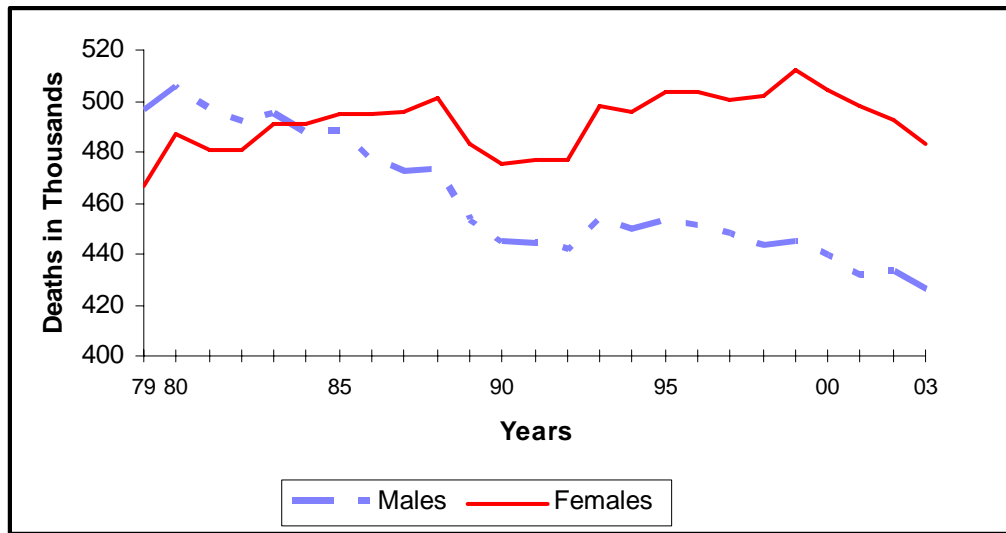


## Statistical Fact Sheet — Populations

### Women and Cardiovascular Disease

#### Cardiovascular Disease Mortality Trends for Males and Females

United States: 1979-2003



Source: CDC/NCHS. Preliminary underlying mortality for 2003.

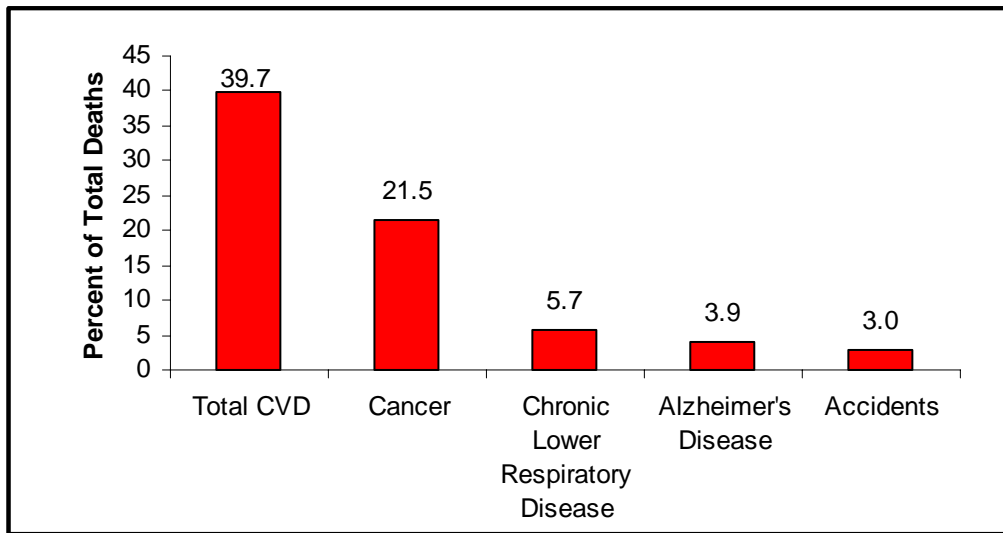
**Note:** Death rates are age-adjusted per 100,000 population, based on the 2000 U.S. standard. Some data are reported according to ICD/9 codes and some use ICD/10 codes.

#### Cardiovascular Disease (CVD) (ICD/10 codes I00-I99, Q20-Q28) (ICD/9 codes 390-459, 745-747)

- One in three female adults has some form of cardiovascular disease.
- Since 1984, the number of CVD deaths for females has exceeded those for males.
- In 2003 preliminary underlying CVD mortality was the cause of death in 483,842 females compared with 426,772 males. Females represent 53.1 percent of deaths from CVD.
- In the United States in 2003, all cardiovascular diseases combined claimed the lives of 483,842 females while all forms of cancer combined to kill 267,902 females. Breast cancer claimed the lives of 41,566 females; lung cancer claimed 67,894.
- The 2003 preliminary underlying death rate from CVD was 308.8. Death rates were
  - 256.2 for white females
  - 354.8 for black females.
- In 2003 cardiovascular disease was the first listed diagnosis of 3,196,000 females discharged from short-stay hospitals. Discharges include people both alive and dead.

