

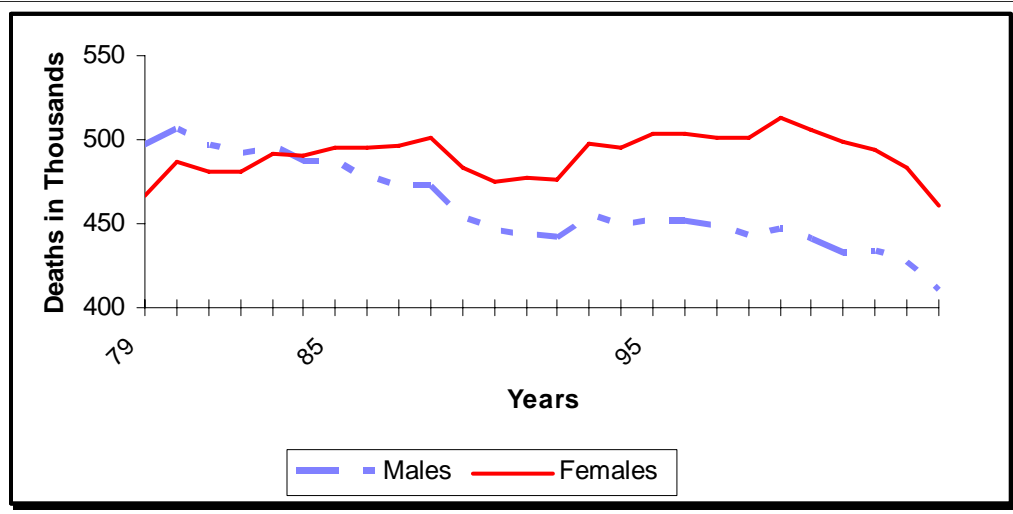
At-a-Glance Summary Tables

Diseases and Risk Factors	Both Sexes	Total Females	White Females	Black Females	Mexican-American Females
Total Cardiovascular Disease					
Prevalence 2004**	79.4 M (34.2%)	42.1 M (36.6%)	35.0%	49.0%	34.4%
Mortality 2004**	871.5 K	461.2 K	398.8 K	53.5 K	—
Coronary Heart Disease					
Prevalence 2004 CHD**	15.8 M (7.3%)	7.2 M (6.1%)	6.0%	7.8%	5.3%
Prevalence 2004 MI**	7.9 M (3.7%)	3.0 M (2.5%)	2.5%	3.3%	2.1%
Prevalence 2004 AP**	8.9 M (4.1%)	4.6 M (3.9%)	3.9%	4.3%	3.3%
New and recurrent CHD* ##	1.2 M	485.0 K	425.0 K	60.0 K	—
New and recurrent MI**	865.0 K	345.0 K	—	—	—
Incidence AP (stable angina)##	400.0 K	—	—	—	—
Mortality 2004 CHD**	452.3 K	219.1 K	191.5 K	23.6 K	—
Mortality 2004 MI**	157.6 K	74.5 K	64.7 K	8.4 K	—
Stroke					
Prevalence 2004**	5.7 M (2.6%)	3.3 M (2.6%)	2.7%	4.1%	1.9%
New and recurrent strokes**	700.0 K	373.0 K	312.0 K	61.0 K	—
Mortality 2004**	150.1 K	91.5 K	78.8 K	10.4 K	—
High Blood Pressure					
Prevalence 2004**	72.0 M (32.3%)	39.0 M	31.9%	46.6%	31.4%
Mortality 2004**	54.2 K	31.4 K	24.1 K	6.6 K	—
Congestive Heart Failure					
Prevalence 2004**	5.2 M (2.5%)	2.6 M (2.2%)	2.1%	3.3%	1.9%
Mortality 2004**	57.7 K	35.2 K	31.8 K	3.0 K	—
Tobacco					
Prevalence 2004 [†]	46.0 M (20.9%)	20.9 M (18.5%)	20.4%	17.2%	10.9% [†]
Blood Cholesterol					
Prevalence 2004:					
Total cholesterol 200 mg/dL+**	105.2 M (48.4%)	55.2 M (48.6%)	49.7%	42.1%	50.0%
Total cholesterol 240 mg/dL+**	36.6 M (16.8%)	19.7 M (17.1%)	18.2%	12.5%	14.2%
LDL cholesterol 130 mg/dL+**	79.3 M (32.5%)	38.6 M (32.4%)	33.8%	29.8%	30.7%
HDL cholesterol <40 mg/dL**	44.1 M (16.7%)	12.3 M (9.1%)	8.8%	6.9%	13.0%
Physical Activity^{††}					
Prevalence 2004 [†]	30.1%	29.0%	31.8%	19.6%	21.8% [†]
Overweight and Obesity					
Prevalence 2004:					
Overweight BMI 25.0 or higher**	140.0 M (66.0%)	68.0 M (61.6%)	57.6%	79.6%	73.0%
Obesity BMI 30.0 or higher**	66.0 M (31.4%)	36.0 M (33.2%)	30.7%	51.1%	39.4%
Diabetes Mellitus					
Prevalence 2004:					
Physician-diagnosed diabetes [†]	15.2 M (7.1%)	7.9 M (6.9%)	5.6%	13.2%	10.9%
Undiagnosed diabetes [†]	5.0 M (2.4%)	2.1 M (1.9%)	1.7%	2.3%	3.1%
Pre-diabetes [†]	56.5 M (27.6%)	24.2 M (21.7%)	21.6%	20.5%	22.6%
Incidence [†]	1.5 M	—	—	—	—
Mortality (diabetes) **	72.8 K	37.8 K	29.4 K	7.2 K	—

