Cardiovascular Disease

WOMEN'S HEALTH: A PUBLIC HEALTH PERSPECTIVE

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, 2008-2010 Women Ages 35+, by County](image)
**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?**
  - Physical and emotional comfort given to us by others
  - **Types:**
    - Emotional
    - Instrumental
    - Tangible
    - Informational
  - Important for protecting against CVD

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

Myocardial Infarction
Congestive Heart Failure

Normal Heart  Congestive Heart

Rheumatic Heart Disease

Narrowed Aortic Valve ("stenotic")
Leaking Mitral Valve ("regurgitant")
Vessels to and from the Lungs
Angina Pectoris

Peripheral Artery Disease
Metabolic Syndrome

“Apple” vs. “Pear”

Stroke

Stroke – there’s treatment if you act FAST.

Face look uneven? Arm hanging down? Speech slurred? 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.