**Leading Causes of Death for White Females**

United States: 2003

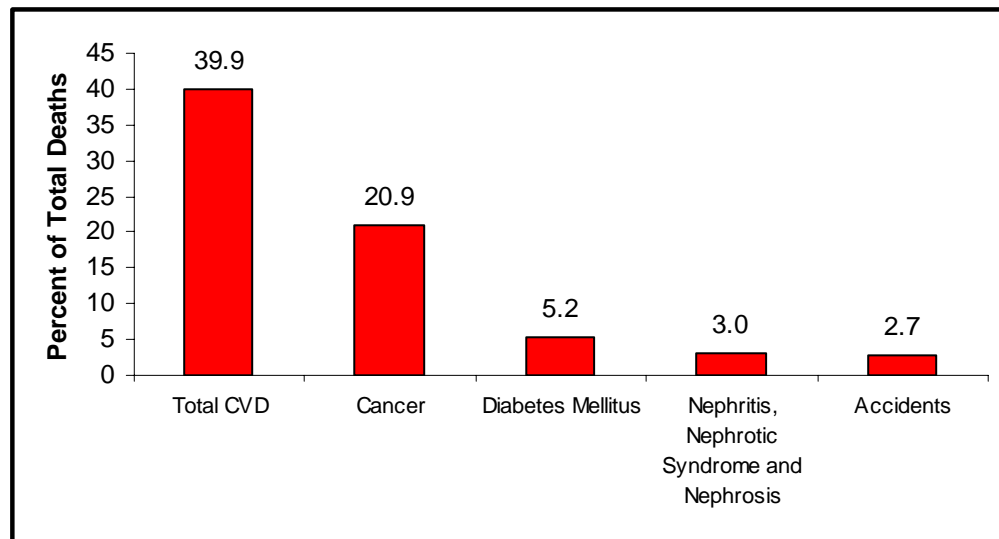


Note: Total CVD = Cardiovascular diseases including congenital cardiovascular defects. Preliminary data. In 2002, using the combined “Diseases of the Heart” and “Stroke” category, which represents about 90 percent of total CVD, the percentage was 36.8

Source: CDC/NCHS and NHLBI. Preliminary underlying mortality.

**Leading Causes of Death for Black or African-American Females**

United States: 2003

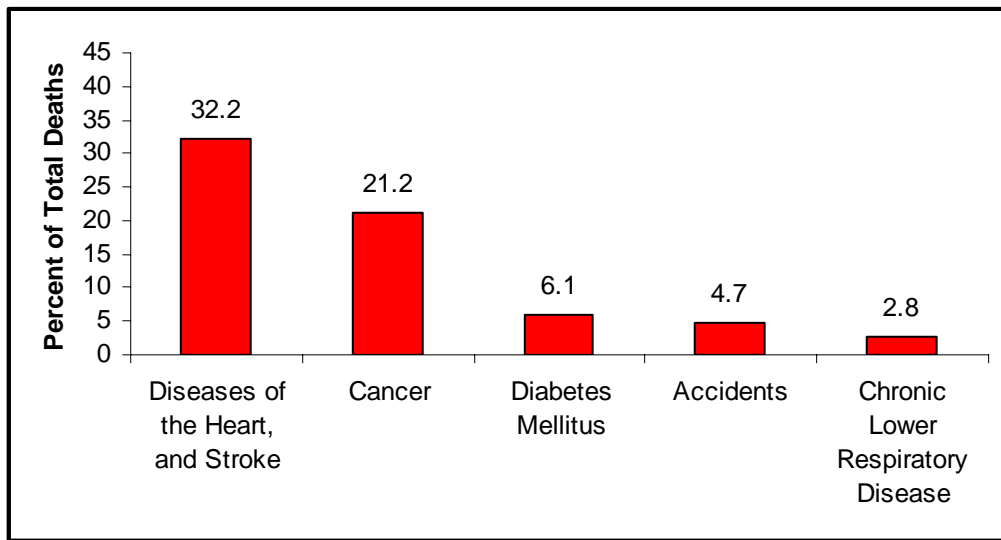


Note: Total CVD = Cardiovascular diseases including congenital cardiovascular defects. Preliminary data. In 2002, using the combined “Diseases of the Heart” and “Stroke” category, which represents about 90 percent of total CVD, the percentage was 36.0.

Source: CDC/NCHS and NHLBI. Preliminary underlying mortality.

**Leading Causes of Death for Hispanic or Latino Females**

United States: 2002

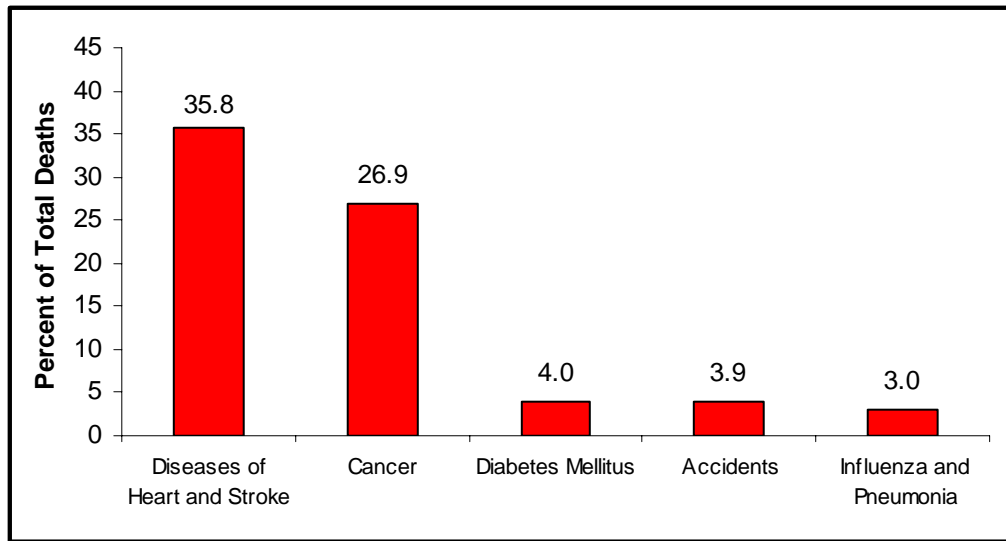


Note: Mortality data for Hispanics include all persons of Hispanic origin of any race. The combined “Diseases of the Heart” and “Stroke” category represents about 90 percent of “Total Cardiovascular Disease.”