Note: AP = angina pectoris (chest pain); BMI = body mass index; CHD = coronary heart disease; includes heart attack, angina pectoris (chest pain) or both; CVD = cardiovascular disease; K = thousands; M = millions; MI = myocardial infarction (heart attack); mg/dL = milligrams per deciliter; (—) = data not available; * = new and recurrent heart attacks and fatal CHD; ** = age 20+; [†] = age 18+; ** = all ages (mortality data are for whites and blacks); ## = age 35+; [†] = Hispanic; ^{††} = regular leisure-time physical activity.

Cardiovascular Disease Mortality Trends for Males and Females

United States: 1979–2004



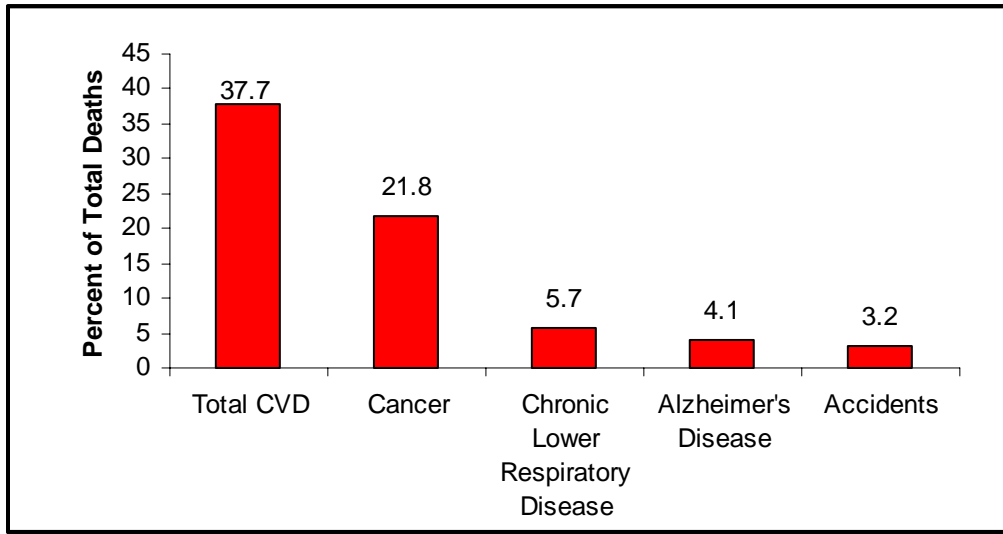
Source: NCHS and NHLBI. Note: The overall comparability for CVD between the ICD/9 (1979–98 and ICD/10 (1999–04) is 0.9962. No comparability ratios were applied. Death rates are age-adjusted per 100,000 population, based on the 2000 U.S. standard. Some data are reported according to ICD/9 codes and some 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 2004, CVD was the cause of death in 461,152 females. Females represent 52.9 percent of deaths from CVD.
- In the United States in 2004, all cardiovascular diseases combined claimed the lives of 461,152 females while all forms of cancer combined to kill 265,013 females. Breast cancer claimed the lives of 40,539 females; lung cancer claimed 67,838.
- The 2004 death rate from CVD was 288.6. Death rates were
 - 239.3 for white females
 - 331.6 for black females.
- In 2004, CVD was the first listed diagnosis of 3,136,000 females discharged from short-stay hospitals. Discharges include people both alive, dead or of unknown status.

