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# Women's Health Prevention Priorities

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BRIGHAM AND  
WOMEN'S HOSPITAL



HARVARD  
MEDICAL SCHOOL  
*TEACHING AFFILIATE*

# Overview

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I. Introduction

II. Women's Health Across the  
Lifespan

III. Methods for Improving Preventive  
Care Access and Delivery

IV. Policy Recommendations

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# I. INTRODUCTION

# Women's Health as a Magnifier and Multiplier

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- Women remain the primary care givers around the world
- In the U.S., women make over 70% of the healthcare decisions
- Women are demanding consumers of health care
  - Seek more health information, demand more education, press for prevention
- Women are the bearers of the next generation
  - Healthy women produce healthier children
- The health of women is a key indicator of a country's overall health— economic, education, health

# Women and Health

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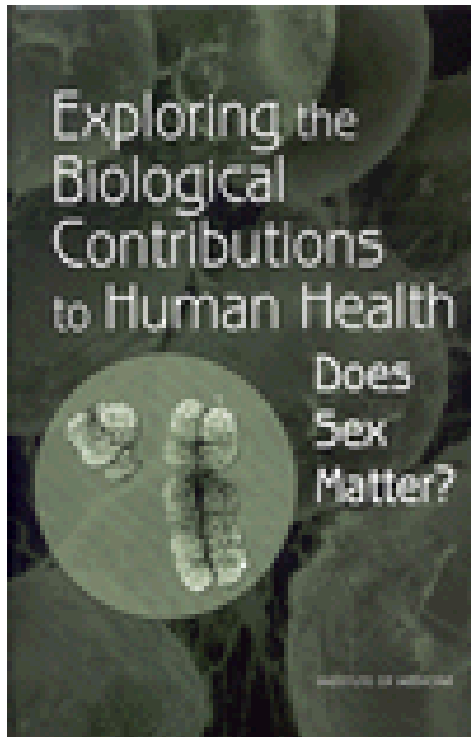
## **Women compared with men:**

- Are more likely to have  $\geq 1$  chronic disease
- Utilize more medical services than men
- Have higher annual health care expenses
- Face more challenges affording care
- Are more likely to have inconsistent insurance coverage

**Women's health is a major determinant of the health of communities and future generations.**

# Sex Does Matter in Health and Prevention

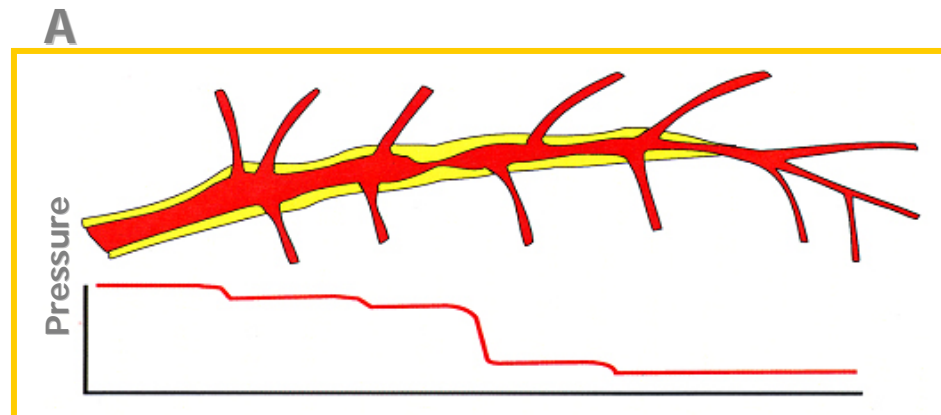
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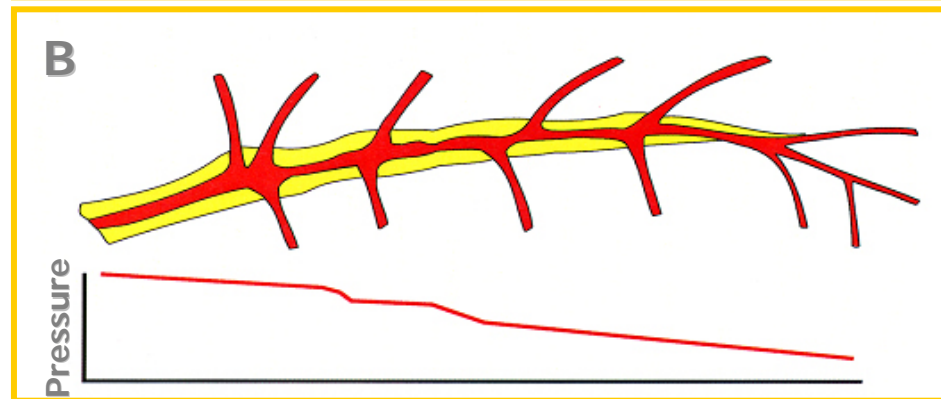
- Every cell has a sex
- Sex differences in health and disease
- Models of disease not based on women
- Gender plays a significant role
- 1993 NIH Revitalization Act: Congress mandated inclusion of women and minorities in clinical research.

# Cardiovascular Disease can be Different in Women

**Blockage in “male”  
coronary artery**



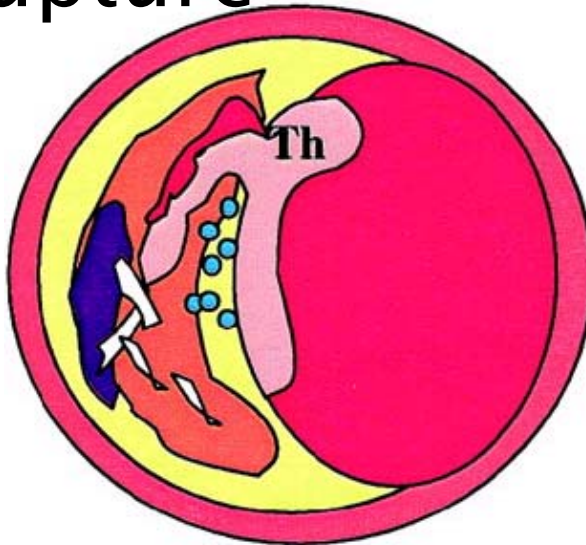
**Blockage in “female”  
coronary artery**



