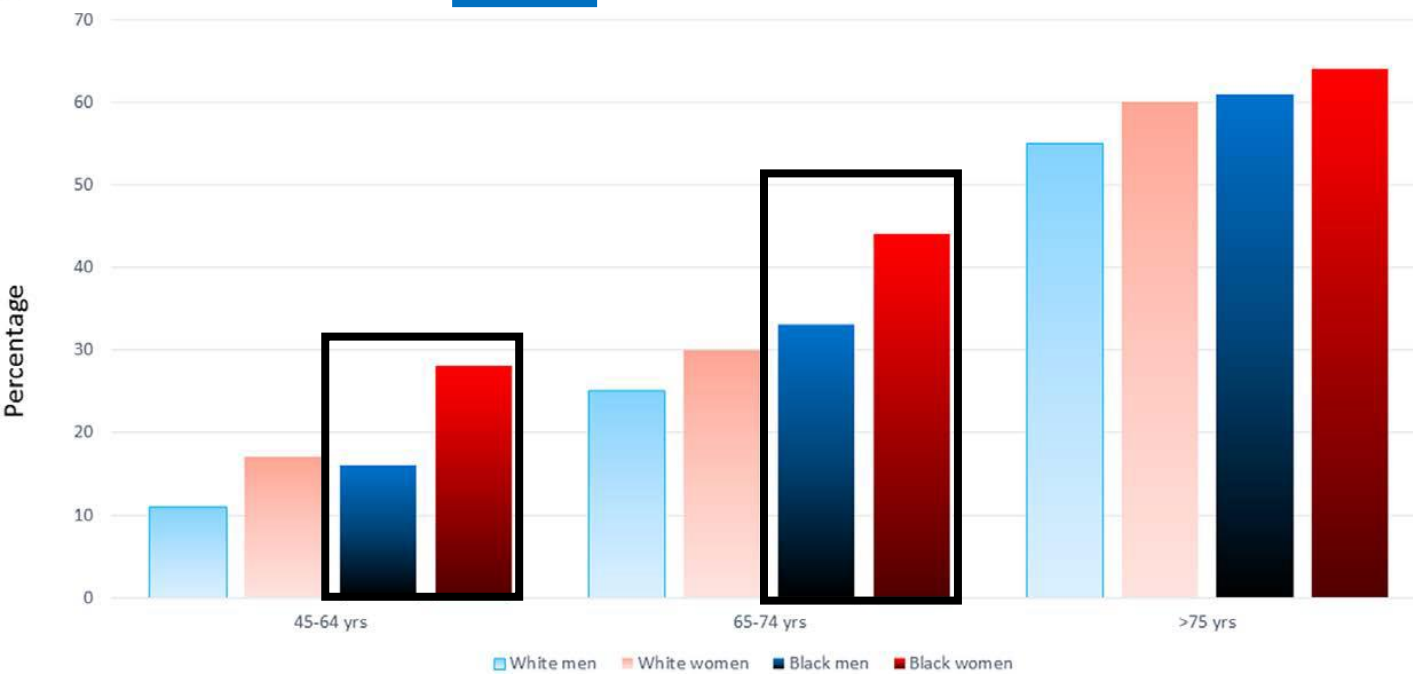
3. האם הדרך לטפל בפער בנושאים אלה הינו הקמת מרפאות לב יחודיות לנשים?

**A** 5 year incidence of heart failure after first MI by age, sex and race



Aggarwal et al; Sex Differences in Ischemic Heart Disease  
*Circ Cardiovasc Qual Outcomes*. 2018

