



# **CLOSE THE GAP**

Health equity for life

## **Care of Women with Cardiovascular Disease**

**Ali Tabrizchi**

**Interventional Cardiologist**

**Director, Cardiovascular Assoc. of MD**

**Sinai Hospital of Baltimore**

# Agenda

## Welcome

- Dispelling the Myths
- The Scope of the problem – Cardiovascular Disease in Women
- Recognizing Cardiovascular Disease in Women
- Treatment Options
- Questions and Answers

## TRUE OR FALSE?

Heart disease is something that only men need to be concerned about.

**FALSE**

**Heart disease is the #1 killer of women,  
*causing 1-in-3 deaths each year.***

## TRUE OR FALSE?

Cancer is more deadly to women.

**FALSE**

**More women die from heart disease (419,730)**

than from these 3 causes of death combined: cancer, all forms (271,210); Alzheimer's (57,919) and chronic lower respiratory disease (73,968).

## TRUE OR FALSE?

Men and women have the same heart attack symptoms.

**FALSE**

**64% of women who die suddenly of coronary heart disease had no previous symptoms.**

## TRUE OR FALSE?

There is nothing I can do about heart disease.

**FALSE**

**Making healthy changes in women's lives  
may reduce their risk for heart disease  
as much as 80%.**

## TRUE OR FALSE?

All women have the same risk of heart disease.

**FALSE**

Hispanic women are likely to develop heart disease  
**10 years earlier** than non-Hispanics.

Cardiovascular disease deaths are highest, *regardless of age*, in African Americans. In fact, they have almost  
**2x more risk of stroke than White Americans.**

## TRUE OR FALSE?

Women should only worry about plaque buildup in blood vessels of their heart.

**FALSE**

Women may also be at risk for Peripheral Artery Disease (PAD) when plaque builds up in blood vessels of their arms and legs. In fact, women with PAD are **2-to-3 times more likely to have a stroke or heart attack than those without it.**





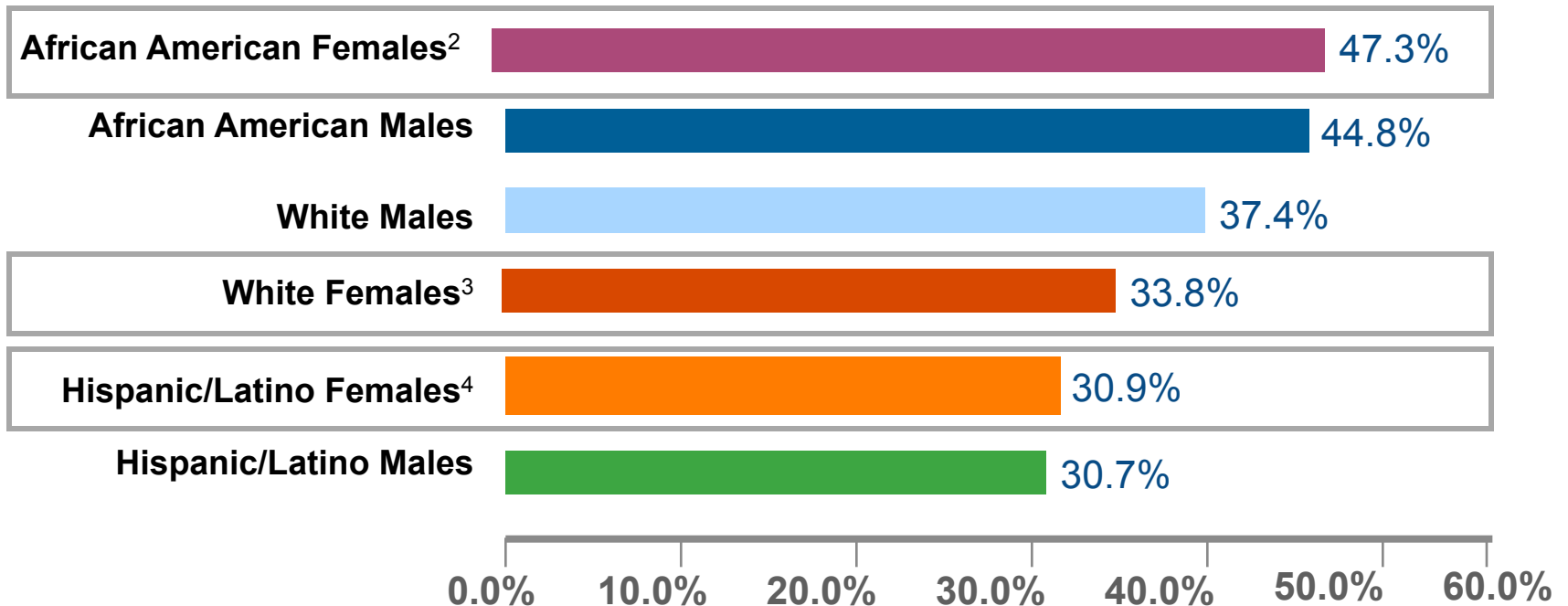
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# **The Scope of The Problem**