Source: CDC/NCHS. Underlying mortality.

**Leading Causes of Death for Asian/Pacific Islander Females**

United States: 2002

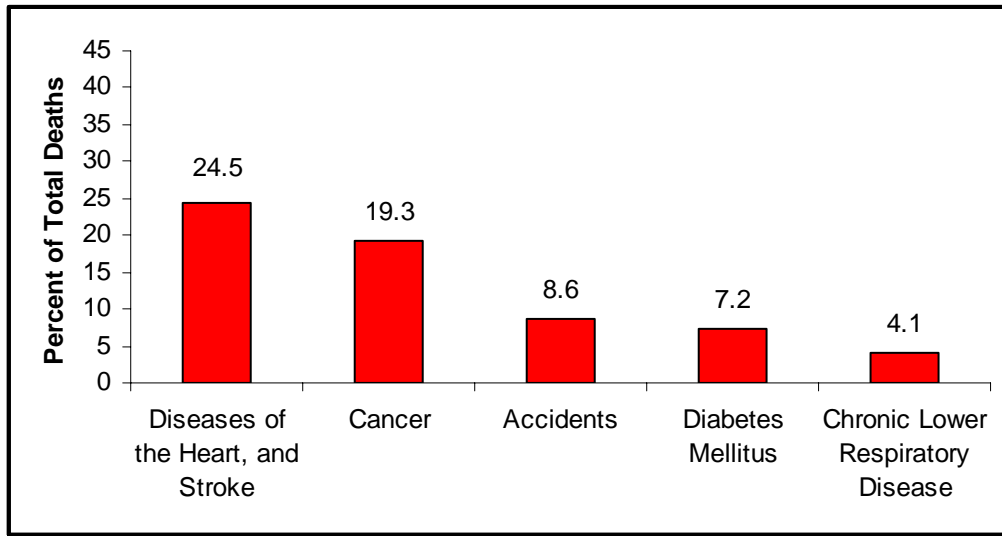


Note This Asian/Pacific Islander category includes people at high CVD risk (South Asian) and people at low CVD risk (Japanese). More specific data on these groups aren't available. The combined “Diseases of the Heart” and “Stroke” category represents about 90 percent of “Total Cardiovascular Disease.”

Source: CDC/NCHS. Underlying mortality.

**Leading Causes of Death for American Indian/Alaska Native Females**

United States: 2002

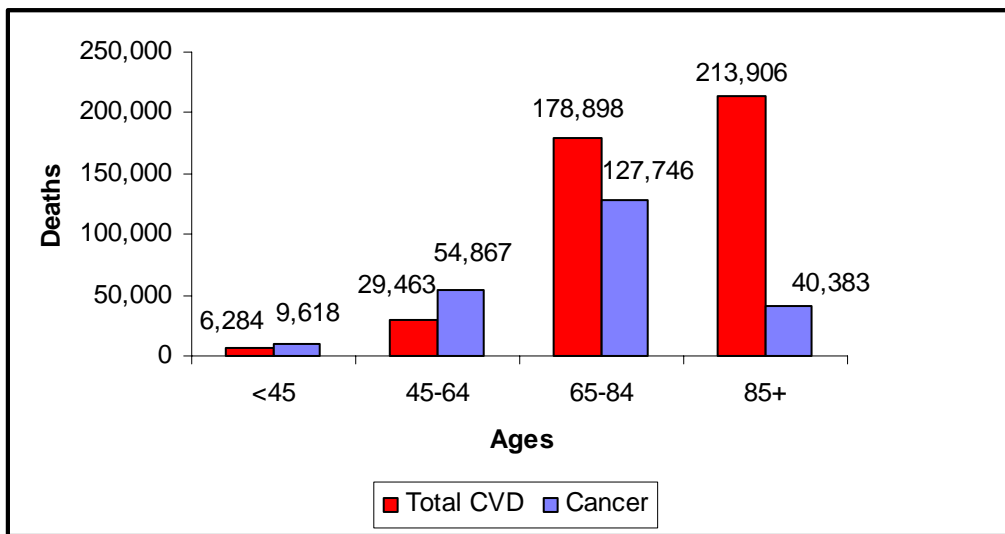


Note: The combined “Diseases of the Heart” and “Stroke” category represents about 90 percent of “Total Cardiovascular Disease.”

Source: CDC/NCHS. Underlying mortality.