**B** 5 year incidence of death after first MI by age, sex and race

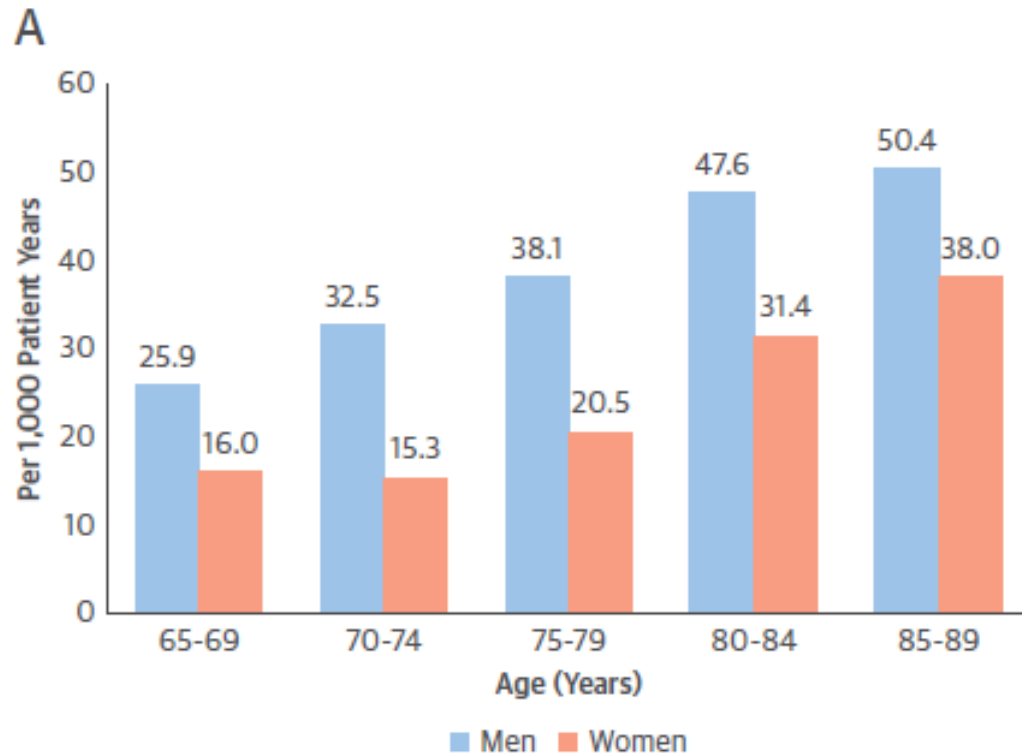


Benjamin et al; AHA Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics-2017 update: a report from the American Heart Association.  
*Circulation* 2017

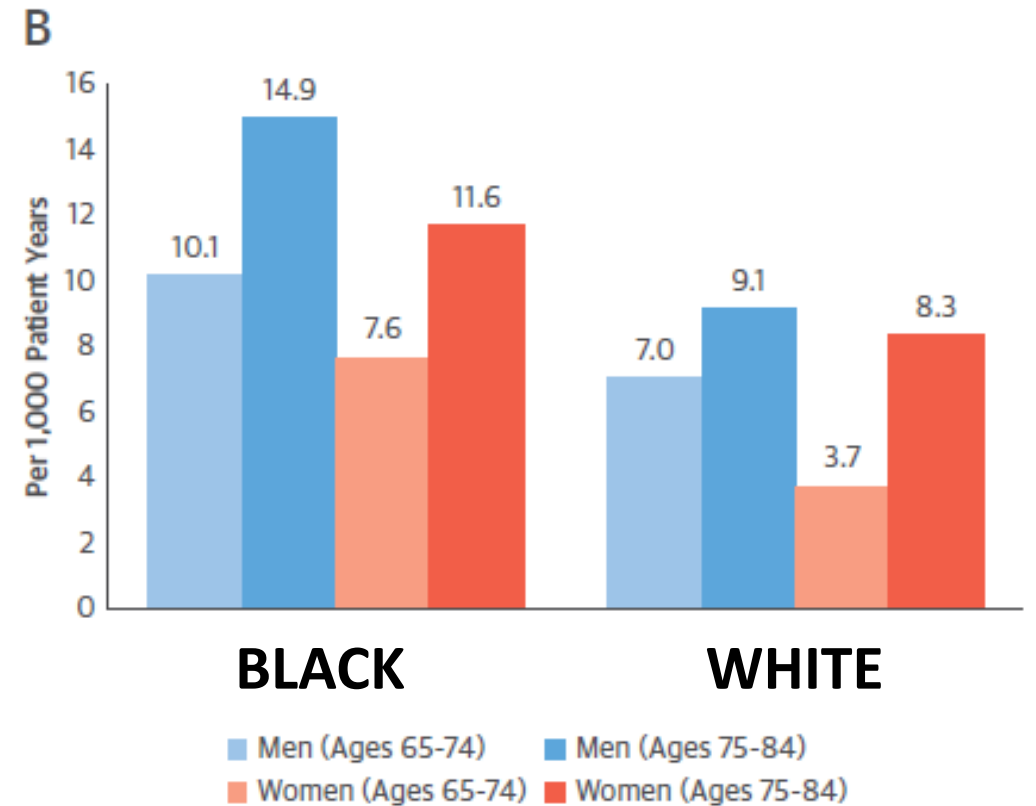
White men      White women  
Black men      Black women



**FIGURE 3** Incidence of Symptomatic Coronary Artery Disease



(A) The **incidence of coronary heart disease** (coronary revascularization, myocardial infarction, angina, or coronary artery disease–related death) in patients **65 to 89 years of age** from the CHS (Cardiovascular Health Study) between the years 1989 and 2000.



(B) Data on the **incidence rates of MI** in patients **65 to 84 years of age** by **age, race and sex** from the ARIC (Atherosclerosis Risk in Communities) study between the years 2005 and 2013.

