Coronary Heart Disease and Angina Pectoris

Coronary Heart Disease

(ICD/9 410-414; 410 — Acute Myocardial Infarction; 411 — Other Acute and Subacute Forms of Ischemic (Coronary) Heart Disease; 412 — Old Myocardial Infarction; 413 — Angina Pectoris; 414 — Other Forms of Chronic Ischemic Heart Disease)

Coronary heart disease (CHD) caused 476,124 deaths in the United States in 1996 — 1 of every 4.9 deaths. CHD total mention mortality — more than 725,000 of the over 2,000,000 deaths.

- CHD is the single largest killer of American males and females.
- About every 29 seconds an American will suffer a coronary event, and about every minute someone will die from one.
- This year an estimated 1,100,000 Americans will have a new or recurrent coronary attack (defined as myocardial infarction or fatal CHD). About 650,000 of these will be first attacks and 450,000 will be recurrent attacks. About one-third of the people experiencing these attacks will die of them.*
- At least 250,000 people a year die of CHD within 1 hour of the onset of symptoms and before they reach a hospital. These are sudden deaths caused by cardiac arrest, usually resulting from ventricular fibrillation.
- 12,000,000 people alive today have a history of heart attack, angina pectoris (chest pain) or both. This breaks down to 5,800,000 males and 6,100,000 females.
- Studies show that the risk of death from CHD is much greater for the least-educated than for the most-educated people.
- From 1986 to 1996 the death rate from CHD declined 27.0 (24.2) percent, but the actual number of deaths declined only 8.6 percent.

*Based on data from the Atherosclerosis Risk in Communities (ARIC) study of the National Heart, Lung, and Blood Institute (NHLBI), 1987-93. These data represent Americans hospitalized with definite or probable myocardial infarction (MI) or fatal CHD, not including silent MIs.
Age, Sex, Race

- 84.7 percent of people who die of CHD are age 65 or older.
- About 80 percent of CHD mortality in people under age 65 occurs during the first attack.
- In 57 percent of men and 64 percent of women who died suddenly of CHD, there were no previous symptoms of this disease.
- 1996 CHD mortality: male deaths — 242,036 (50.8 percent of deaths from CHD); female deaths — 234,088 (49.2 percent of deaths from CHD).
- In 1996 CHD death rates were 120.2 (246.5) for white males and 125.4 (229.8) for black males, and 58.9 (145.7) for white females and 80.0 (165.2) for black females.
- For ages 35-74, the age-adjusted death rate from CHD for black women is nearly 72 (69) percent higher than that of white women.
- Among American adults age 20 and older, the estimated prevalence of CHD is 7.2 percent for the general population, 7.5 percent for non-Hispanic whites, 6.9 percent for non-Hispanic blacks and 5.6 percent for Mexican-Americans.
- The NHLBI’s Cardiovascular Health Study (CHS) data show the rate of new and recurrent heart attacks per year in non-black men ages 65-74 was 26.3 per 1,000 population. For ages 75-84 it is 39.7, and for age 85 and older it is 53.6. For non-black women in the same age groups, the rates are 7.8, 21.0 and 24.2, respectively. For black men the rates are 16.3, 54.9 and 40.8, and for black women the rates are 13.3, 18.3 and 14.1, respectively.
- According to the NHLBI’s Strong Heart Study (1991–95), among American Indians ages 65-74 the rates (per 1,000) of new and recurrent heart attacks are 25.1 for men and 9.1 for women.
- During the first 10-year follow-up after the initial examination (1965-68) in the NHLBI’s Honolulu Heart Program, the average annual CHD incidence rate (per 1,000) in middle-aged Japanese-American men living in Hawaii was 4.6 for ages 45-49, 6.0 for ages 50-54, 7.2 for ages 55-59, 8.8 for ages 60-64, and 10.5 for ages 65-68.
- During the 19-year follow-up of this study (1966–84), the age-adjusted annual CHD mortality rate (per 1,000) decreased from 4.7 to 2.9, with an estimated annual decline of 2.7 percent. This trend is similar to that reported for U.S. white males of comparable ages in the same period.

Aftermath

- Because women have heart attacks at older ages, they are more likely to die from them within a few weeks than men are.
- Sudden death occurs at from 4-6 times the rate of the general population among people who've had a heart attack.
- 24 percent of men and 42 percent of women will die within 1 year after having a recognized MI.
- People who survive the acute stage of a heart attack have a chance of illness and death that’s 2-9 times higher than that of the general population. The risk of
another heart attack, sudden death, angina pectoris, heart failure and stroke — for both men and women — is substantial.

- Within 6 years after a recognized heart attack:
  - 21 percent of men and 33 percent of women will have another heart attack.
  - 7 percent of men and women will experience sudden death.
  - About 21 percent of men and 30 percent of women will be disabled with heart failure.

- About two-thirds of heart attack patients don’t make a complete recovery, but 88 percent of those under age 65 are able to return to their usual work. The outlook for people who have an unrecognized attack is about the same or worse.

- 1,325,000 males and 933,000 females diagnosed with CHD were discharged from hospitals in 1996. From 1979 to 1996 these discharges increased 30.7 percent for men and 28.9 percent for women.

- CHD is the leading cause of premature, permanent disability in the U.S. labor force, accounting for 19 percent of disability allowances by the Social Security Administration.

- In 1996, for people under age 65, the average cost of a coronary event from hospital admission to discharge was $22,720, and the average length of stay was 4.3 days.*

- According to data from the Health Care Financing Administration (HCFA), in 1995 $9.8 billion (a range of $3,769 to $11,110 per discharge) was paid to Medicare beneficiaries for CHD.

*Written permission to reprint these cost estimates must be obtained from Applied HealthCare Informatics, Inc., 157 Church Street, 25th Floor, New Haven, CT 06510.

### Angina Pectoris

(ICD/9 413)

About 6,200,000 Americans have angina pectoris (chest pain). That breaks down to 2,300,000 males and 3,900,000 females. A small number of deaths are coded as being from angina pectoris. These are included as a portion of total deaths from CHD.

- According to the NHLBI’s Framingham Heart Study, about 350,000 new cases of angina occur each year.
- 29 percent of men and 15 percent of women will develop angina within 6 years after a recognized heart attack.
- The estimated prevalence of angina is greater in women than in men. Angina rates were 4.1 percent for non-Hispanic white women, 5.2 percent for non-Hispanic black women and 4.6 percent for Mexican-American women. Rates for men in these three groups were 3.4, 2.6 and 3.4 percent, respectively. (Based on NHANES III [1988–91], CDC/NCHS.)
- The NHLBI’s Cardiovascular Health Study (CHS) data show the annual rate of new and recurrent episodes of angina per 1,000 population for non-black men ages 65-74 is 44.3, for ages 75-84 it is 56.4, and for age 85 and older it is 42.6. For non-black women in the same age groups the rates are 18.8, 30.8, and 19.8.
respectively. For black men the rates are 26.1, 52.2 and 43.5, and for black women the rates are 29.4, 37.7 and 15.2, respectively.

- About 47,000 males and 50,000 females diagnosed with angina pectoris were discharged from hospitals in 1996.
Coronary Heart Disease and Angina Pectoris

Hospital Discharges* for Coronary Heart Disease by Sex
United States: 1979-88

Yrs

1400
1200
1000
800
600
400
200
0
1979 81 83 85 87 89 91 93 95 96 98

Males
Females

* Hospital discharges include people both living and dead
Source: CDC/NCHS and the American Heart Association.