Causes of Death for White Females

United States: 2004

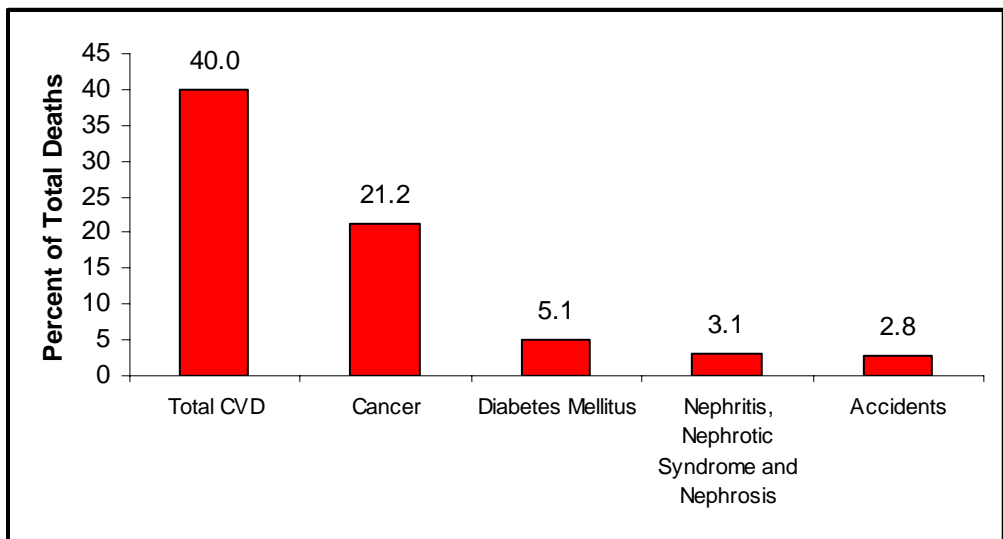


Note: In 2004, using the combined “Diseases of the Heart” and “Stroke” category, which does not constitute total CVD, the percentage was 34.9.

Source: NCHS and NHLBI.

