

**Rhode Island Hospital**  
**Matters of the Heart Program**  
Women and Heart Disease: The Facts

**ATHENA POPPAS, MD**

Director, Echocardiography

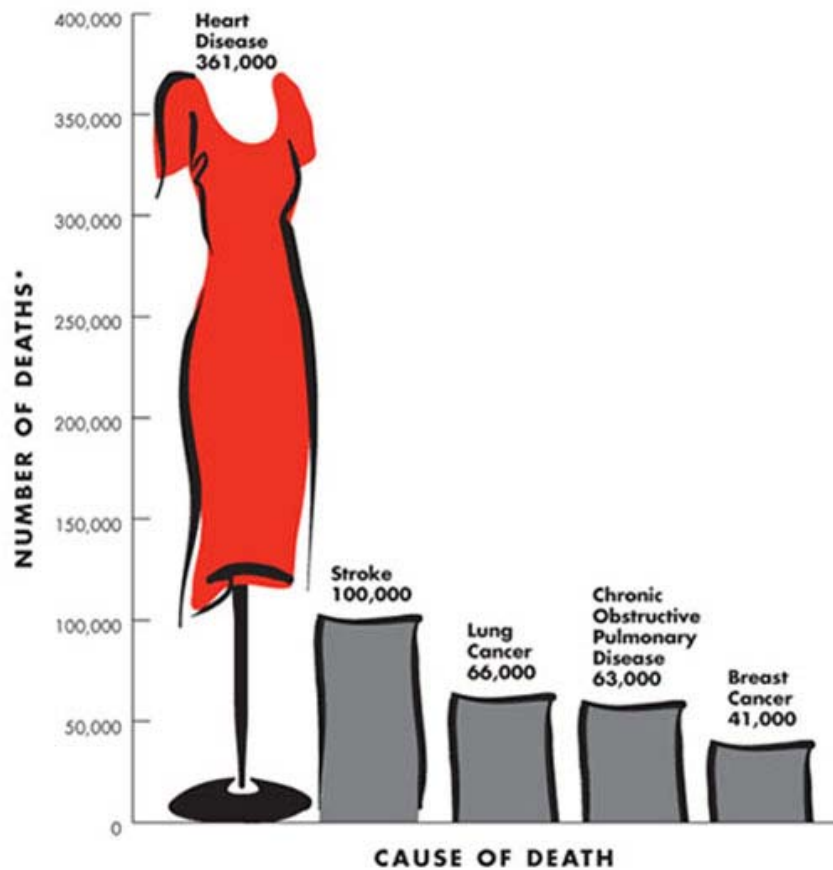
Rhode Island Hospital

Associate Professor of Medicine

Brown University School of Medicine

## LEADING CAUSES OF DEATH FOR AMERICAN WOMEN (2001)

One in three women dies from heart disease. It's the #1 killer of women, regardless of race or ethnicity. It also strikes at younger ages than most people think, and the risk rises in middle age. And, two-thirds of women who have heart attacks never fully recover.



To learn more, visit [www.hearttruth.gov](http://www.hearttruth.gov)

Source: The Healthy Heart Handbook for Women, National Heart, Lung, and Blood Institute (2004).

\*Numbers of deaths are rounded to the nearest thousand.