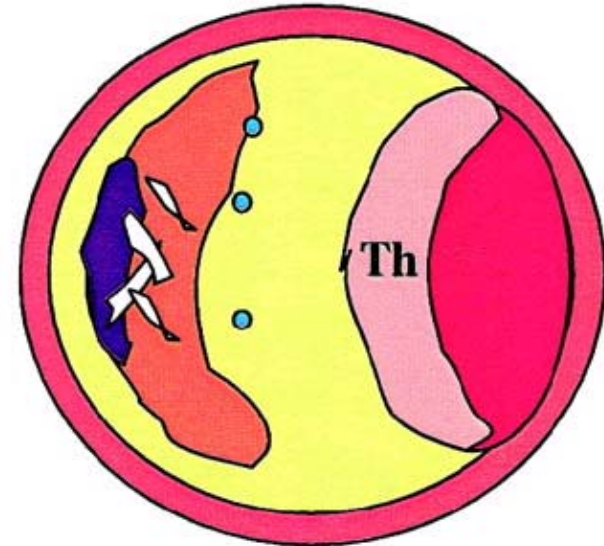
Adapted from Gould. *Coronary Artery Stenosis and Reversing Atherosclerosis*, 2nd ed. 1999.

# Sex Differences in Physiology of Myocardial Infarction

## Plaque Rupture



## Plaque Erosion



Source: Virmani et al, *Arterioscler Throm Vasc Biol.*  
2000;20:1262–1275.



# Why is Women's Wellness Important?

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*The cost of **women's** major chronic health conditions is estimated at \$466 billion dollars per year in the U.S.*

- **Chronic diseases:**

- Cause 7 of 10 deaths among Americans each year
- Account for 75% of the nation's health spending

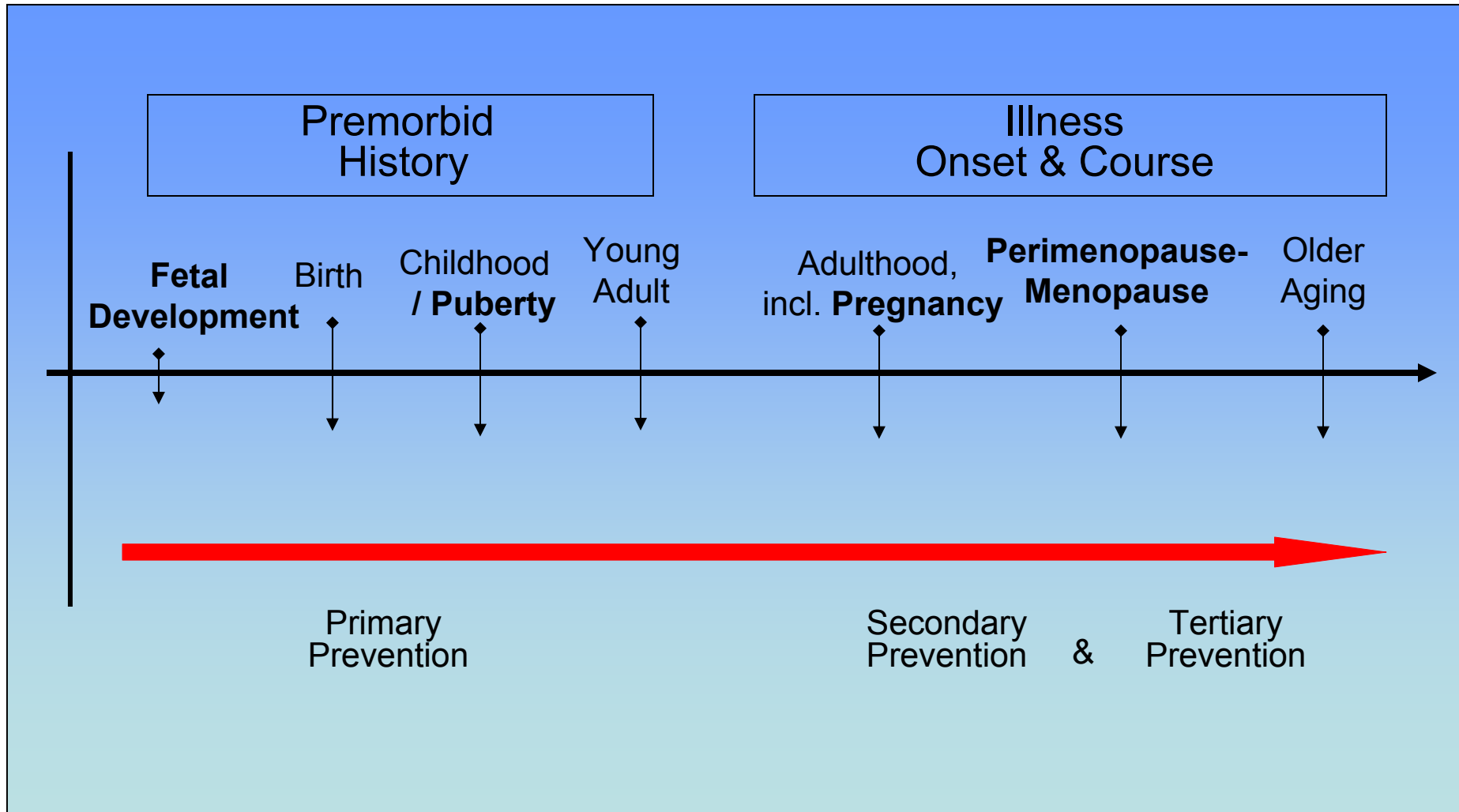
- **Preventive Services:**

- Americans currently use preventive services at about half the recommended rate
- In 2011, 54% of women were not up-to-date on their recommended preventive services

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## **II. WOMEN'S HEALTH ACROSS THE LIFESPAN**