## Cardiovascular Disease in Women

Heart disease is the leading cause of death for women and men, regardless of race and ethnicity

## 82.6 Million American Adults Have Heart Disease<sup>1</sup>

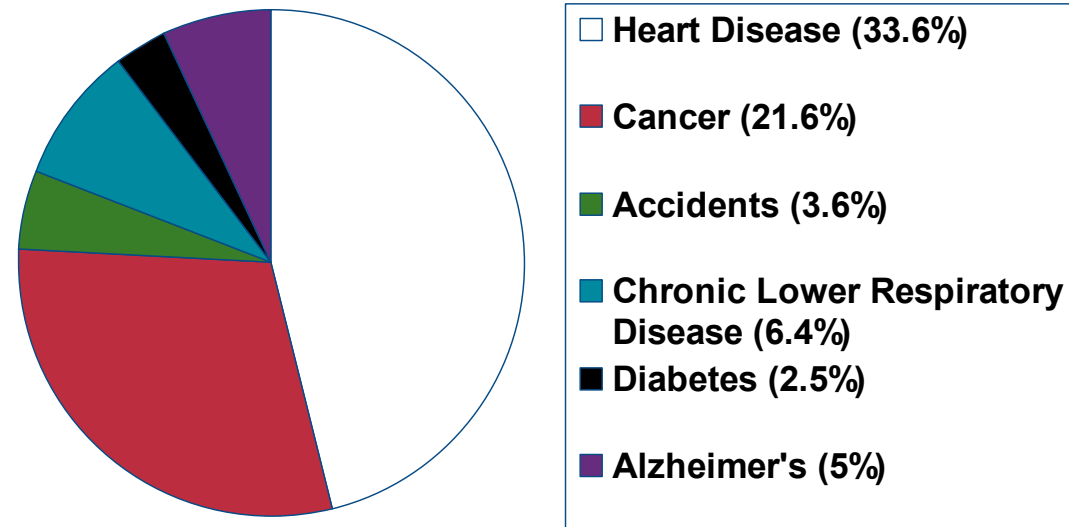


1. American Heart Association. Heart Disease and Stroke Statistics-2012 Update
2. American Heart Association. African Americans and CVD – 2012 Statistical Fact Sheet
3. American Heart Association. Whites and CVD – 2012 Statistical Fact Sheet
4. American Heart Association. Hispanics/Latinos and CVD – 2012 Statistical Fact Sheet