**Deaths From Cardiovascular Diseases and Cancer for White Females by Age**

United States: 2002

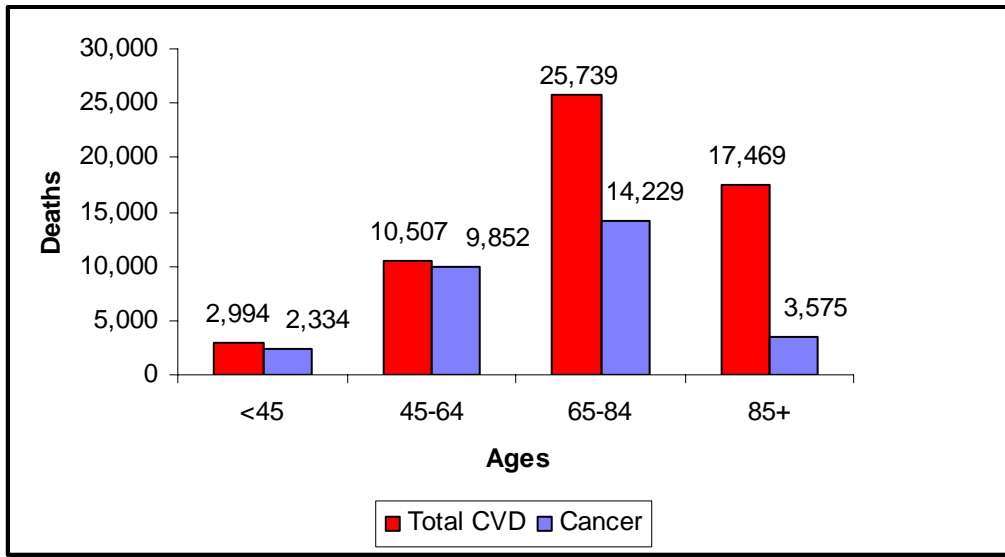


Note: Total CVD = Cardiovascular diseases including congenital cardiovascular defects.

Source: CDC/NCHS. Underlying mortality.

**Deaths From Cardiovascular Diseases and Cancer for Black Females by Age**

United States: 2002



Note: Total CVD = Cardiovascular diseases including congenital cardiovascular defects.

Source: CDC/NCHS. Underlying mortality.

**Coronary Heart Disease (CHD)** (ICD/10 codes I20-I25) (ICD/9 codes 410-414, 429.2)

- About 6.0 million females alive today have a history of heart attack, angina pectoris (chest pain or discomfort caused by reduced blood supply to the heart muscle) or both. Of these, about 3.0 million have a history of myocardial infarction (MI) (heart attack).
- Coronary heart disease rates in women after menopause are 2–3 times those of women the same age before menopause. (FHS, NHLBI)
- This year an estimated 485,000 women will have a new or recurrent coronary attack. Of these, about 345,000 will have a heart attack (MI). (ARIC [1987-2000], NHLBI)
- The annual rates per 1,000 population of new heart attacks, MI or CHD death in non-black women are
  - 6.8 for ages 65-74.
  - 14.2 for ages 75-84.
  - 33.2 for age 85 and older.
 For black women the rates are
  - 8.6 for ages 65-74.
  - 17.6 for ages 75-84
  - 24.8 for age 85 and older.

(CHS [1989-2000], NHLBI)

- CHD is the single-leading cause of death of American females, killing 233,886 in 2003. This represents nearly 49 percent of deaths from CHD. (preliminary underlying mortality)

- The 2003 overall preliminary underlying CHD death rate was 162.6. Death rates were
  - 125.1 for white females.
  - 160.3 for black females.
- 38 percent of women who have an initial recognized MI (heart attack) die within a year compared with 25 percent of men. In part because women have heart attacks at older ages than men do, they're more likely to die from them within a few weeks. *(FHS, NHLBI)*
- 64 percent of women who died suddenly of CHD had no previous symptoms. *(FHS, NHLBI)*
- Within six years after a recognized heart attack, 35 percent of women will have another heart attack, 11 percent will have a stroke, 6 percent will experience sudden cardiac death and 46 percent will be disabled with heart failure. *(FHS, NHLBI)*
- 834,000 females diagnosed with CHD were discharged from short-stay hospitals in 2003. From 1970 to 2003, discharges for females increased 40 percent.

**Angina Pectoris** (ICD/10 code I20) (ICD/9 code 413)

- Significantly more women than men have angina in total numbers (3.3 million vs. 3.2 million) and as an age-adjusted percentage. *(NHANES [1999-2002], CDC/NCHS)*
- Among women age 20 and older, the following have angina:
  - 3.5 percent of non-Hispanic whites.
  - 4.7 percent of non-Hispanic blacks.
  - 2.2 percent of Mexican Americans.

Estimates are age-adjusted. *(NHANES [1999-2002], CDC/NCHS and NHLBI)*

- The annual rates per 1,000 population of new and recurrent episodes of angina in non-black women are
  - 18.8 for ages 65-74.
  - 30.8 for ages 75-84.
  - 19.8 for age 85 and older.

For black women in these age groups the rates are

- 29.4 for ages 65-74.
- 37.7 for ages 75-84.
- 15.2 for age 85 and older.

*(CHS, NHLBI)*

- About 36,000 females diagnosed with angina pectoris were discharged from short-stay hospitals in 2003.