# Windows of Opportunity for Prevention Of Chronic Disease Across the Lifespan



# Women's Health Across the Lifespan

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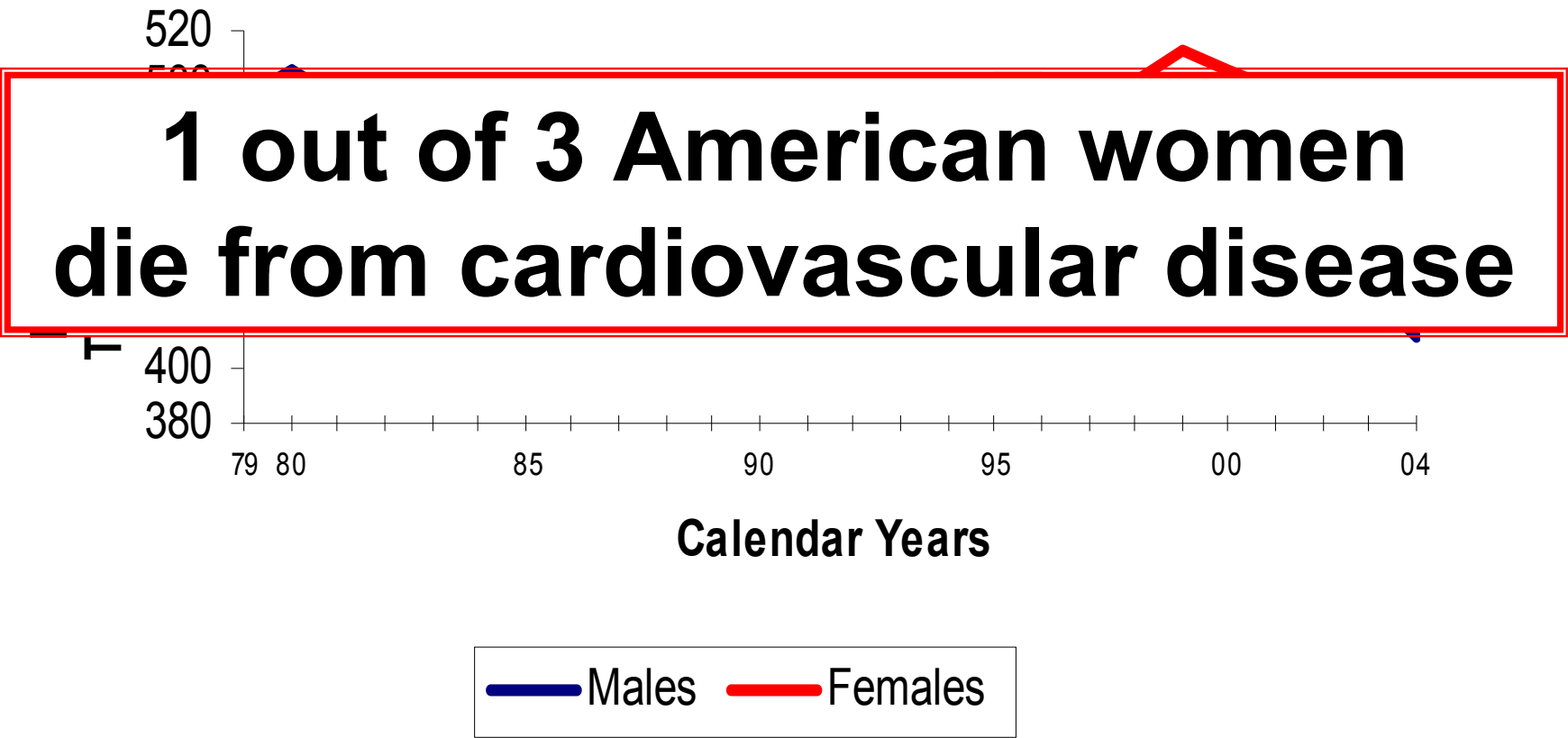
- Reproductive years
  - Pre-conception
  - Pregnancy
  - Inter-conception
- Mid-life – menopause
- Older women
  - Mainly secondary prevention

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# REPRODUCTIVE YEARS

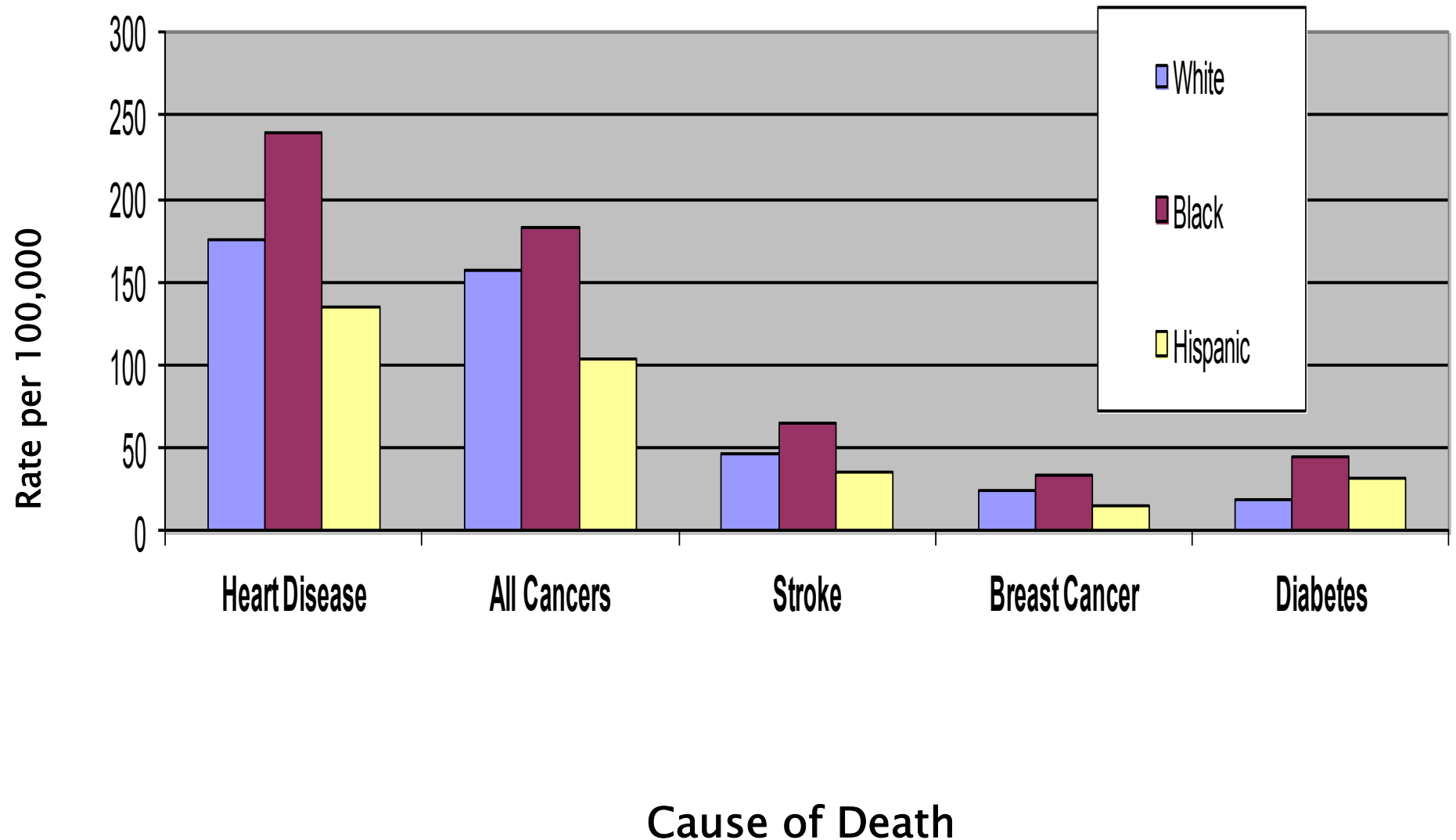
# More Women Die from Heart Disease than Men