**We offer programs designed to provide disease prevention, and management as well as wellness programs for seniors, and health literacy training.**



Events, Classes & Workshops

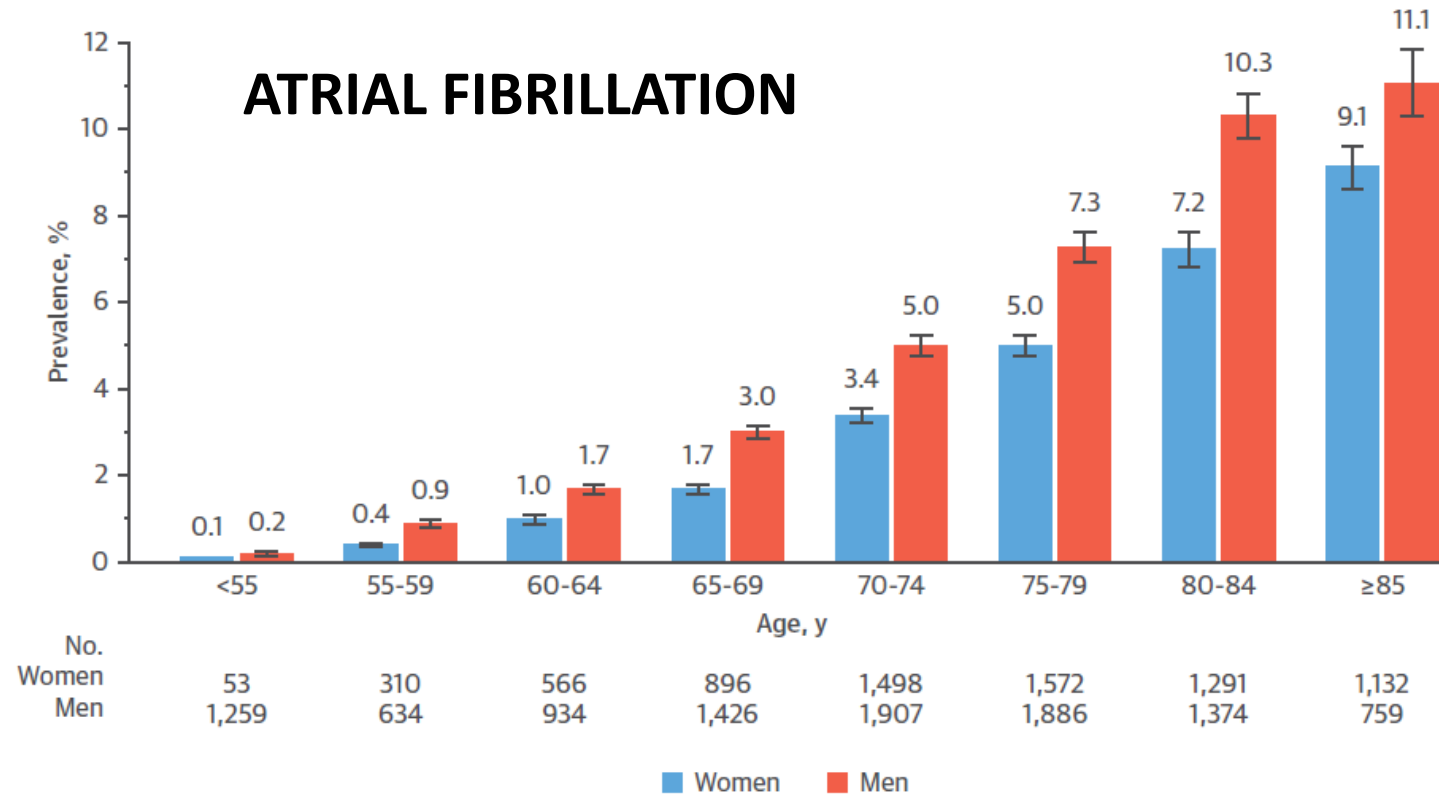


May 2018



**FIGURE 4** Prevalence of Diagnosed Atrial Fibrillation Stratified by Age and Sex

## ATRIAL FIBRILLATION



STROKESTOP study (population-based screening of 75 year-old patients)  
increased the detection of AF by 33% and highlighted the preponderance of asymptomatic AF in the elderly.

**Female sex**, lower weight, and absence of vascular disease were **significantly associated with no detection of AF**.

AF is the most common arrhythmia in the elderly, affects 10% over  $\geq 80$ .  
Increased risk of stroke, heart failure, and with a decline in physical performance, cognitive ability, disability-free survival and higher mortality.