**Stroke** (ICD/10 codes I60-I69) (ICD/9 codes 430-438)

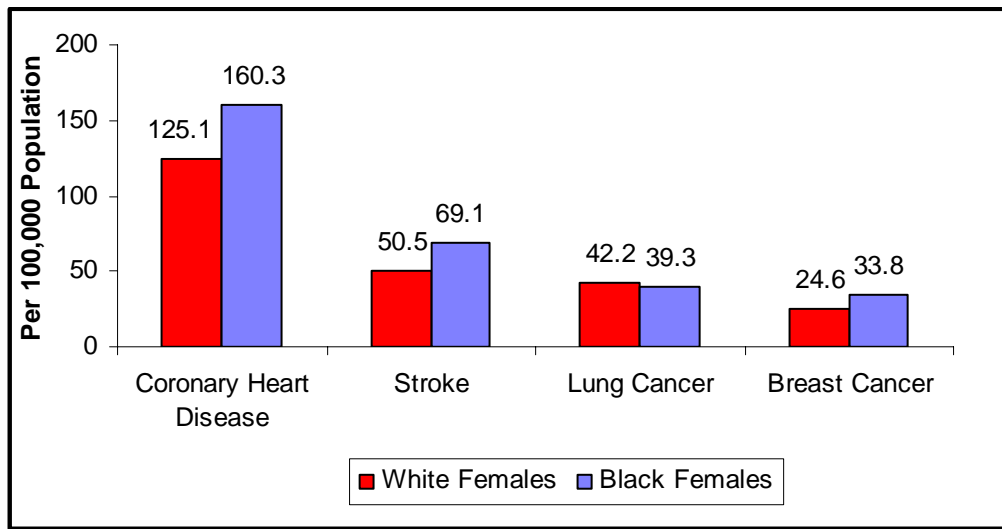
- An estimated 3.1 million female stroke survivors are alive today.
- Among women age 20 and older, the following have had a stroke:
  - 2.6 percent of NH whites.
  - 3.9 percent of NH blacks.
  - 1.8 percent of Mexican Americans.

Estimates are age-adjusted. *(NHANES [1999-2002], CDC/NCHS and NHLBI)*

- The prevalence of transient ischemic attack (TIA or mini-stroke) in women is:
  - 1.6 percent for ages 65-69.
  - 4.1 percent for ages 75-79.
 (CHS, NHLBI)
- Each year about 46,000 more women than men have a stroke. This is because the average life expectancy for women is greater than for men, and the highest rates for stroke are in the oldest age groups. (GCNKSS)
- The annual rate per 1,000 population of new and recurrent strokes in American Indian women ages 65-74 is 6.6. (SHS [1989-2002], NHLBI)
- 2003 preliminary underlying stroke mortality was 96,243 for females (61 percent of total stroke deaths).
- The 2003 overall preliminary underlying death rate for stroke was 54.3. Death rates were
  - 50.5 for white females.
  - 69.1 for black females.
- In 2003, 510,000 females were discharged from short-stay hospitals after having a stroke.

**Age-Adjusted Death Rates for Coronary Heart Disease, Stroke, and Lung and Breast Cancer for White and Black Females**

United States: 2003



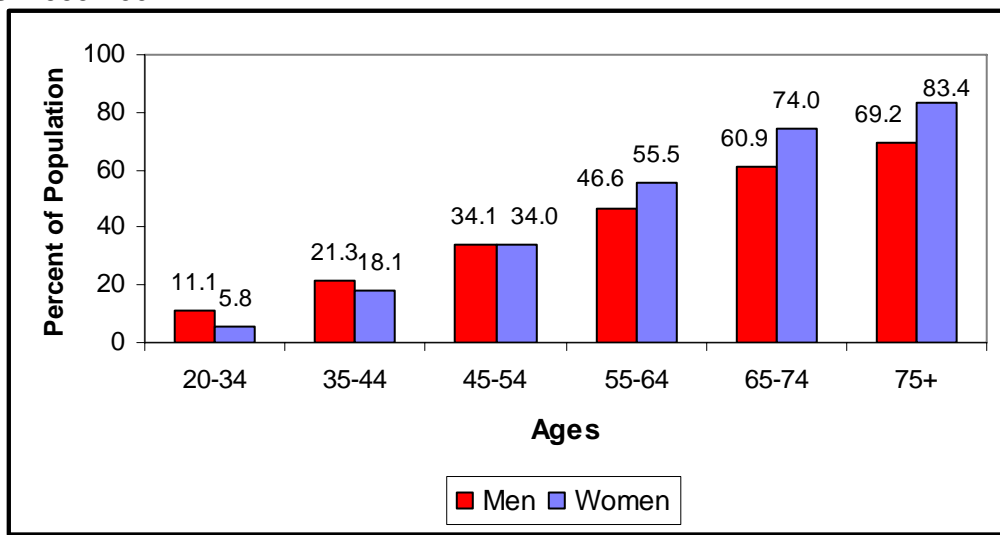
Source: CDC/NCHS and NHLBI. Preliminary underlying mortality.

**High Blood Pressure (HBP)** (ICD/10 codes I10-I15) (ICD/9 codes 401-404)

- Nearly one in three American adults has HBP. (*Hypertension. 2004;44:1-7*)
- A higher percentage of men than women have HBP until age 45. From 45-54 the percentage for women is slightly higher. After that a much higher percentage of women than men have HBP. (*Health, United States, 2004. CDC/NCHS*)
- Compared with white women, black women have an 85 percent higher rate of ambulatory medical care visits for hypertension. (*NCHS, 2001*)

**Prevalence of High Blood Pressure in Americans Age 20 and Older by Age and Sex**

NHANES: 1999-2002



Source: CDC/NCHS and NHLBI.