Heart Disease Mortality in Women and Men  
Absolute Number of Deaths



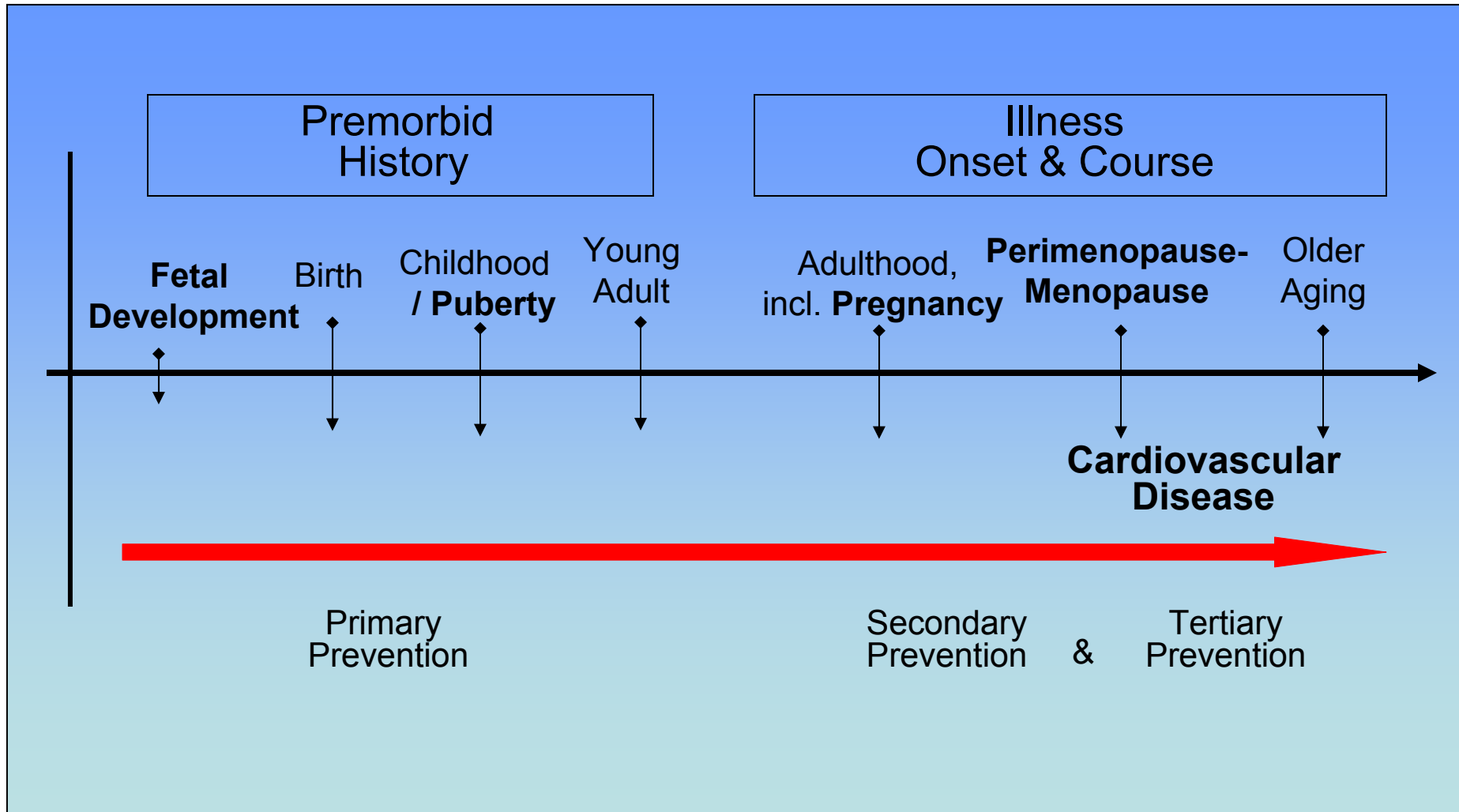
Source: American Heart Association. Heart Disease and Stroke Statistics–2007 Update.

