Coronary Heart Disease

Disease Information Packets – Slide Sets

Public Health Services,
Community Health Statistics
12/2012
What is Coronary Heart Disease?

- Coronary heart disease (CHD) is the most common heart condition under the broad description of heart disease in the United States.

- Caused by atherosclerosis—narrowing of the small blood vessels that supply blood and oxygen to the heart due to plaque (fatty deposits).
  - Impaired blood flow can cause death of the heart muscle from lack of oxygen.

- CHD can also cause:
  - Heart Attack
  - Heart Arrhythmia (irregular heartbeat)
  - Heart Failure
  - Sudden Cardiac Death

Demographic Risk Factors

- **Age**
  - About 82% of people who die from CHD are 65 or older.

- **Gender**
  - Men are more likely than women to have CHD.

- **Heredity/Genetic factors**
  - Risk of CHD increases 2-3 times if a close relative has the disease.

- **Race/ethnicity**
  - Blacks and Hispanics are at a higher risk for developing CHD than whites.

- **Socio-economic Status**
  - Those of low socioeconomic status are at a higher risk for developing CHD than those of high socioeconomic status.

Behavioral and Social Risk Factors

- **High blood pressure**
  - B.P. $\geq 140$ mmHg/90 mmHg increases the risk of CHD.

- **High blood cholesterol**
  - About 1 of every 3 adult Americans has high blood cholesterol.

- **Diabetes Mellitus**
  - At least 3 out of 4 people with diabetes die from heart or blood vessel disease.

Behavioral and Social Risk Factors

• Sedentary lifestyle / Obesity
  – Obesity is a major risk factor for CHD.
  – About 75 million adults are obese.

• Tobacco use
  – Smoking cigarettes contributes to the development of atherosclerosis.
  – The risks of CHD and sudden cardiac death are higher among smokers than non-smokers.

• Poor nutrition
• Poor medical care
• Stress, depression

Intermediate Outcomes

• Stroke
  – A diseased heart increases the risk of stroke.

• Angina pectoris
  – Causes chest pain or discomfort from reduced blood supply to the heart.

• High blood pressure

• High cholesterol

• Diabetes

National Statistics

- 49.7% of U.S. adults aged ≥20 years (an estimated 107.3 million persons) have at least one of the three leading risk factors for CHD. (Valderrama, 2011)
- Coronary heart disease caused 1 of every 6 deaths in the United States in 2008. (AHA)
- In 2007, one-quarter of all deaths (616,000) were from diseases of the heart. (Xu, 2010)

National Disparities

• In the United States, the rate of death due to heart disease in 2006 was highest in Mississippi and lowest in Minnesota.

Top 5 States with Highest Heart Disease Death Rates, United States, 2000-2006

1. Mississippi
2. Oklahoma
3. Alabama
4. West Virginia
5. Kentucky

Source: Centers for Disease Control and Prevention, Heart Disease Fact Sheet, January 2010.
National Disparities

Coronary Heart Disease Age-Adjusted Death Rates*
United States, 2009

In 2009, the age-adjusted death rate from CHD was highest for blacks, followed by whites, and higher for men than women.

*Age-adjusted rates are per 100,000 2000 U.S. Standard population.
Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Public Health Services, Community Health Statistics, 11/07/2012.
Local Statistics and Disparities

CHD Deaths*: Actual and Age-Adjusted Rates**
San Diego County, 2009

- **Actual Rate**
- **Age-Adjusted Rate**

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* CHD Death refers to (underlying cause of death) ICD-10 codes I11,I20-I25.
** County actual rates are per 100,000 individuals. County age-adjusted rates per 100,000 2000 US standard population.
§ Rates not calculated for fewer than 5 events.
‡ API includes Asian and Pacific Islander.
Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 9/19/2012.
Local Statistics and Disparities

CHD Death* Rates** by Age Group, San Diego County, 2009

* CHD Death refers to (underlying cause of death) ICD-10 codes I11,I20-I25.
** County actual rates are per 100,000 individuals. County age-adjusted rates per 100,000 2000 US standard population.
§ Rates not calculated for fewer than 5 events.
‡ API includes Asian and Pacific Islander.
Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 9/19/2012.
Coronary Heart Disease† Rates*
San Diego County, 2009

*Rates are per 100,000 population.
†Coronary Heart Disease death refers to (underlying cause of death) ICD-10 codes I11, I20-I25.
§Rates not calculated for fewer than 5 events. Rates not calculated in cases where zip codes is unknown or outside San Diego.
Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 6/28/2012.
Local Statistics and Disparities

Coronary Heart Disease Death Rates*
San Diego County, 2000-2009

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Prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 6/28/2012.
Disease Prevention

• Avoid smoking
• Be physically active
• Control weight
• Eat healthy foods
• Avoid excessive alcohol consumption
• See a doctor regularly to:
  – Monitor cholesterol level
  – Check blood pressure
  – Control diabetes

Know the 5 Major Symptoms of a Heart Attack

1. Pain or discomfort in the jaw, neck, or back
2. Feeling weak, light-headed, or faint
3. Chest pain or discomfort
4. Pain or discomfort in arms or shoulder
5. Shortness of breath

If you think that you or someone you know is having a heart attack, call 9–1–1 immediately.

Source: American Heart Association. My Heart and Stroke News. Coronary Artery Disease-The ABCs of CAD. February 2012
Critical Pathway for Coronary Heart Disease
Contact Us

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