- In 2003, 31,065 females died from HBP. They represented 59 percent of the deaths from HBP. (Preliminary underlying mortality)
- The 2003 overall preliminary underlying death rate from HBP was 18.1. Death rates were
  - 14.5 for white females.
  - 40.8 for black females.
- As many as 20 percent of all deaths in hypertensive black women may be due to HBP. (*JNC V and VI*)
- 299,000 females diagnosed with HBP were discharged from short-stay hospitals in 2003.

**Congenital Cardiovascular Defects** (ICD/10 codes Q20-Q28) (ICD/9 codes 745-747)

- The 2002 overall underlying death rate for congenital cardiovascular defects was 1.4. Death rates were
  - 1.3 for white females.
  - 1.6 for black females.
- Crude infant death rates (under 1 year) were 41.5 for white babies and 51.7 for black babies. Some types of defects occur more commonly in females or males.
- 31,000 females were discharged from short-stay hospitals in 2003 with a diagnosis of congenital cardiovascular defects.

**Heart Failure (HF)** (ICD/10 code I50.0) (ICD/9 code 428.0)

- About 2.6 million females alive today have HF.
- The annual rates per 1,000 population of new and recurrent CHF events in non-black women are
  - 11.2 for ages 65-74.
  - 26.3 for ages 75-84.
  - 64.9 for age 85 and older.

For black women in these age groups the rates are

- 18.9 for ages 65-74.
- 33.5 for ages 75-84.
- 48.4 for age 85 and older.

*(CHS, NHLBI)*

- In 2003, 34,905 females died of heart failure (61 percent of deaths from HF). (preliminary underlying mortality).
- The 2003 overall preliminary underlying death rate from HF was 19.7. Death rates were
  - 18.4 for white females.
  - 20.4 for black females.
- 597,000 females diagnosed with HF were discharged from short-stay hospitals in 2003.

**Rheumatic Fever/Rheumatic Heart Disease (RF/RHD)** (ICD/10 codes I00-I09)  
(ICD/9 codes 390-398)

- 2003 preliminary underlying mortality showed 2,402 female deaths from rheumatic fever and rheumatic heart disease. This represents 67.6 percent of deaths from RF/RHD.
- The 2003 overall preliminary underlying death rate for RF/RHD was 1.2. Death rates were
  - 1.4 for white females.
  - 1.2 for black females.

## Tobacco

- Among Americans age 18 and older, 20.2 million women (18.5 percent) are smokers. (*MMWR, Vol. 54, No. 44, Nov. 11, 2005*)
- Among women age 18 and older, the following are smokers:
  - 20.4 percent of NH whites.
  - 17.2 percent of NH blacks.
  - 10.9 percent of Hispanics.
  - 4.8 percent of Asians only
  - 33.4 percent of American Indians/Alaska Natives.

(*MMWR, Vol. 54, No. 44, Nov. 11, 2005*)

## High Blood Cholesterol and Other Lipids

- Among children and adolescents ages 4-19, the mean total blood cholesterol level is 165 mg/dL. For boys it's 163 mg/dL and for girls it's 167 mg/dL. The racial/ethnic breakdown is
  - 166 mg/dL for NH white girls.
  - 171 mg/dL for NH black girls.
  - 165 mg/dL for Mexican-American girls.

(*NHANES III [1988-94], CDC/NCHS*)

- In 2003, 51.5 million adult women had total blood cholesterol levels of 200 mg/dL or higher. In adults, total cholesterol levels of 240 mg/dL or higher are considered high risk. Levels from 200 to 239 mg/dL are considered borderline-high risk. (NHANES [1999-2002], CDC/NCHS and NHLBI)
- Studies show that, beginning at age 45, a higher percentage of women than men have total blood cholesterol of 200 mg/dL or higher. (*Ford ES, et al. Serum cholesterol concentrations and awareness, treatment, and control of hypercholesterolemia among US adults: Findings from the National health and Nutrition Survey, 1999 to 2000. Circulation 2003;107:2185-9*)
- Among women ages 20 and older, the following have total blood cholesterol levels over 200 mg/dL:
  - 52.1 percent of NH whites.
  - 46.8 percent of NH blacks.
  - 44.8 percent of Mexican Americans..

Of these, the following have levels of 240 mg/dL or higher:

- 18.4 percent of NH whites .
- 17.4 percent of NH blacks .
- 13.6 percent of Mexican Americans.

Estimates are age-adjusted. (*NHANES [1999-2002], CDC/NCHS and NHLBI*)

- Among women age 20 and older, the following have an LDL cholesterol of 130 mg/dL or higher:
  - 36.9 percent of NH whites.
  - 34.5 percent of NH blacks.
  - 31.3 percent of Mexican Americans.

(*NHANES [1999-2002], CDC/NCHS*)

Low-density lipoprotein (LDL) or “bad” cholesterol levels of 130-159 mg/dL are considered borderline high. Levels of 160-189 mg/dL are classified as high, and levels of 190 mg/dL or higher are very high. Estimates are age-adjusted. (*Carroll MD, et al. Trends in serum lipids and lipoproteins of adults, 1960-2002. JAMA 2002;294:1773-81.*)

- Among women age 20 and older, the prevalences with an HDL cholesterol less than 40 mg/dL are
  - 12.4 percent of NH whites.
  - 11.3 percent of NH blacks.
  - 15.4 percent of Mexican Americans.