# Heart Disease is the Number One Cause of Death in Women



Age Adjusted, 3-Year Cumulative Mortality Rates for U.S. Women by Race/Ethnicity  
2003–2005. Source: CDC, Mortality Rates, 2003–2005

# Windows of Opportunity for Prevention Of Chronic Disease Across the Lifespan

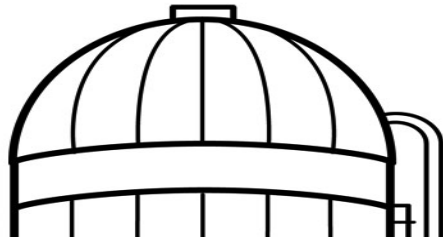




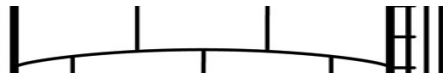
# Linking Reproductive Health and Chronic Disease

Reproductive Health

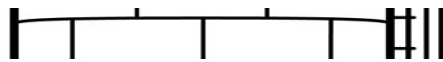
Cardiovascular Health



**Preeclampsia: 5%**



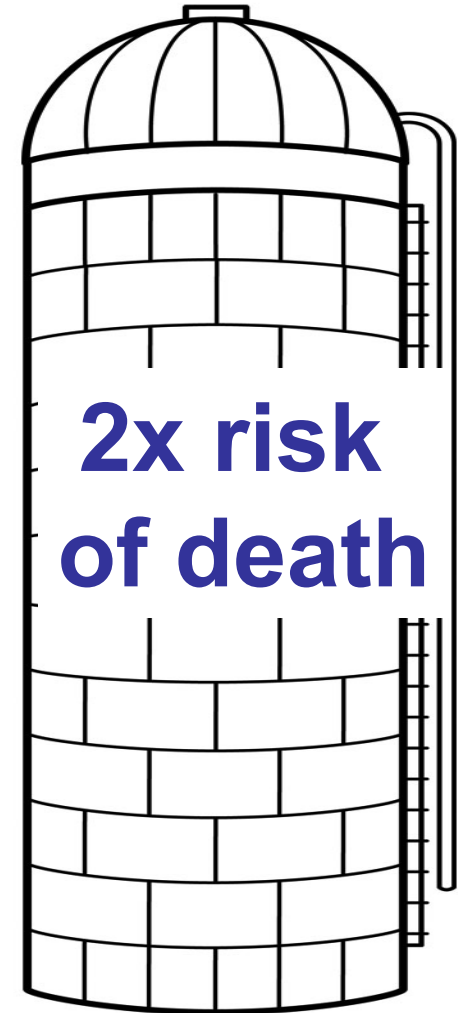
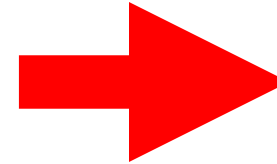
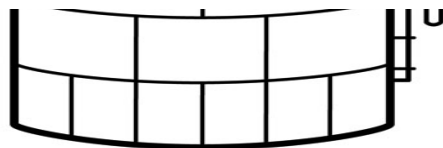
**Gestational Diabetes: 5%**



**Preterm delivery: 12%**



**Low birthweight: 7%**



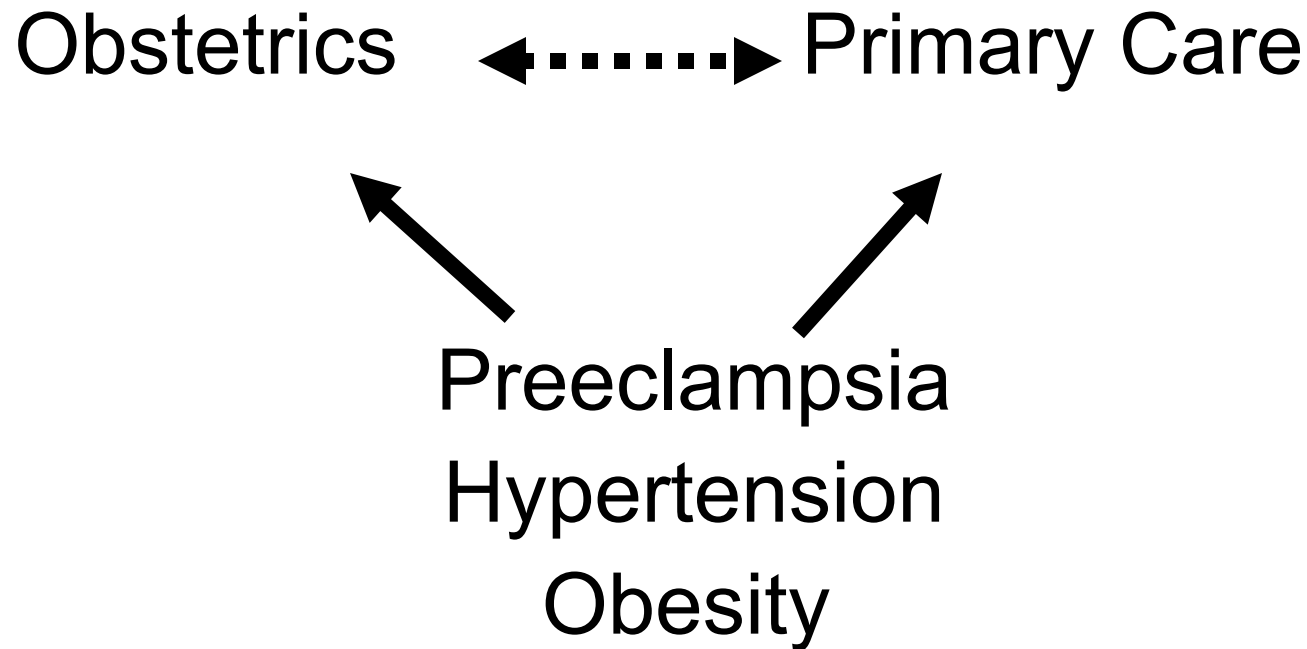
**2x risk  
of death**

# Opportunities for Primary Prevention:

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## Gaps in Care

25% of 85 million mothers today have a history of pregnancy complications indicating high CVD risk.