**Elderly with AF tend to have atypical presentations**, palpitations present in only 10%.

JACC STATE-OF-THE-ART REVIEW Curtis et al Arrhythmias in Patients  $\geq 80$  Years of Age Pathophysiology, Management, Outcomes

Go et al. Prevalence of diagnosed AF in ATRIA Study. JAMA 2001

Svennberg et al, The STROKESTOP Study. Circulation 2015



Gender differences in the long-term outcomes after valve replacement surgery HEART 2009

A Kulik,<sup>1</sup> B-K Lam,<sup>1</sup> F D Rubens,<sup>1</sup> P J Hendry,<sup>1</sup> R G Masters,<sup>1</sup> W Goldstein,<sup>1</sup> P Bédard,<sup>1</sup> T G Mesana,<sup>1</sup> M Ruel<sup>1,2</sup>

ABSTRACT

**Objective:** To compare the long-term outcomes in women and men after valve replacement surgery.

**Design:** Observational study.

**Setting:** Postoperative aortic valve replacement (AVR) and mitral valve replacement (MVR).

**Patients:** 3118 patients (1261 underwent AVR or MVR between 1990 and 1999, 863 MVR), with mean follow-up of 5.6 years.

**Main outcome measures:** The influence of gender on the risk of long-term mortality (myocardial infarction, stroke and death) after valve replacement, using multivariate actuarial methods.

**Results:** After implantation of aortic valve replacement, women had a significantly higher risk of mortality compared to men (comorbidity index 0.4; 95% confidence intervals (CI) 0.3 to 0.6). If an aortic mechanical prosthesis was implanted, women were more at risk for mortality (HR 1.7; CI 1.1 to 2.7). After mitral valve replacement, co-morbidities, women had significantly better survival compared to men after valve replacement (HR 0.5; CI 0.3 to 0.6), but there were no differences between genders after mechanical valve replacement towards better survival for women (HR 0.6; CI 0.4 to 1.0) and (HR 0.5 to 1.1).

**Conclusion:** The long-term outcomes after valve replacement surgery differ between women and men. Although women have more late mortality after valve replacement, they undergo fewer reoperations and have better overall long-term survival compared to men.

Patients: 1261 women, 1857 men underwent 2255 AVR, 863 MVR, with mean follow-up of 5.6 years.

Long-term outcomes differ between women and men. Though women have more late strokes after valve replacement, they undergo fewer reoperations and have better overall long-term survival compared to men.

in the long-term outcomes after heart valve replacement. The purpose of the study was to compare the long-term outcomes after valve replacement surgery, as well as overall survival.

118 adult patients who underwent aortic valve replacement surgery were performed at the Heart Institute between 1990 and 1999. 1261 women and 1857 men had AVR and 863 had MVR; 118 had concurrent CABG. All patients were included from the study. The main objective of this study is on the long-term outcomes of aortic valve surgery, and much has been written about the subject of gender and outcomes. We also received prostheses that were available (for example, St Jude Medical) to improve the generalisability of the study. Patients who underwent more than one operation were similarly included and were implanted and

VALVE DISEASE

Influence of patient gender on mortality after aortic valve replacement for aortic stenosis