Causes of Death for Black or African-American Females

United States: 2004

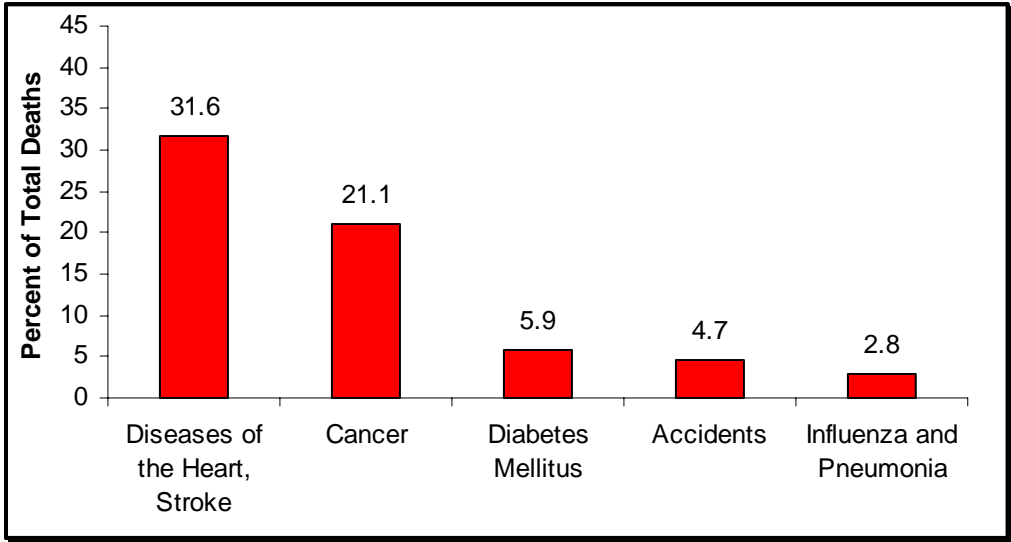


Note: In 2004, using the combined “Diseases of the Heart” and “Stroke” category, which represents about 90 percent of total CVD, the percentage was 34.8.

Source: NCHS and NHLBI.

Causes of Death for Hispanic or Latino Females

United States: 2003

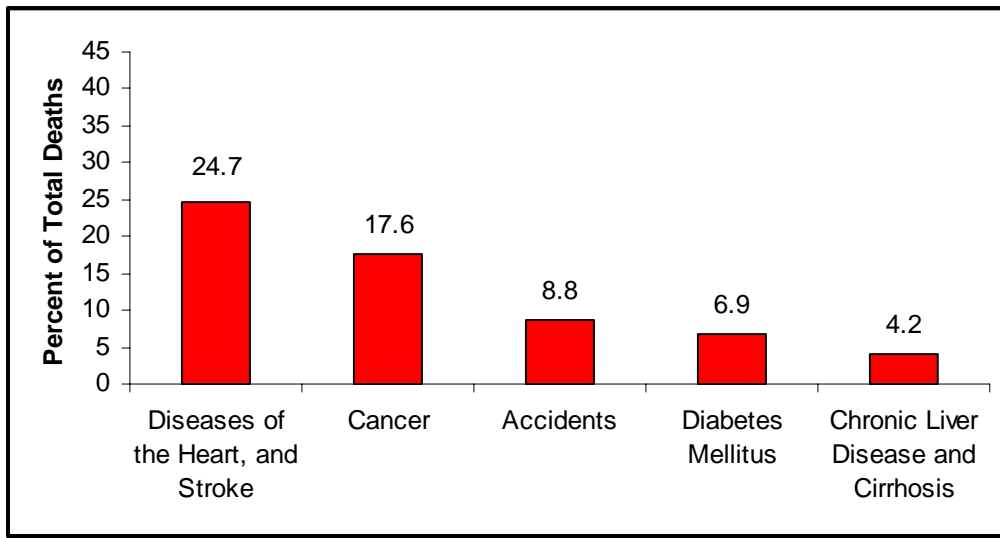


Note: Mortality data for Hispanics include all persons of Hispanic origin of any race. The combined “Diseases of the Heart” and “Stroke” category does not constitute total cardiovascular disease.

Source: NCHS.