# GDM and the Health of Women: Gaps and Opportunities

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- Lack of guidelines on how to care for women post-pregnancy to decrease risk
- Currently no way to track the population through billing
- Need to address full scope of “cardio-metabolic disorders” in younger women who are pregnant, soon to be pregnant, or between pregnancies, that affect health of women and children over the lifespan

# Opportunities for Primary Prevention: Obesity

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- If all overweight and obese women (BMI over 25 kg/m<sup>2</sup>) had GDM risk that was equivalent to that of normal weight women, nearly ***half*** of the GDM cases could be prevented.
- Achieving a normal pre-pregnancy weight decreases the risk of Type 2 DM and CVD
- Achieving a normal weight pre-pregnancy decreases the risk of pre-eclampsia, recurrent GDM or hypertension of pregnancy.

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# **MIDLIFE TO MENOPAUSE**

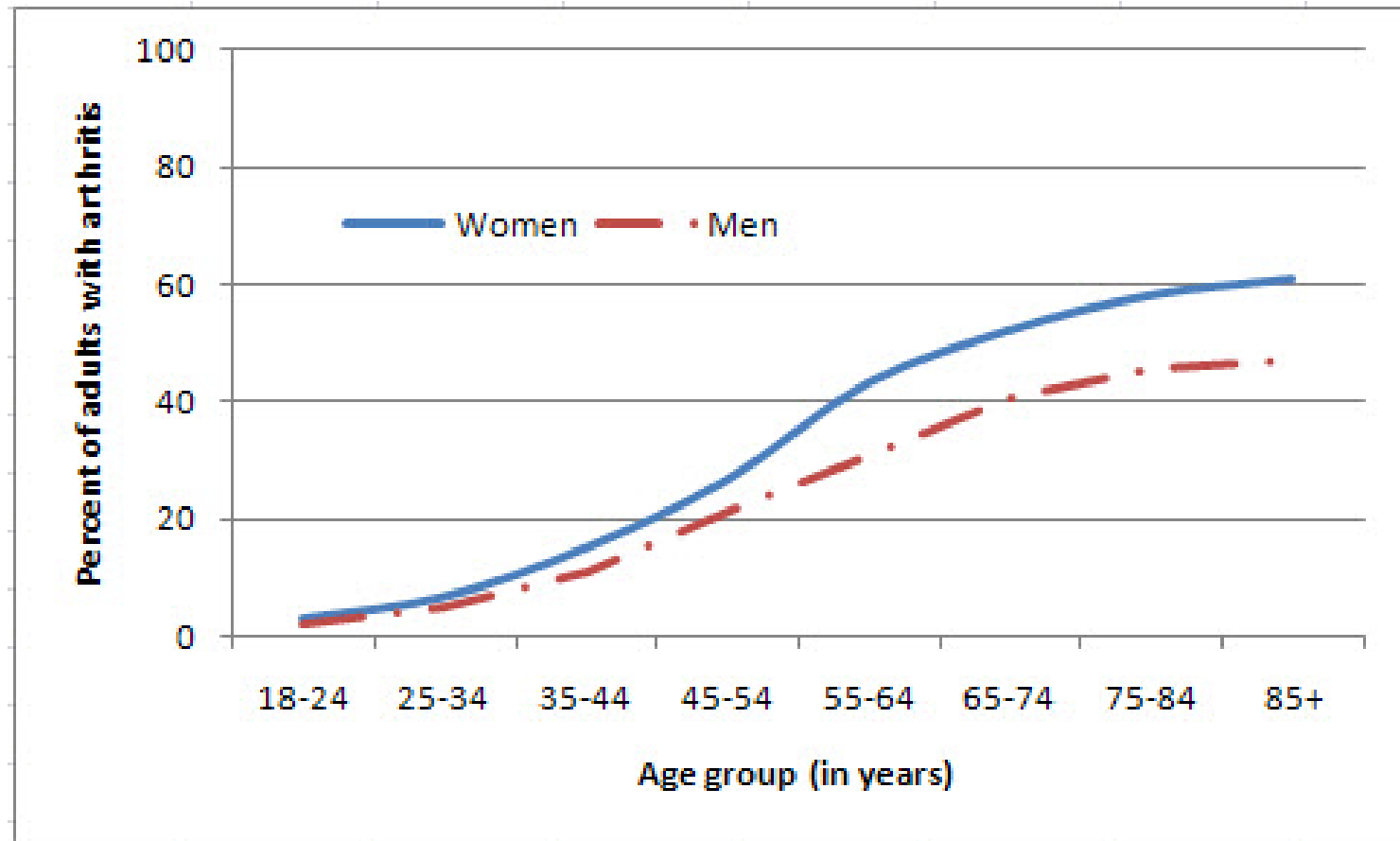
# Gender/Social Impact of Care-Giving

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- RR of CHD death in women caring for ill or disabled spouse:  
1.82 (95% CI, 1.08-3.05 adjusted for risk factors)
- RR of CHD death in women caring for an ill parent with no siblings compared with women with siblings in same care-giving circumstances:  
3.01 (95% CI, 0.88-10.29)

# Major Cause of Disability: Arthritis

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Sex specific prevalence of physician diagnosed arthritis, National Health Interview Survey 2007-2009

# Arthritis is the number one cause of morbidity for women

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- Arthritis is the number one cause of morbidity in the US
- 33% of women ages 45-54 have doctor diagnosed arthritis
- Over 60% of women over the age of 65 have doctor diagnosed arthritis
- Over age of 50 yrs, women are twice as likely to be diagnosed with osteoarthritis compared with men