# Heart Disease: The Leading Cause of Death



## AMERICAN WOMEN



**1-in-2 women will die of heart disease or stroke,  
compared with  
1-in-25 women who will die of breast cancer.**

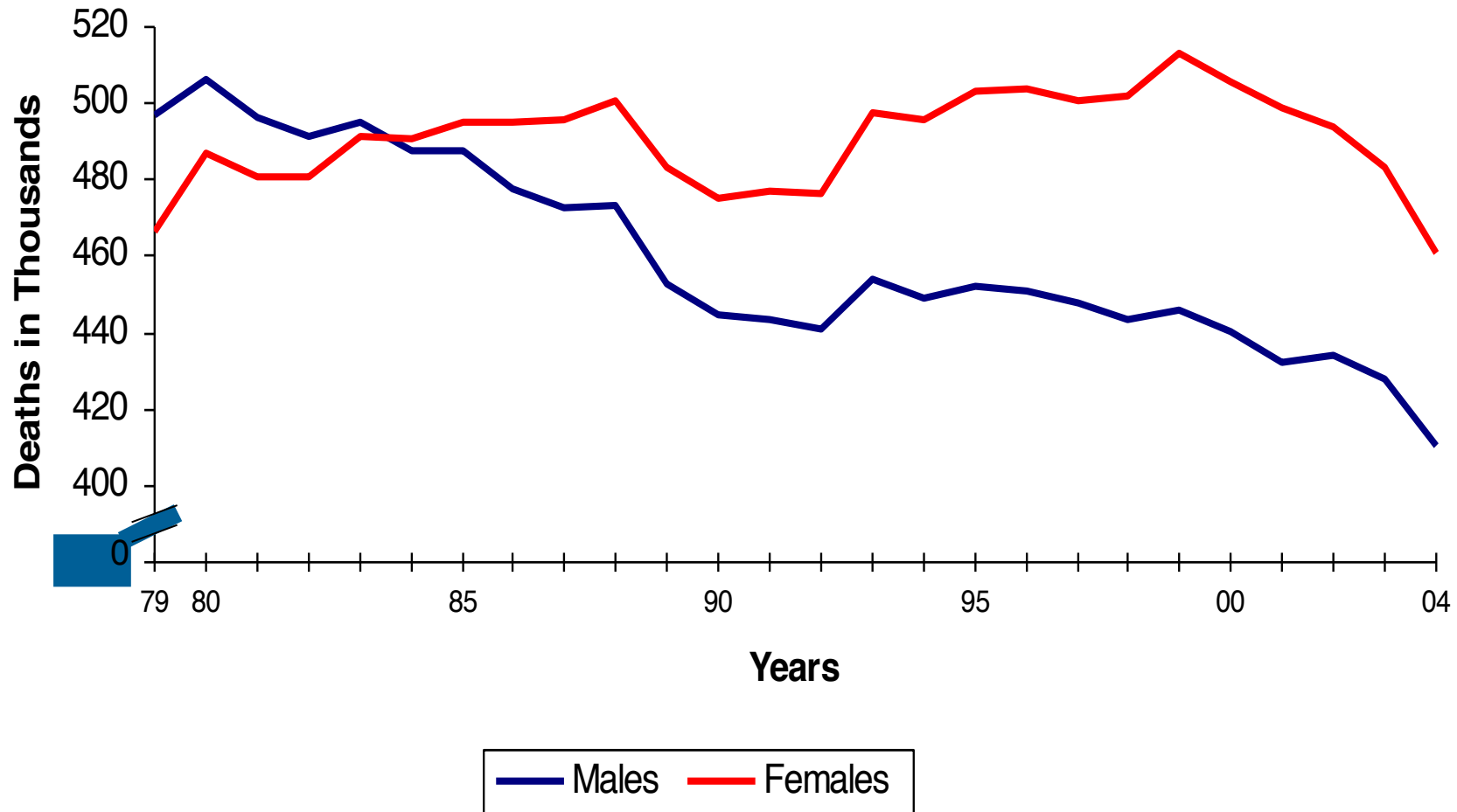
U.S. Department Health and Human Services, Agency for Healthcare Research and Quality

American Heart Association. Hispanics/Latinos and CVD – 2012 Statistical Fact Sheet