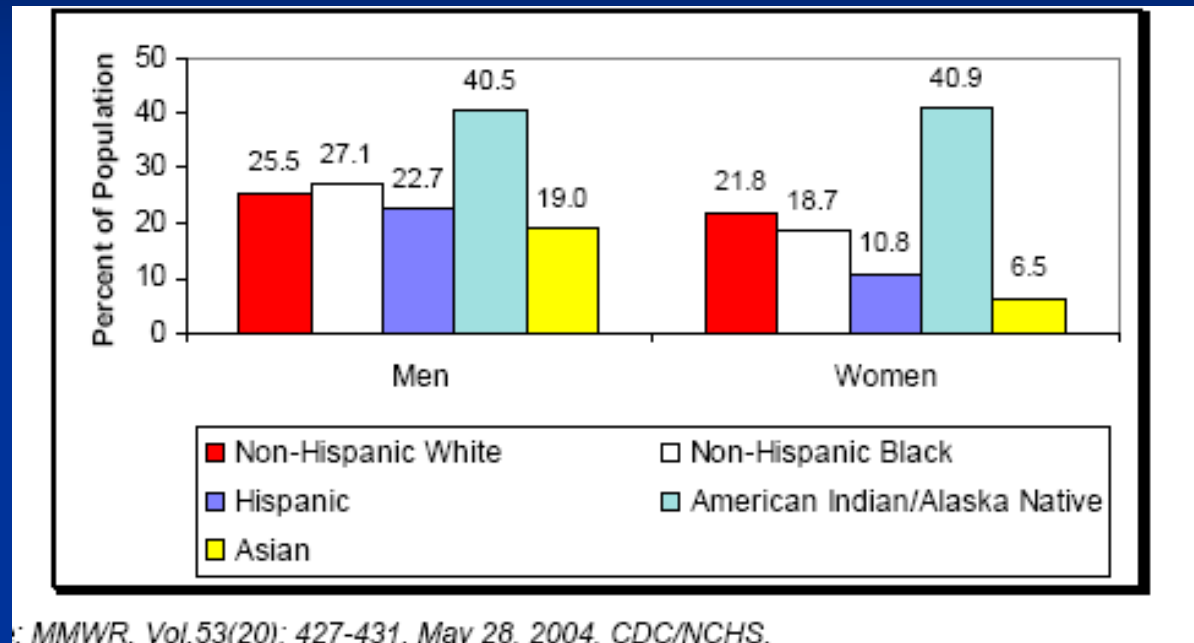


# Evaluation of Women

## Risk Factors

- ❑ Age
- ❑ Family history
- ❑ Personal history of CVD
- ❑ Peripheral vascular disease
- ❑ Tobacco
- ❑ Hypertension
- ❑ Lipids\*
- ❑ Diabetes Mellitus\*

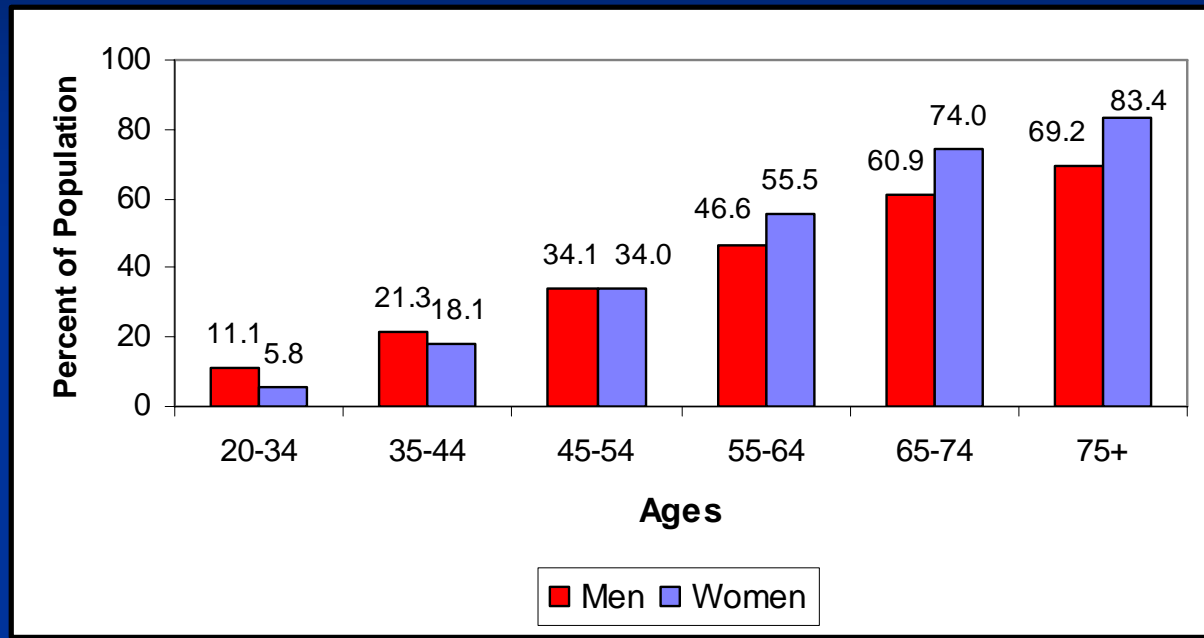
# 1/2 of Heart Attacks due to Smoking



Since 1965, smoking has declined 47% among adults, in 2003:

- 30% of high school boys
- 25% of high school girls report tobacco use

# High Blood Pressure in Women

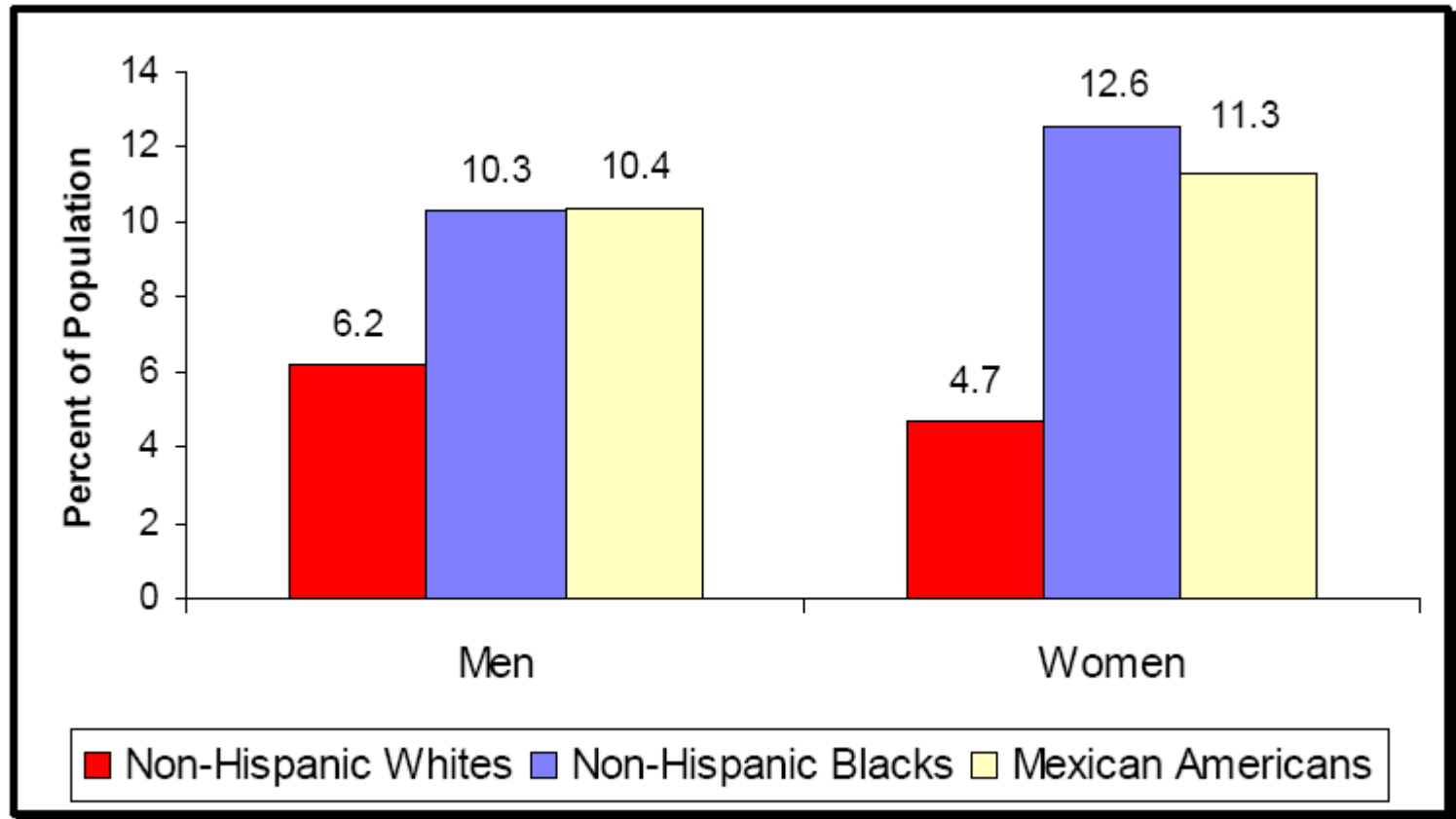


NHANES '99

65 million Americans > 20 yrs old have HTN and 30 percent don't know they have it.