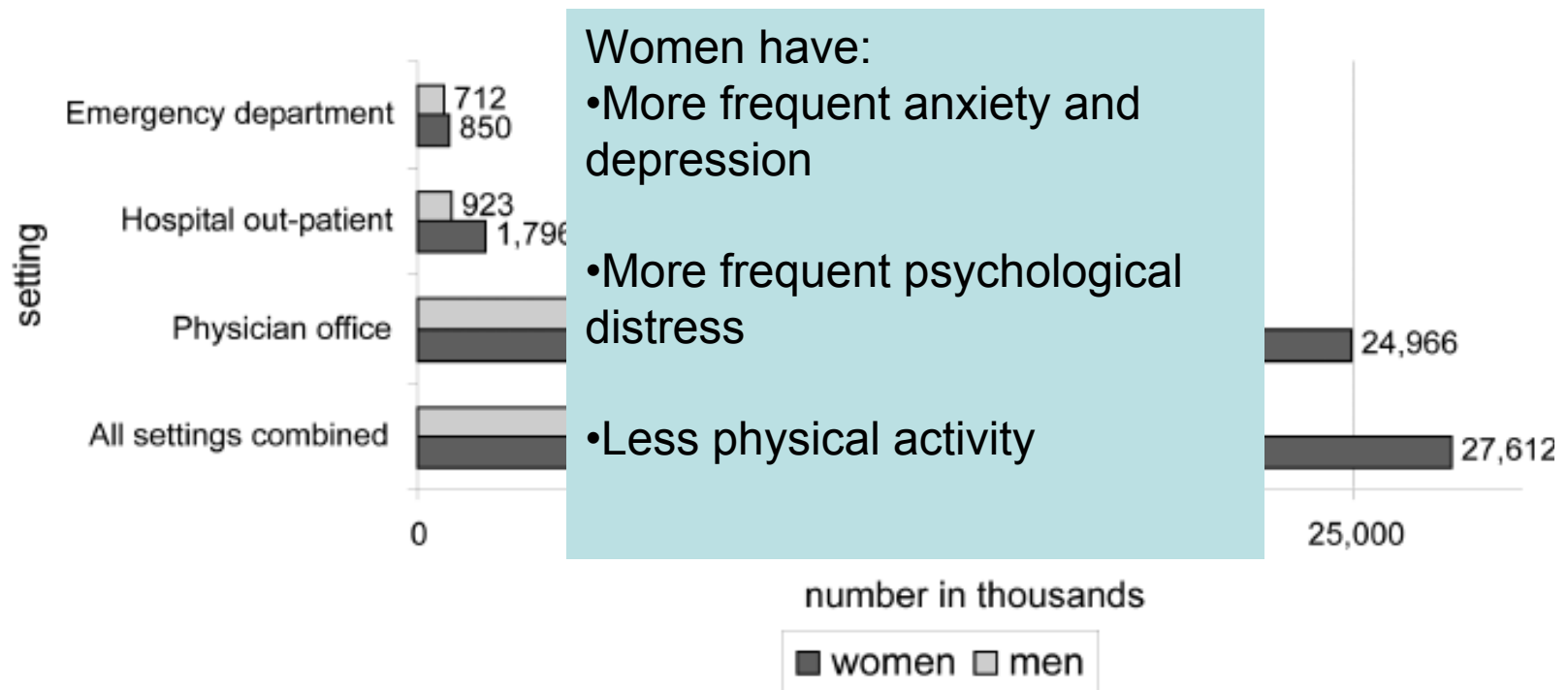


# Knee Arthritis in Women

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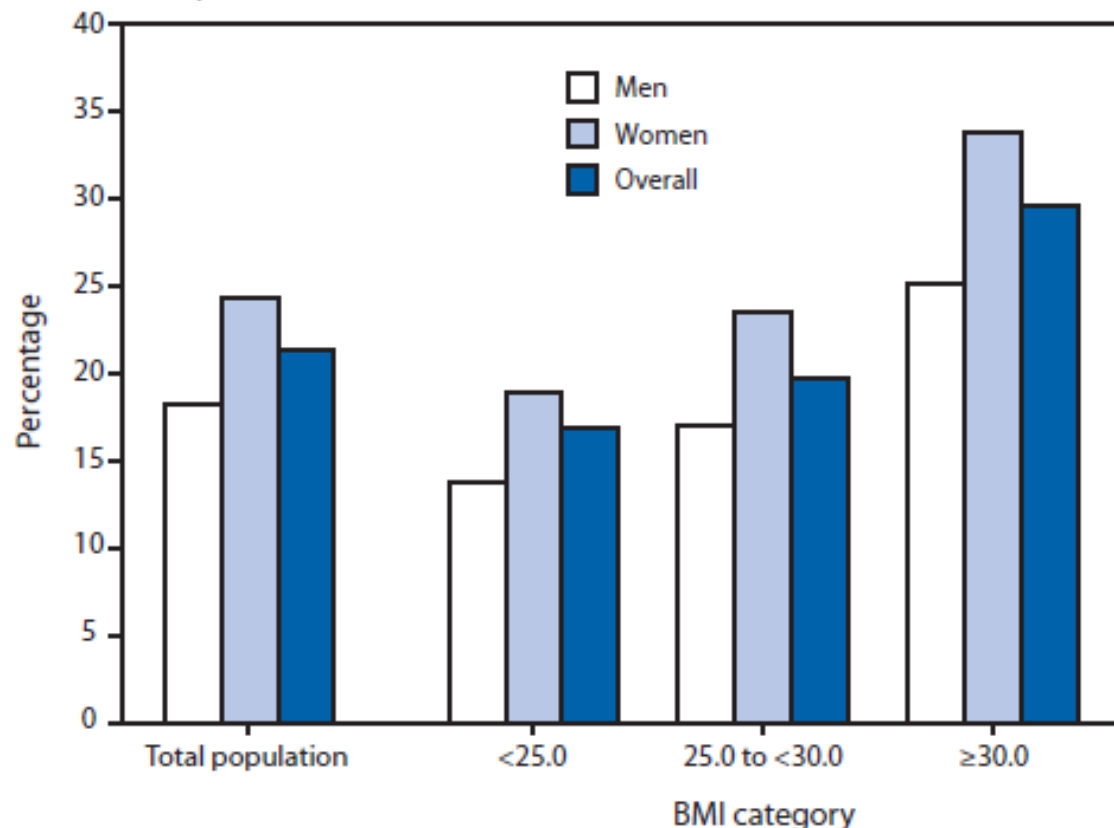
- Women lose patella cartilage at a higher rate than men
- **Worse symptoms:** Women report more symptoms than men with similar radiographic grades
- **Women delay treatment:** Women seek knee replacement at a later stage than men

# Ambulatory Visits for Arthritis: Men and Women ages $\geq 18$ yrs 2002-2004



# Arthritis and Obesity

FIGURE. Age-adjusted\* prevalence of doctor-diagnosed arthritis among adults, by sex and body mass index (BMI) category† — National Health Interview Survey, United States, 2007–2009



\* Age adjusted to the 2000 U.S. projected adult population, using three age groups: 18–44 years, 45–64 years, and ≥65 years.