(*NHANES [1999-2002], CDC/NCHS and NHLBI*)

High-density lipoprotein (HDL) or “good” cholesterol levels of less than 40 mg/dL are associated with a higher risk of coronary heart disease. Estimates are age-adjusted.

### Physical Activity

- Among women age 18 and older, the following are sedentary (have no leisure-time physical activity):
  - 25.9 percent of all women.
  - 21.6 percent of NH whites
  - 33.9 percent of NH blacks
  - 39.6 percent of Hispanics
  - 24.0 percent of Asians/Pacific Islanders
  - 31.8 percent of American Indians or Alaska NativesData are age-adjusted. (*BRFSS, 2004. MMWR, Vol.54, No.39, Oct. 7, 2005*)

- Women, older people, NH blacks and Hispanics are the least-active groups in terms of overall physical activity. Those who are college-educated, in higher income brackets or living in the West are more active. Married and never married women are more likely than women in any other marital status group to engage in at least some physical activity.
- A study of over 72,000 female nurses indicates that moderate-intensity physical activity such as walking is associated with a substantial reduction in risk of total and ischemic stroke when compared with physical activity done at an average or casual pace. (*Hu FB, et al. Physical activity and risk of stroke in women. JAMA 2000;283:2961–7*)

### Overweight and Obesity

- Among children ages 6-11, the following are overweight or obese, using the 95<sup>th</sup> percentile of body mass index (BMI) values on the CDC 2000 growth chart:
  - 13.1 percent of NH white girls.
  - 22.8 percent of NH black girls.
  - 17.1 percent of Mexican-American girls

(*NHANES [1999-2002], CDC/NCHS*)

- Among adolescents ages 12-19, the following are overweight or obese, using the 95<sup>th</sup> percentile of BMI values on the CDC 2000 growth chart:
  - 12.7 percent of NH white girls.
  - 23.6 percent of NH black girls.
  - 19.9 percent of Mexican-American girls.

(*NHANES [1999-2002], CDC/NCHS*)

- Among women age 20 and older, the following are overweight or obese (BMI of 25.0 kg/m<sup>2</sup> and higher):
  - 57.2 percent of NH whites.
  - 77.2 percent of NH blacks.
  - 71.7 percent of Mexican Americans.

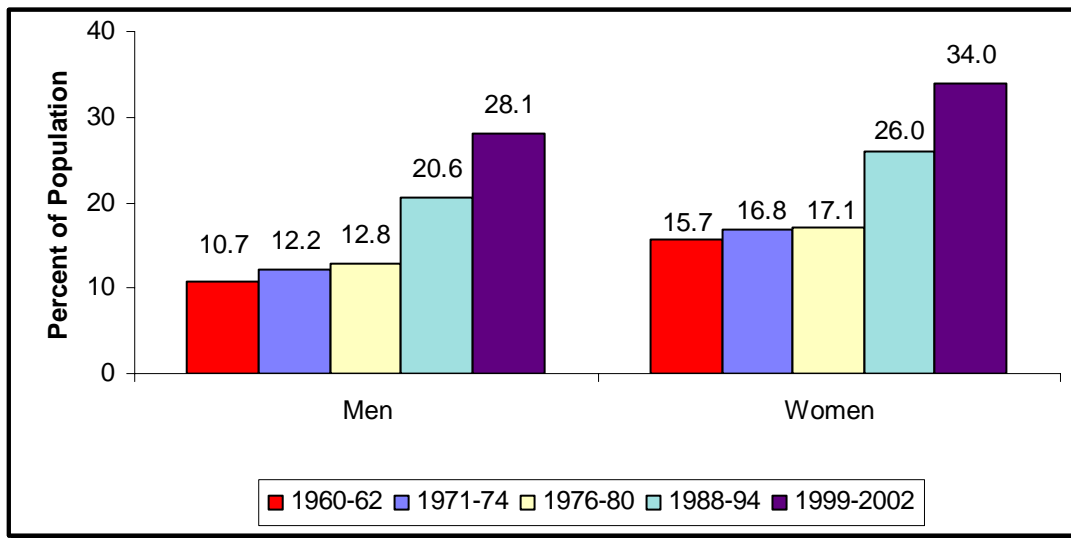
Of these, the following are obese (BMI of 30.0 kg/m<sup>2</sup> and higher):

- 30.7 percent of NH whites.
- 49.0 percent of NH blacks.
- 38.4 percent of Mexican Americans.

Estimates are age-adjusted. (NHANES [1999-2002], CDC/NCHS; Hedley AA, et al. Prevalence of overweight and obesity among US children, adolescents, and adults, 1999-2002. JAMA 2004;291:2847-50))

**Age-Adjusted Prevalence of Obesity in Americans Ages 20-74 by Sex and Survey**

NHES 1960-62 and NHANES: 1971-74, 1976-80, 1988-94 and 1999-2002



Note: Obesity is defined as a BMI (body mass index) of 30.0 and higher.

Source: Health, United States, 2004. CDC/NCHS).