# Cardiovascular disease mortality trends for males and females (United States: 1979-2004).

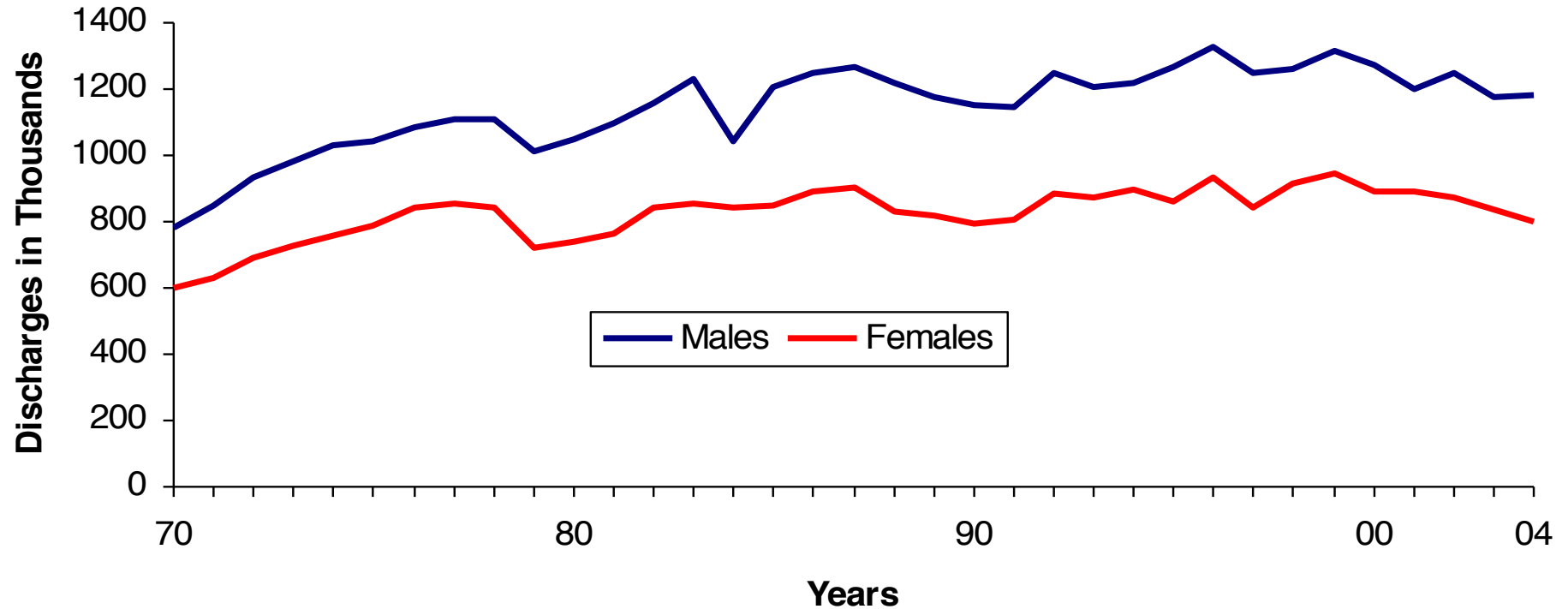


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Source: NCHS and NHLBI.

# Hospital discharges for coronary heart disease by sex (United States: 1970-2004)



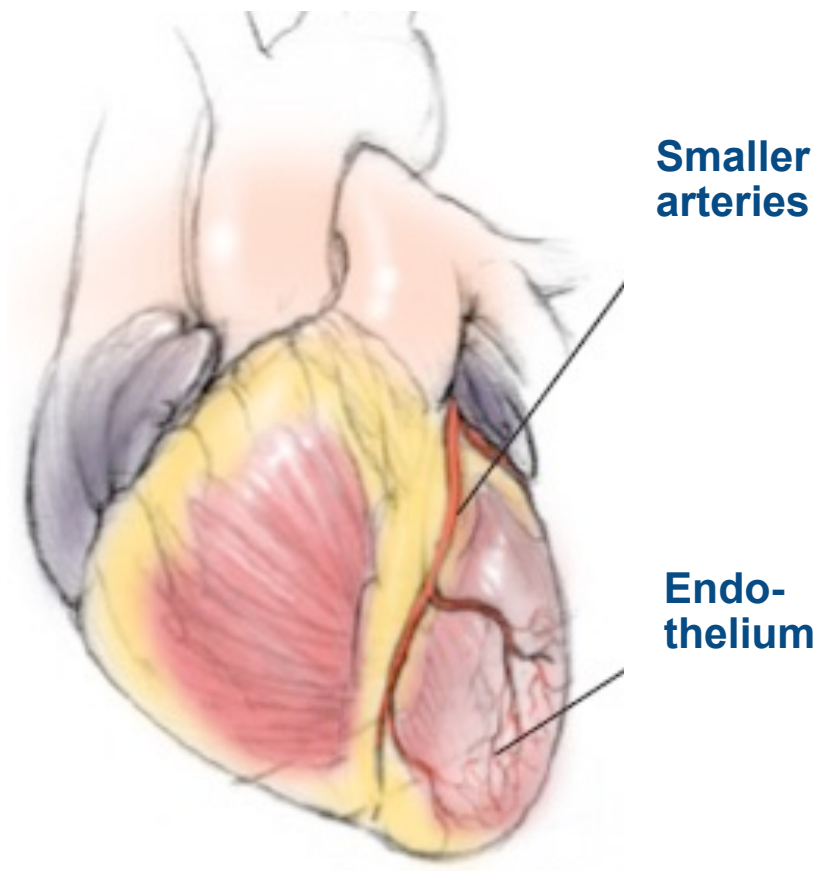
**Note: Hospital discharges include people discharged alive, dead, and status unknown.**