† BMI = weight (kg) / height (m<sup>2</sup>). Categorized as follows: underweight/normal weight (<25.0), overweight (25.0 to <30.0), and obese (≥30.0).

# Approaches to Prevention of Arthritis

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- Improve self-management through education, physical activity, and weight management.
  - Physical activity decreases arthritis and delays disability— only 52% were counseled on physical activity
  - Weight management— only 42% of overweight women with arthritis counseled on wt. loss
  - Only 10% of patients over 18yrs had arthritis education
- Women delay joint replacement
- Opportunity for interdisciplinary approach to care

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## OLDER WOMEN

- Major opportunity is in preventing chronic disease early in life
- Secondary prevention is critical and women are frequently undertreated

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# **III. KEY METHODS FOR IMPROVING PREVENTIVE CARE DELIVERY & ACCESS**

# Key Methods for Improving Prevention

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1. The Affordable Care Act
  - Coverage
2. Accountable Care Organizations and Medical Homes
  - Health care delivery
3. Health Care Workforce
  - Who delivers the care
4. Data Stratification
  - Measurement of outcomes

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# **The Affordable Care Act**



# Prevention under the ACA

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- ▣ **Essential Health Benefits:** 10 benefit categories that plans **must** cover to be sold on state Exchanges
- ▣ **No-Cost Preventive Services:** services that insurers must provide without consumer cost-sharing

# Women's Health Preventive Services- August 2012

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Type of Preventive Service	Frequency
1. Well-woman visit	Annual *
2. Gestational Diabetes screening	24-28 weeks or first prenatal visit for high risk women
3. HPV testing	Every 3 years after age 30
4. Sexually-transmitted disease Counseling	Annual
5. HIV screening and counseling	Annual
6. Contraceptive methods and counseling	As prescribed
7. Breastfeeding support, supplies, and counseling	In conjunction with each birth
8. Screening and counseling for interpersonal and domestic violence	Annual

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# **Medical Homes**

# Medical Homes

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**Medical Home:** a model of care where the primary care physician is the “quarterback” and coordinates all care for a single patient in a team-based model. Elements include:

- Primary care provider linked with each person
- Whole person orientation
- Integrated, coordinated care
- Quality and safety are the hallmarks
- Enhanced access
- Paying for value

# Opportunities for Primary Care Prevention

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- Educate women regarding risks common chronic diseases with gender-specific information: CVD and Osteoarthritis
- Educate internists and family physicians regarding the risk of GDM and pre-eclampsia
- Facilitate the transition from obstetrics care to primary care with attention to risk of chronic disease
- Lifestyle modification will be key
  - Transitions in life may be an opportune times to capture women and their families.

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# **The Primary Care Workforce**

# Access to Primary Care & Prevention

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- **Primary Care:** Family Medicine, Internal Medicine, Obstetrics and Gynecology (OB/GYN), Geriatrics and Psychiatry
- **17 million women expected to gain coverage:** Who will deliver their preventive care?
- **Coverage gains will exacerbate existing shortages:** shortage of 45,000 primary care providers (PCPs) by 2020

## **ACA:**

- Increased Medicaid reimbursement and payment for PCPs in medical shortage areas
- National Health Care Workforce Commission

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# **Data Stratification**



# Collect sex-disaggregated data to assess impact & outcomes

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Table: Predictors for Referral for Cardiac Catheterization

Factors	Odds Ratio for Catheterization	P-Value
Race and Sex as Separate Factors		
Male	1.0	
Female	0.6 (0.4–0.9)	0.02
White	1.0	
Black	0.6 (0.4–0.9)	0.02
Interaction of Race and Sex		
White Male	1.0	
Black Male	1.0 (0.5–2.1)	0.99
White Female	1.0 (0.5–2.1)	>0.99
Black Female	0.4 (0.2–0.7)	0.004

Source: Schulman KA, et al. *NEJM* 1999; 340–624.

# Data Stratification

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## THE CHALLENGE:

- No specific commitment to stratifying critical health care reform indicators by sex and sex/race groups.
- **ACA §4302** Requires standards for collection of self-reported data including sex and race/ethnicity and publically reporting data on these indicators to the extent practicable.

## MA Examples:

- Uninsured
- Survey data analysis
- Churn

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## **IV. Policy Recommendations**

# Policy Recommendations

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## **Health care Delivery:**

- Create medical home models that reflect the health needs of women
  - Consider Medicaid demonstrations that address the transitions between OB-GYN and Primary Care
- Invest in the public health infrastructure
  - Example: MA Public Health and Prevention Trust Fund

# Policy Recommendations

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## Workforce

- Develop policies that support women caregivers
- Support policies that encourage flexible work schedules for female primary care providers who are populating the field in greater numbers
  - Include in Medicare and Medicaid demonstrations

# Policy Recommendations

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## **Data Stratification/Monitoring**

- Data Stratification
  - Require reporting of data stratified by sex in Insurance Exchanges
  - Require reporting data by sex on access to preventive care and related health outcomes
  - Example: MA Data Stratification Bill
- Monitoring of No-Cost Preventive Services for Women
  - Monitoring and evaluating the access to preventive services, utilization, and health outcomes in order to understand impact on short- and long-term health and cost in U.S. women.

# Policy Recommendations

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## Research

- There is a need for research in order to understand:
  - ***Mechanisms*** of disease that differ by gender so that we can prevent disease in women
  - The ***most effective interventions*** to achieve decreased rate of chronic disease with attention to differences in women and men
  - The best ***models of health care delivery*** that result in desired outcomes

# Contact Information

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## **The Women's Health Policy and Advocacy Program**

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