Cardiovascular Disease

Lecture Objectives

- Describe the epidemiology, prevention, and treatment of common cardiovascular diseases that affect women.

- Describe what risk factors may increase women’s risk for cardiovascular diseases.
Cardiovascular Disease

42.7 million women are currently living with some form of cardiovascular disease.

420,000 women die of CVD a year

~ 1 death every 37 seconds

Leading cause of death and leading cause of disability among women.
Heart disease is a leading cause of death for **ALL AGE GROUPS** of women:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>10-14</th>
<th>15-19</th>
<th>20-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease</td>
<td>5th</td>
<td>5th</td>
<td>5th</td>
<td>3rd</td>
<td>3rd</td>
<td>2nd</td>
<td>2nd</td>
<td>1st</td>
</tr>
<tr>
<td>Stroke</td>
<td>8th</td>
<td>8th</td>
<td>9th</td>
<td>7th</td>
<td>6th</td>
<td>4th</td>
<td>5th</td>
<td>3rd</td>
</tr>
</tbody>
</table>

**Heart Disease Death Rates, 2011-2013**

Women, Ages 35+, by County

Rates are spatially smoothed to enhance the visibility of rates in counties with small populations.

Data Source:
National Vital Statistics System
National Center for Health Statistics
Sex/Gender Differences

- Women present with signs and symptoms 10-15 years later than men
  - Attributed to loss of estrogen during menopause
- More women die than men from CVD
- Women more prone to other symptoms of an MI
  - "Just a little heart attack"

Gender Differences in CVD Risk Factors

- Menopause
- Smoking
- Body weight
- Diabetes
- Systolic blood pressure
- Hypercholesterolemia
Female Specific CVD Risk Factors

- Hormonal dysfunction
- Hypertensive diseases in pregnancy
- Gestational diabetes

General Risk Factors

- Tobacco Use
- Hypertension
- High Blood Cholesterol
- Diabetes
- Overweight and Obesity
- Physical Inactivity

- Intrauterine Environment
- Menopause
- Oral Contraceptives
- Alcohol and Illicit Drugs
- Stress

Compounding Risk Factors
Social Support – A Protective Factor

- **What is social support?**
  - Aid and assistance exchanged through social relationships and interpersonal transactions
  - **Types:**
    - Emotional
    - Instrumental
    - Informational
    - Appraisal
  - Important for protecting against CVD

Social Support – A Protective Factor

- Emotional: expressions of empathy, love, trust, and caring
- Instrumental: tangible aid and service
- Informational: advice, suggestions, and information
- Appraisal: information that is useful for self-evaluation
Social Support – A Protective Factor

- **Gender differences**
  - Association between social support and health benefits stronger for men compared to women
  
  - It is more beneficial for men’s health to be married and it is more detrimental to men’s health to be widowed or divorced.
  
  - One explanation is that women benefit more from relationships with female friends and relatives and are less dependent on their spouses for social support.

Social Determinants

- **Socioenvironmental**
  - Poverty
  - Unemployment

- **Sociodemographic**
  - Age
  - Race/ethnicity

- **Healthcare**
  - Insurance
Economic Dimensions

- Cost of CVD and stroke in 2007: $286 billion
  - Direct $167 billion: health expenditures
  - Indirect $119 billion: lost productivity

- Emotional cost is incalculable

Activity

- Matrix
  - What is the health condition?
  - How does it affect women?
  - Any disparities?
  - How do we prevent it?
  - How do we treat it?
  - Catchy slogan 😊

Coronary Heart Disease

[Diagram showing stent insertion, expansion, and stent remains in coronary artery]

Myocardial Infarction

[Image of woman saying 'Just a Little Heart Attack']
Congestive Heart Failure

Rheumatic Heart Disease
Angina Pectoris

Peripheral Artery Disease
Metabolic Syndrome

Stroke

Stroke – there’s treatment if you act FAST.

Face
Face look uneven?

Arm
One arm hanging down?

Speech
Slurred speech?

Time
Call 911 NOW!
Advocacy

Lecture Wrap Up

- **Key Terms:**
  - Coronary heart disease, myocardial infarction, angina pectoris, congestive heart failure, rheumatic heart disease, peripheral artery disease, metabolic syndrome, stroke

- **Individual Health Importance:**
  - Understand the key components of living a healthy lifestyle, which can impact risk for heart disease later in life.

- **Public Health Importance:**
  - Heart disease is prevalent among women, and leading causes of death.

- **Social/Political Importance:**
  - Sociocultural, behavioral, and environmental factors influence risk for cardiovascular disease.