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# Recognizing Cardiovascular Disease in Women

- After correcting for body surface area, women' arteries are smaller
- This can seriously affect symptoms from anything that reduces diameter
  - Stenosis
  - Endothelial dysfunction



- Presentation and differences from men
- Women are more prone to non-cardiac chest pain.....
- In fact they may experience little or no squeezing chest pain in the center of the chest, lightheadedness, fainting, or shortness of breath with an MI



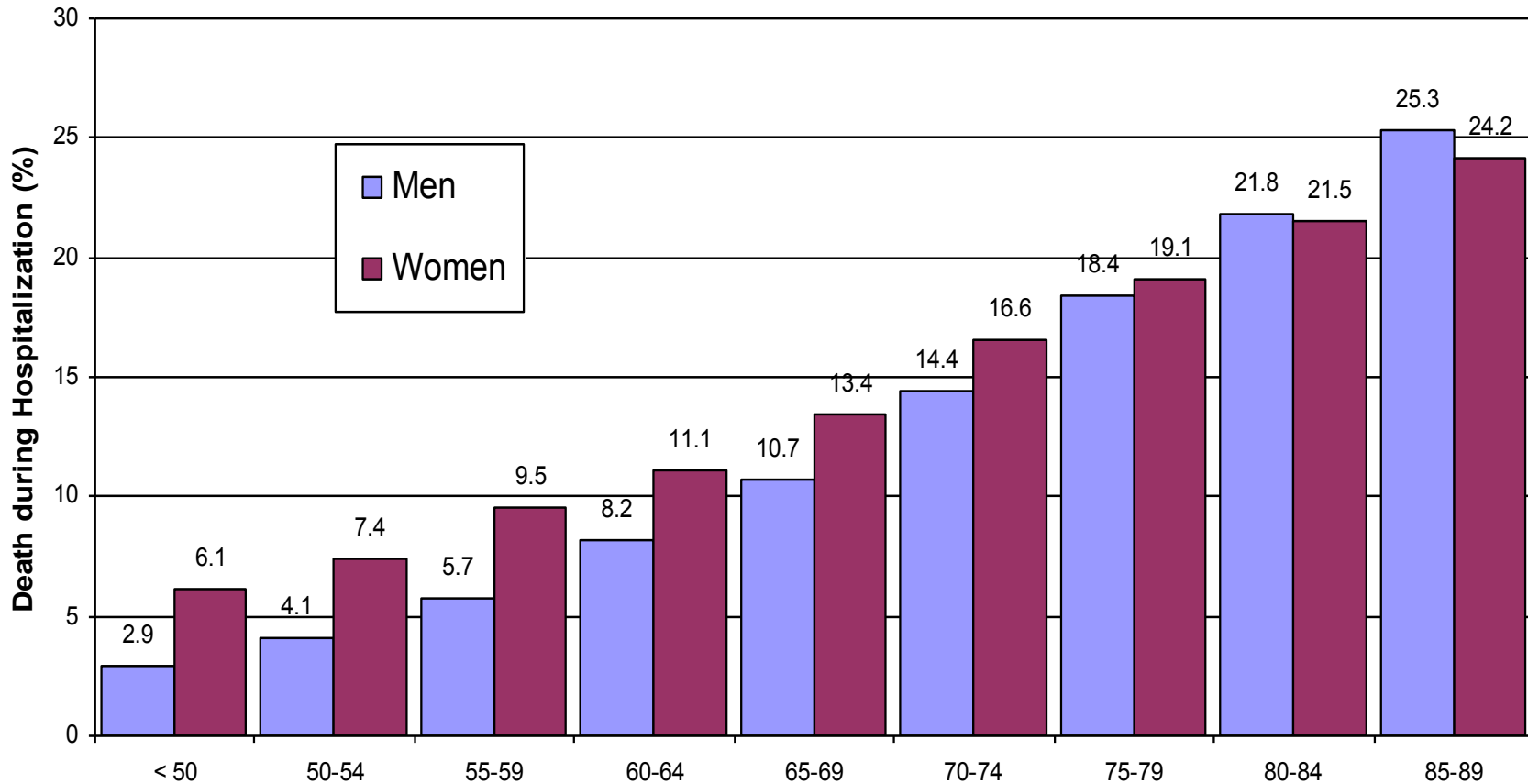
# Not so straightforward

- Because of these *atypical symptoms*, women seek medical care *later* than men and are more likely to be misdiagnosed.
- Women presenting with MI and CAD are more likely to be older, have a history of DM, HTN, Hyperlipids, CHF, and unstable angina than male counterparts.  
(J Am Coll Cardiol 1997;29)
- Because of these *comorbid conditions*, there tends to be diagnostic confusion.