# Age-Adjusted Prevalence of DM in Men and Women

NHANES: 1999-2002



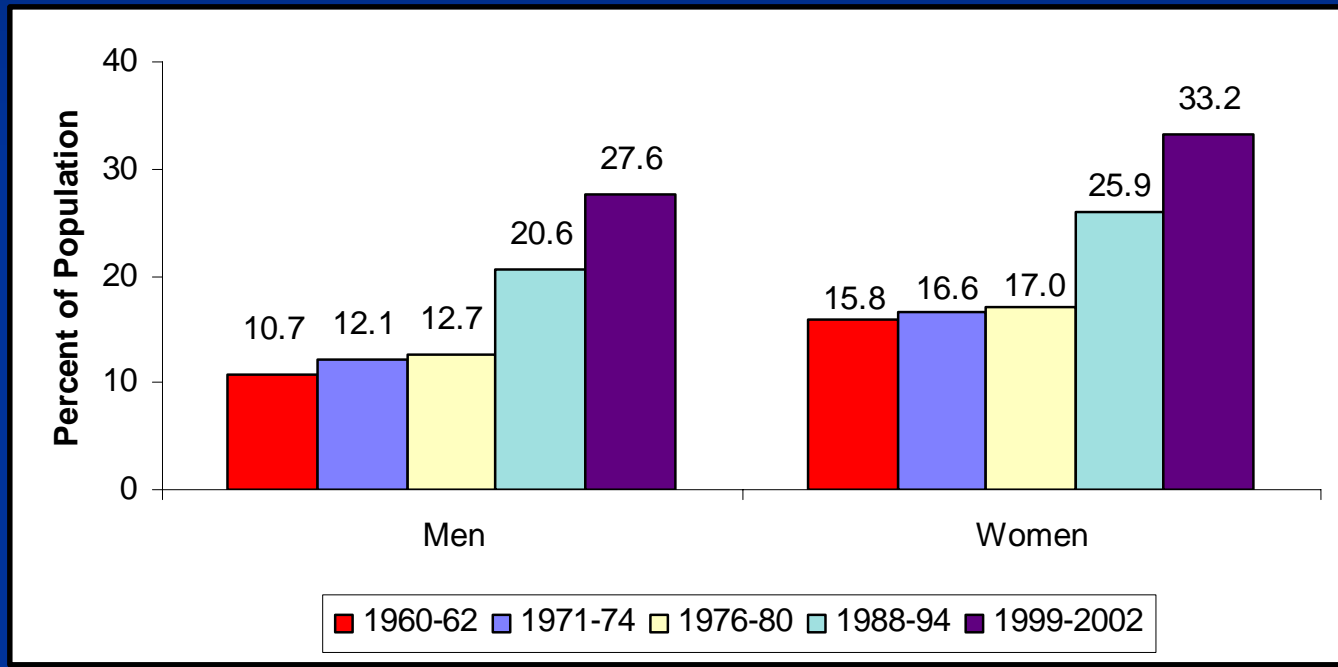
Source: CDC/NCHS

# Heart Disease in Women

## Emerging Risk Factors

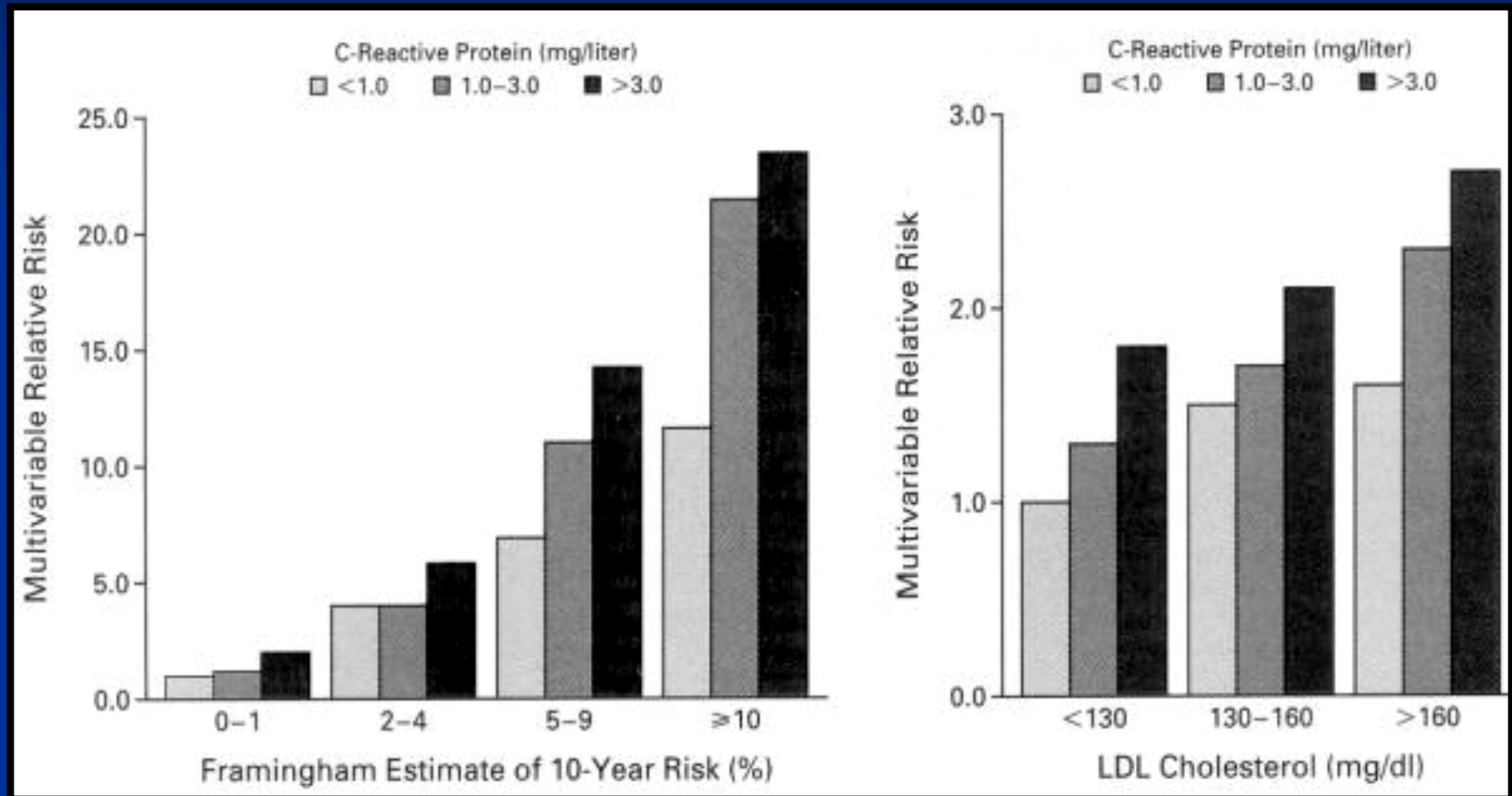
- ❑ Obesity
- ❑ Sedentary lifestyle
- ❑ Psychosocial
- ❑ Hormonal status
- ❑ Markers
  - ❑ CRP

# Age-Adjusted Prevalence of Obesity in Americans Ages 20-74



Obesity is defined as a BMI > 30.0  
(women 5'5" weighing >180lbs or more  
than 30lbs overweight)

# Other Risk Factors: CRP



RR of CVD according to levels of CRP in 27,939 women

Ridker, NEJM 2002;347:1557.

# Risk Stratification

- High Risk > 20% 10-yr risk for Cardiac events
  - Established coronary artery disease
  - Carotid artery stenosis
  - Peripheral arterial disease
  - Abdominal aortic aneurysm
  - Diabetes
  - Chronic renal disease