**Diabetes Mellitus** (ICD/10 codes E10-E14) (ICD/9 code 250)

- Of the estimated 14.1 million Americans with **physician-diagnosed diabetes**, about 7.1 million are female. (NHANES [1999-2002], CDC/NCHS and NHLBI)
- In the total population age 20 and older, 6.3 percent of women have **physician-diagnosed diabetes**. The prevalences are
  - 4.7 percent of NH whites.
  - 12.6 percent of NH blacks.
  - 11.3 percent of Mexican Americans.

Estimates are age-adjusted. (NHANES [1999-2002], CDC/NCHS and NHLBI)

- Of the estimated 6.0 million Americans with **undiagnosed diabetes**, about 3.0 million are female.

- In the total population age 20 and older, 2.7 percent of women have **undiagnosed diabetes**, using American Diabetes Association criteria of fasting plasma glucose of 126 mg/dL or more. The prevalences are
  - 2.7 percent of NH whites.
  - 6.1 percent of NH blacks.
  - 1.8 percent of Mexican Americans.

Estimates are age-adjusted based on glucose tests of persons not previously diagnosed by a physician. (*NHANES [1999-2002], CDC/NCHS and NHLBI*)

- Of the estimated 14.7 million Americans with **pre-diabetes**, about 6.1 million are female.
- In the total population age 20 and older, 5.4 percent of women have **pre-diabetes**, using American Diabetes Association criteria of fasting plasma glucose of 110 to less than 126 mg/dL. The prevalences are
  - 4.6 percent of NH whites.
  - 5.9 percent of NH blacks.
  - 7.2 percent of Mexican Americans.

Estimates are age-adjusted. (*NHANES [1999-2002], CDC/NCHS and NHLBI*)

- In 2003 diabetes killed 38,748 females (52 percent of deaths from diabetes). (preliminary underlying mortality)
- The 2003 the overall preliminary underlying death rate from diabetes was 25.2. Death rates were
  - 20.0 for white females.
  - 47.3 for black females.
- 314,000 females diagnosed with diabetes mellitus were discharged from short-stay hospitals in 2003.

### Metabolic Syndrome

- The age-adjusted prevalence of the metabolic syndrome for adults is 23.7 percent.
  - Among African Americans, women have about a 57 percent higher prevalence than men. Among Mexican Americans, women have a 26 percent higher prevalence than men.

(*Ford ES, et al. Prevalence of the metabolic syndrome among US adults: findings from the Third National Health and Examination Survey. JAMA 2002;287:356–9*)

- The prevalences of women with the metabolic syndrome are
  - 22.9 percent of whites.
  - 20.9 percent of blacks.
  - 27.2 percent of Mexican Americans.

(*Park YW, et al. The metabolic syndrome prevalence and associated risk factor findings in the US population from the Third National Health and Nutrition Examination Survey, 1988-1994. Arch Intern Med 2003;163:427-36*)

## Nutrition

- In 1999–2000 the mean dietary intakes of energy and 10 key nutrients for women were:
  - Calories: 1,833 kcal
  - Protein: 14.6 percent of calories
  - Carbohydrate: 52.8 percent of calories
  - Total fat: 32.6 percent of calories
  - Saturated fat: 11.1 percent of calories
  - Cholesterol: 225 mg
  - Calcium: 765 mg
  - Folate: 319 micrograms (mcg)
  - Iron: 13.4 mg
  - Zinc: 9.7 mg
  - Sodium: 2,896 mg

*(NHANES [1999-2000] CDC/NCHS, 2003)*

- The average daily intake of total fat in the United States is 81.4 grams (g). For females the averages are
  - 67.3 g overall.
  - 67.4 g for NH whites.
  - 71.2 for NH blacks.
  - 66.5 for Mexican Americans.

*(NHANES III [1988-94], CDC/NCHS)*

- The average daily intake of saturated fat in the United States is 27.9 grams. For females the averages are
  - 23.0 g overall.
  - 23.1 g for NH whites.
  - 23.8 g for NH blacks.
  - 23.1 g for Mexican Americans.

*(NHANES III [1988-94], CDC/NCHS)*

- The recommended daily intake of dietary cholesterol for adults is less than 300 milligrams (mg). The average daily intake of dietary cholesterol in the United States is 269.6 mg. For females the averages are
  - 218.9 mg overall.
  - 209.1 mg for NH whites.
  - 245.6 mg for NH blacks.
  - 263.8 mg for Mexican Americans.

*(NHANES III [1988-94], CDC/NCHS)*

- The recommended daily intake of dietary fiber is 25 grams or more. Americans consume a daily average of 15.6 grams of dietary fiber. For females the averages are
  - 13.6 g overall.
  - 13.7 g for NH whites.
  - 12.0 g for NH blacks.
  - 15.9 g for Mexican Americans.

*(NHANES III [1988-94], CDC/NCHS)*

## Source Footnotes

ARIC – Atherosclerosis Risk in Communities

ATP III – Third Report of the National Cholesterol Education Program Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (National Heart, Lung, and Blood Institute)

CDC/NCHS – Centers for Disease Control and Prevention/National Center for Health Statistics

CHS – Cardiovascular Health Study

FHS – Framingham Heart Study

*JAMA* – *Journal of the American Medical Association*

JNC V – Fifth Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure

JNC VI – Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure

NH – non-Hispanic

NHANES – National Health and Nutrition Examination Survey

NHIS – National Health Interview Survey

NHLBI – National Heart, Lung, and Blood Institute

SHS – Strong Heart Study