- Women were less likely to have an EKG or be admitted to the telemetry floors.
- Women are under-diagnosed and can therefore get a false sense of security.
- Less aspirin, beta-blockers, statins, antiarrhythmic treatment, cardiac cath, PTCA, CABG
- Women were less likely to enroll in cardiac rehabilitation after an MI or bypass surgery.

# AMI Mortality in Younger Women

**Women aged 55 and younger hospitalized with an AMI are twice as likely to die in the hospital as compared with similarly aged men.**



**Figure 1.** Rates of death during hospitalization for Myocardial Infarction among women and men, according to age. The interaction between sex and age was significant ( $P < 0.001$ ).



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# Treatment Options



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## **AHA Guideline**

# **Effectiveness-Based Guidelines for the Prevention of Cardiovascular Disease in Women—2011 Update**

## **A Guideline From the American Heart Association**

### **EXECUTIVE WRITING COMMITTEE**

Lori Mosca, MD, MPH, PhD, FAHA, Chair; Emelia J. Benjamin, MD, ScM, FAHA; Kathy Berra, MSN, NP;  
Judy L. Bezanson, DSN, CNS, RN; Rowena J. Dolor, MD, MHS; Donald M. Lloyd-Jones, MD, ScM;  
L. Kristin Newby, MD, MHS; Ileana L. Piña, MD, MPH, FAHA; Véronique L. Roger, MD, MPH;  
Leslee J. Shaw, PhD; Dong Zhao, MD, PhD

- Effectiveness versus Evidence based guidelines
- Risk Stratification for CVD:
  - Stratify women into risk categories:
    - High risk
    - At risk
    - Ideal risk
  - High Risk:
    - >10% risk of cardiovascular events over the next 10 years (not 20%)
- Aspirin recommendations
- Anticoagulants in Atrial Fibrillation

# Risk Stratification: High Risk $\geq 1$ High Risk Disease State



- Documented atherosclerotic disease
  - Clinically manifest coronary heart disease
  - Clinically manifest cerebrovascular disease
  - Clinically manifest peripheral arterial disease
  
- Abdominal aortic aneurysm
- **End-stage or chronic kidney disease\***
- Diabetes mellitus
- 10 year predicted CVD risk > 10%

**\*new in 2011**

- $\geq$  1 risk factors for CVD, including (but not limited to):
  - Cigarette smoking
  - SBP  $\geq$  120, DBP  $\geq$  80 or treated hypertension:
  - Total cholesterol  $\geq$  200 mg/dL, HDL  $<$ 50 mg/dL or treated for dyslipidemia
  - Obesity, especially central obesity
  - Poor diet
  - Physical inactivity
  - Family history of premature CVD in a 1st degree relative (CVD at  $<$  55 years in a male relative, or  $<$  65 years in a female relative)



- $\geq$  1 risk factors for CVD, including (but not limited to):
  - Metabolic syndrome
  - Subclinical atherosclerosis
    - Coronary calcification, carotid plaque or thickened IMT
  - Systemic autoimmune collagen-vascular disease (e.g. lupus, rheumatoid arthritis)
  - **Poor exercise capacity on treadmill test and/or abnormal heart rate recovery after stopping exercise\***

**\*new in 2011**

## ***Need all of these:***

Total cholesterol < 200 mg/dL

- BP <120/<80 mm Hg, untreated
- Fasting blood sugar < 100 mg/dL untreated
- Body mass index < 25 kg/m<sup>2</sup>
- Abstinence from smoking
- Physical activity at goal
- Healthy low fat diet

- **< 5% of women are at ideal risk !!**



EKG

Stress testing

Echocardiogram

Cardiac Catheterization/Coronary angiogram

CAT scan- calcium score

MRI of the heart



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# Questions & Answers

# The Tabrizchi Mafia