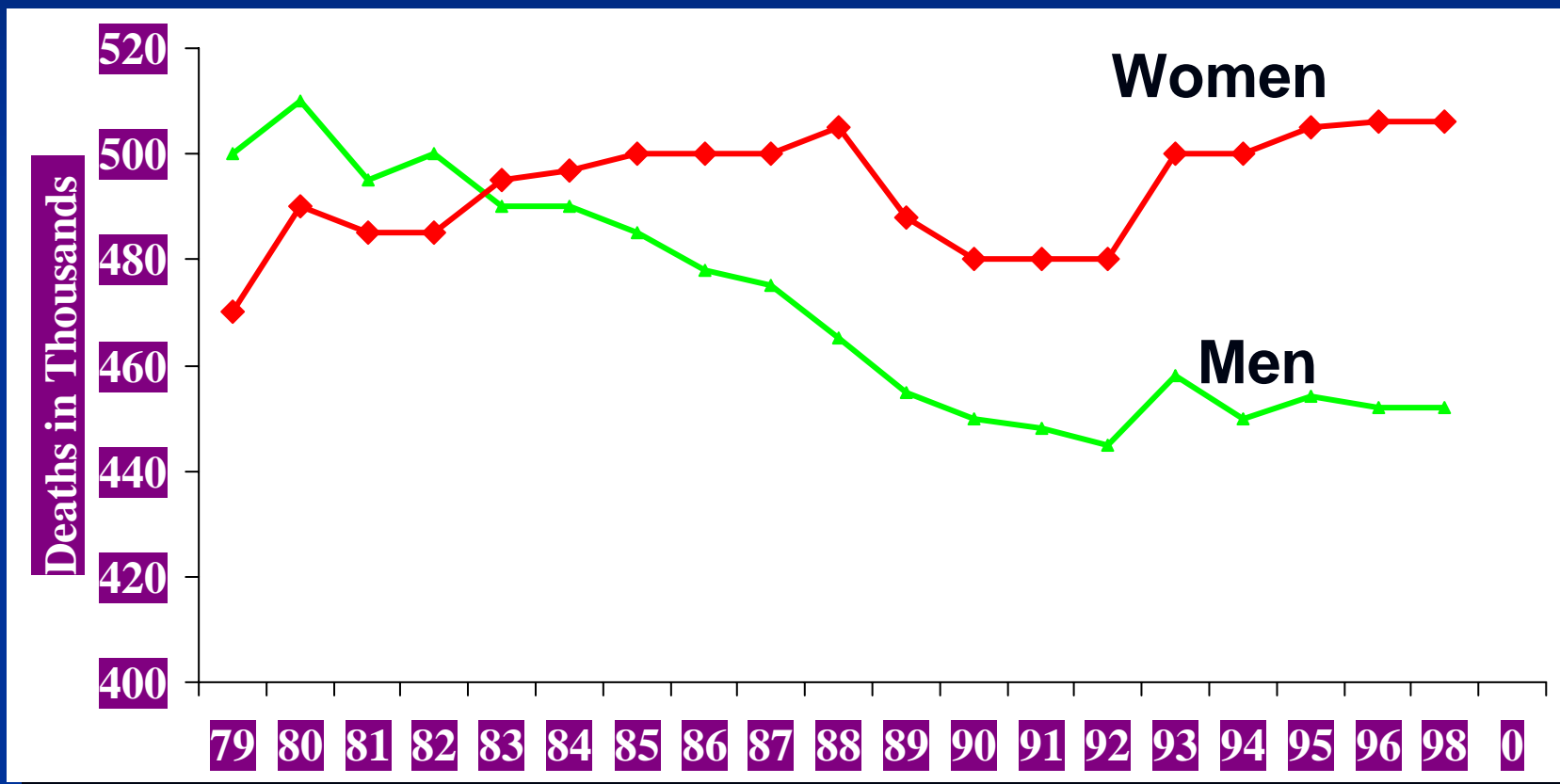
# Risk Stratification

- Intermediate Risk 10-20% 10-yr risk
  - Subclinical cardiovascular disease
  - Metabolic syndrome
  - Multiple risk factors
  - Single risk factor, markedly elevated
  - 1st degree relative with premature CVD

# Risk Stratification

- Lower Risk <10% 10-yr risk
  - May include women with one or more risk factors
  - May include metabolic syndrome
- Optimal Risk <10% 10-yr risk for CHD events
  - Optimal levels of risk factors
  - Heart healthy lifestyle

# 30 Year Trend in CVD Mortality



CDC, AHA Data

# Heart Disease in Women

## Questions to ask your doctor:

- What are the possible diagnosis?
- What information can a test provide?
  - What are the risks and benefits?
  - How accurate is the test?
- What are the recommended treatments?
  - What are the risks, benefits and side effects?
  - Does the hospital/doctors have experience?

# Heart Disease in Women

## Web sites

- [www.womenheart.org](http://www.womenheart.org)
- [www.4women.gov](http://www.4women.gov)
- [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)
- [www.americanheart.org](http://www.americanheart.org)
  - Simple solutions, heartprofilers
- [www.acc.org](http://www.acc.org)