Jennifer Higgins, MD, W. R. Eric Jamieson, MD, Osama Benhameid, MD, Jian Ye, MD,

Thorac Cardiovasc Surg 2011

**Objective:** To assess the influence of gender on mortality after aortic valve replacement for aortic stenosis.

**Methods:** Aortic valve replacement for aortic stenosis.

PATIENTS: 2195 men and 1148 women

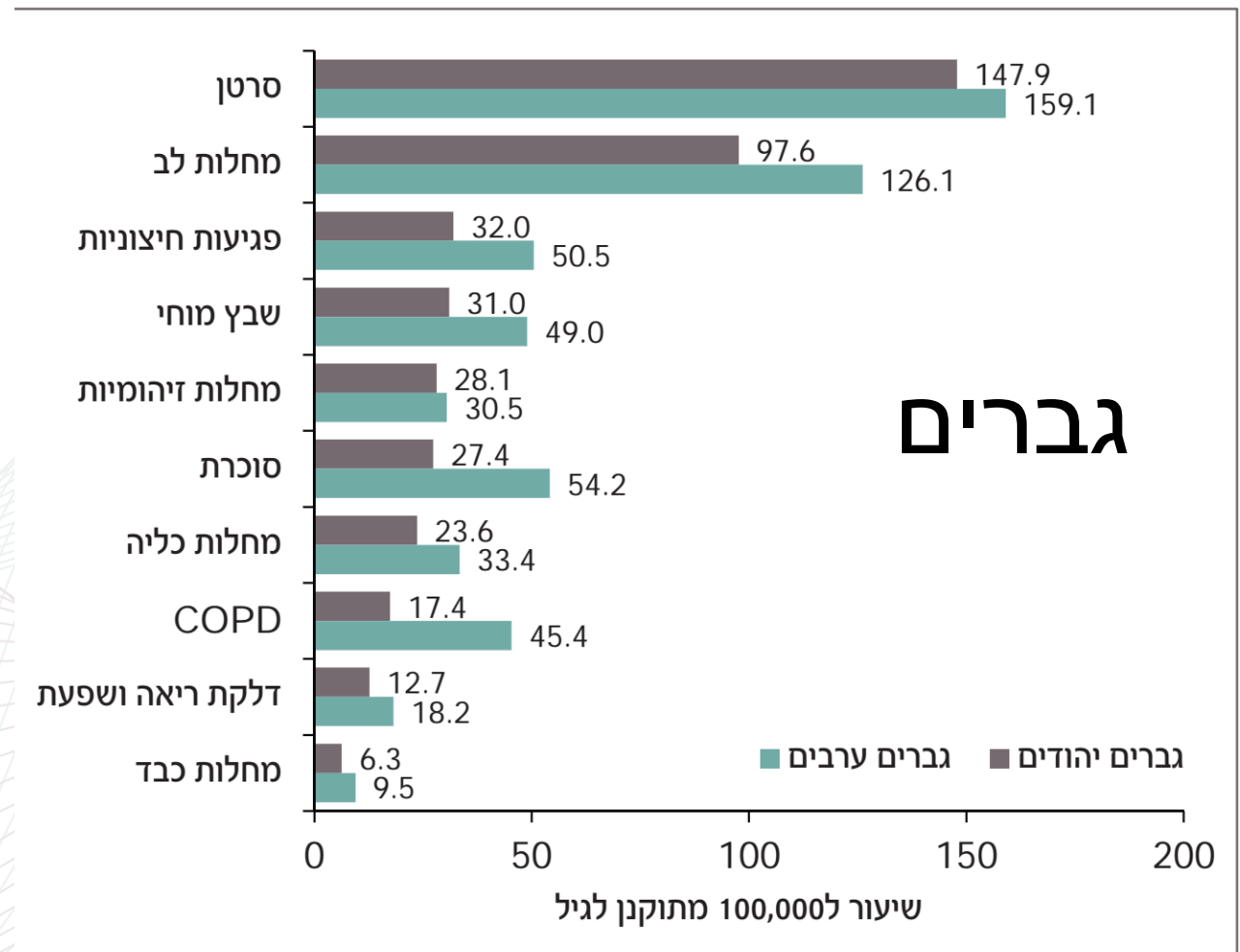
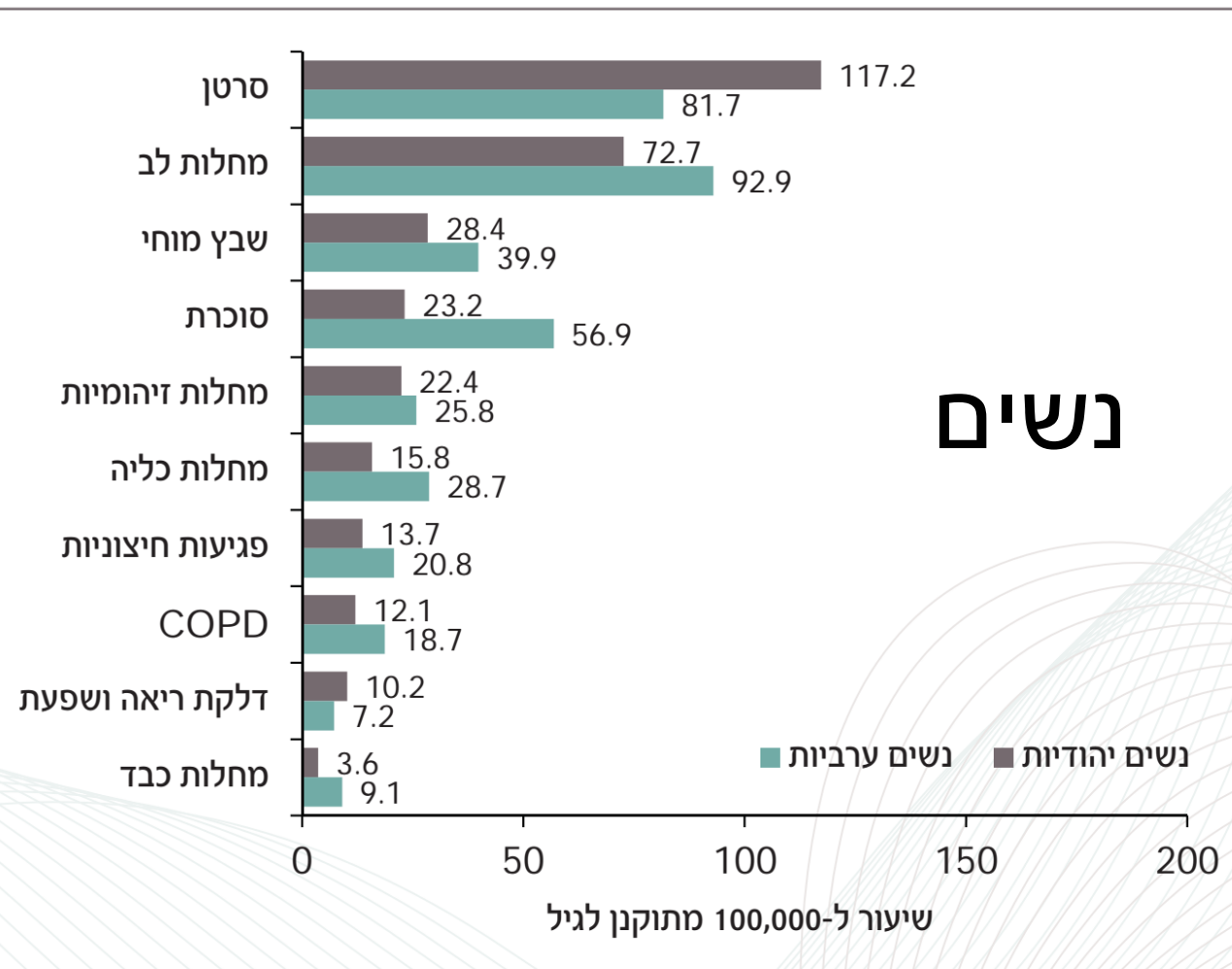
CONCLUSIONS:

The independent predictors of mortality after AVR for AS differed between male and female patients.

Male gender increased the risk of late mortality, and a valve size of  $\leq 21$ mm increased the risk of early and overall mortality among the male patients only.

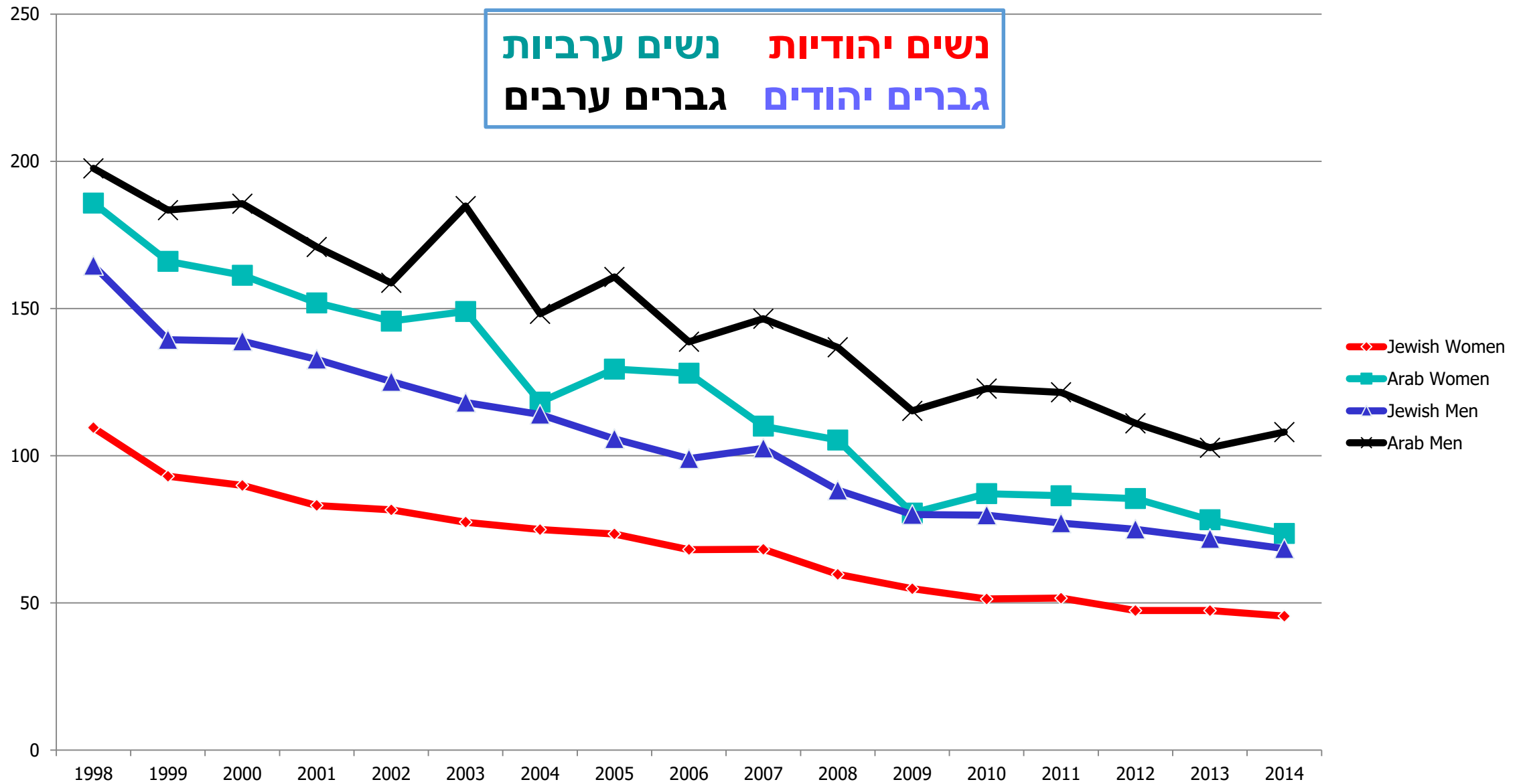
These differences need to be taken into consideration preoperatively and require consideration during operative management.

into consideration preoperatively and require consideration during operative management. (J Thorac Cardiovasc Surg 2011;142:595-601)



יהודים בשחור, ערבים בירוק

# Mortality from Cardiovascular Disease in Israel



Adjusted mortality extracted from cbs.gov.il



# SO WHAT SHOULD WE DO?

Have Clinics for

Men

Young

I DON'T THINK SO

blacks

Middle aged

Old

Jews

White

women

Arab

sh

# Personalized Medicine



## Personalized Medicine

Individual variation is confirmed in our genes, environment and lifestyle

Thus, it is not surprising that one size does not fit all

- **Personalized medicine**, aims to consider all **individual risk factors**, including ethnicity, lifestyle, personal history, risk profiles, and genetic disposition, **should also include the role of gender.**
- **Looking forward, individualized clinical care algorithms and care plans based on individual risk profiles should be developed on top of gender-based assessments.**

A Debate: Argument in Support of Personalized and Digital Medicine is the Answer by **Robert Roberts JACC 2017**





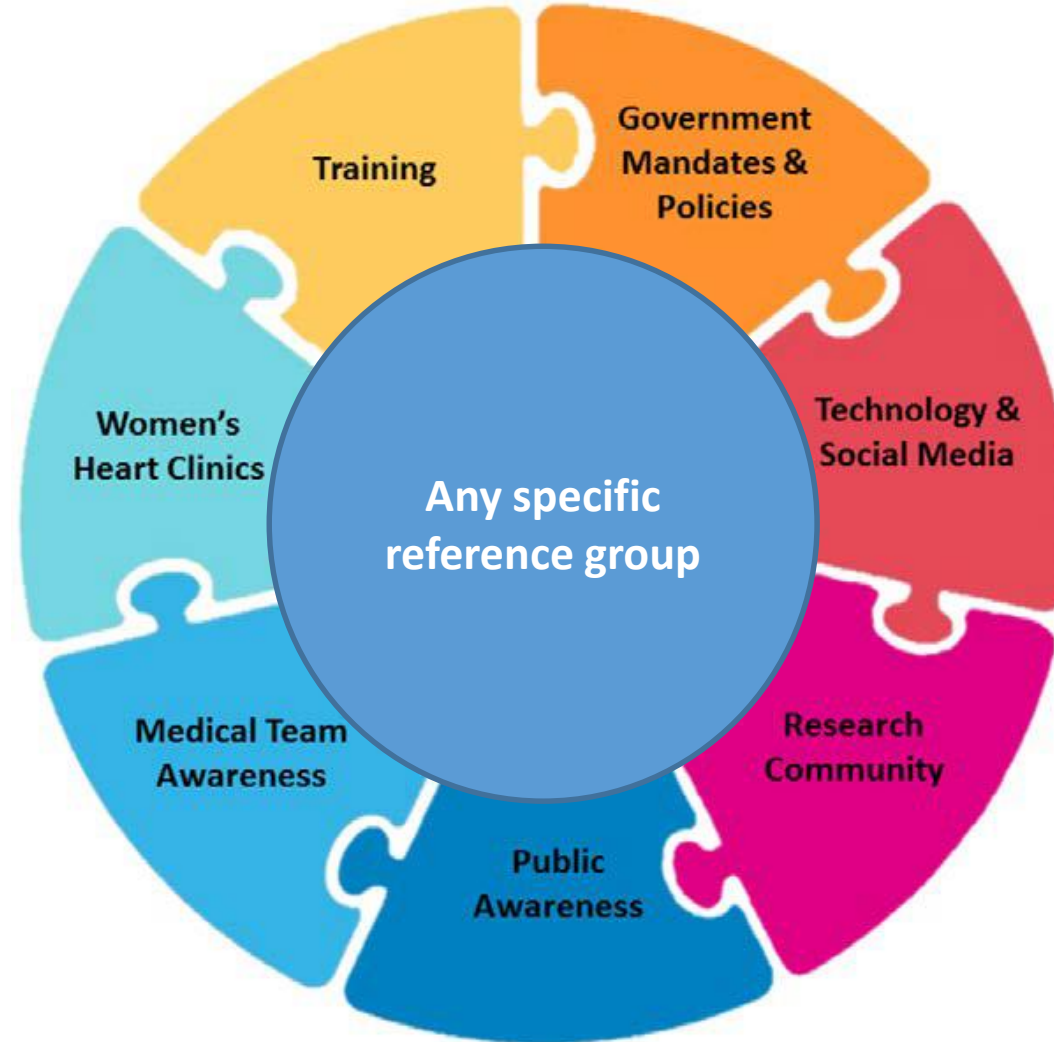


# CONCLUSIONS

- Sex- and gender-specific disparities in outcome persist, **particularly, in subsets of women disadvantaged by race, ethnicity, income level, and educational attainment.**
- **There is a need for improved recognition** of the unique biological risk factors, differences in pathophysiology of IHD, and unique challenges of sex- and gender-specific delivery of care in women. Increasing awareness of the unique aspects of women's IHD in the public and medical community to include the tenets of health and cultural literacy and improve adherence to prevention, diagnostic, and treatment guidelines are instrumental to improving women's heart health.
- **Advancing the focus** on sex- and gender-specific CVD research beyond conventional biomedical models **to incorporate the social determinants that affect** a woman's **health** and establishment of **health policies which facilitate** a sex- and gender-based patient-centered **personalized model** will result in **equitable IHD outcomes and care** for women.

# Solutions to equitable care for women.

A multifaceted approach is required to achieve equitable cardiac care for women.



**Figure 6**

# My conclusions:

Women are different from men, White are different from black,  
Secular are different from observant etc...

**What should be done so that we insure the correct medical care for all?**

Not excluding each group out and giving it a “special” clinic

BUT

1. Acknowledge the difference and study it

2. Make sure research is conducted to include enough patients of each group

3. Teach about these differences in all levels of medical education

4. Prepare and implement relevant guidelines when needed

**We need to make sure we give the best care to all**





MSIH is a unique medical school that **prepares physicians to address the impact of cultural, economic, political and environmental factors on the health of individuals and populations worldwide.**

It incorporates **core global health courses** into all 4 years of the M.D. program.

- בית הספר מחנך את הסטודנטים לאורך 4 שנותיהם בפקולטה, להכיר בשונה, להיות ער למערכת הדעות הקדומות שלהם ולמערכת החיים והערכים ממנה בא המטופל.
- התוכנית נותנת לסטודנט כלים להתמודד עם השונה וכך הם מגיעים מוכנים ומודעים להיבטים השונים שלהם ושל המטופלים, מה שמאפשר הבנה ותקשורת טובים יותר.

# REX HARRISON JULIE ANDREWS MY FAIR LADY

adapted from Bernard Shaw's "Pygmalion"



book and lyrics by: **Alan Jay Lerner**  
music by: **Frederick Loewe**  
production staged by: **Mass Hart**

choreography and musical numbers by: **Harve Harsh**  
production designed by: **Oliver Smith**  
costumes designed by: **Leslie Beaton**

musical director: **Frank Miller**  
orchestrations: **Robert Russell Bennett**  
dance music arrangements: **Thyde Krimm**

with **Stanley Holloway**  
**Robert Coote**

produced for records by **Goldberg Latham**





# "Why Can't a Woman Be More Like a Man?"

music by Frederick Loewe; lyrics by Alan Jay Lerner

My Fair Lady (1964)

PROFESSOR HIGGINS:

Why can't a woman be more like a man?  
Men are so honest, so thoroughly square;  
Eternally noble, historically fair.  
Who, when you win, will always give your back a pat.  
Why can't a woman be like that?

Why does every one do what the others do?  
Can't a woman learn to use her head?  
Why do they do everything their mothers do?  
Why don't they grow up, well, like their father instead?

Why can't a woman take after a man?  
Men are so pleasant, so easy to please.  
Whenever you're with them, you're always at ease.



<https://www.youtube.com/watch?v=EcpwuK1Fmx4>





THANK  
YOU

AND

SEE YOU NEXT  
YEAR