Causes of Death for American Indian/Alaska Native Females

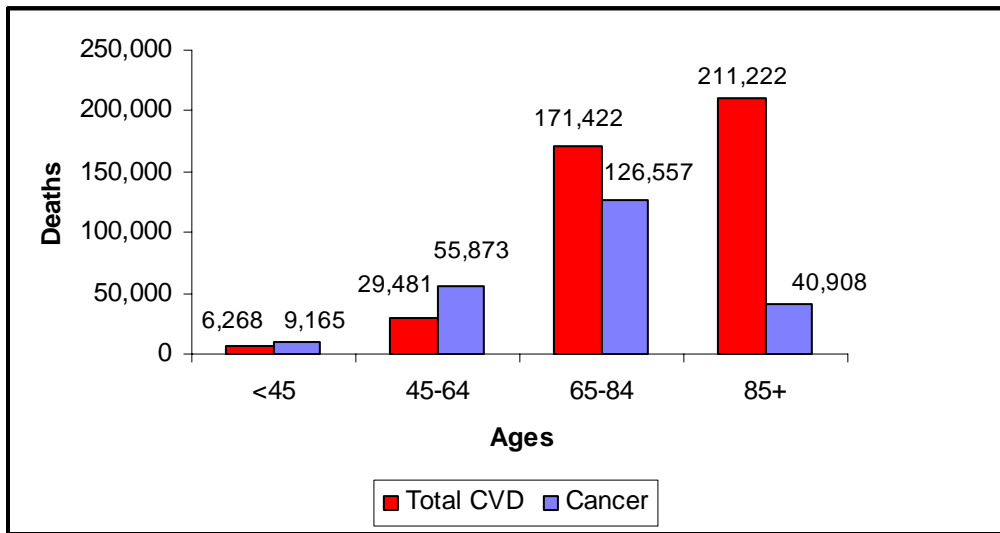
United States: 2003



Note: The combined "Diseases of the Heart" and "Stroke" category does not constitute total cardiovascular disease.
 Source: NCHS.

Deaths From Cardiovascular Diseases and Cancer for White Females by Age

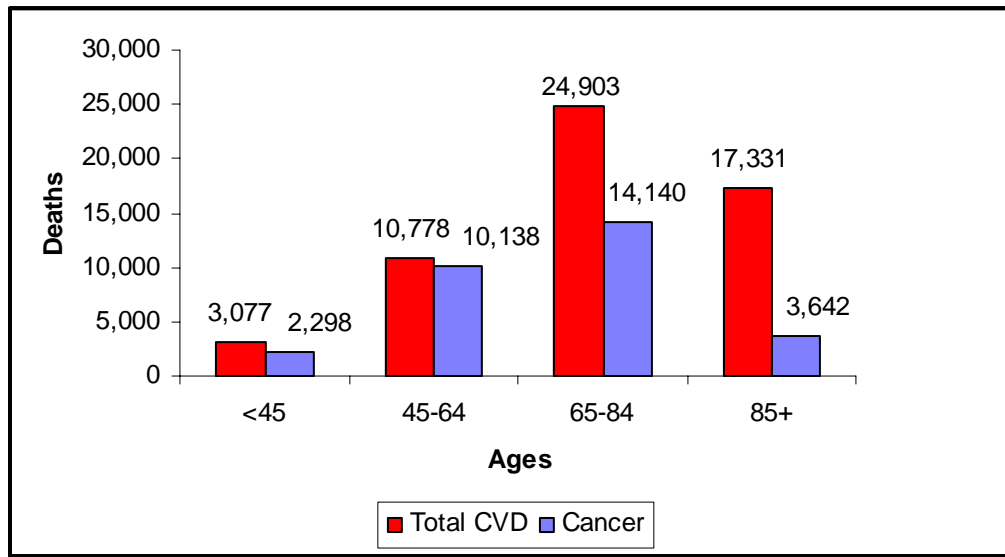
United States: 2003



Source: NCHS.

Deaths From Cardiovascular Diseases and Cancer for Black Females by Age

United States: 2003



Source: NCHS.

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

- About 7.2 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, 3.0 million have a history of myocardial infarction (MI, or heart attack).
- CHD 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 2004 overall CHD death rate was 150.5. Death rates were
 - 115.4 for white females.
 - 148.6 for black females.
- 23 percent of women age 40 and older who have an initial recognized MI (heart attack) die within a year compared with 18 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, ARIC and CHS. NHLBI)
- 64 percent of women who died suddenly of CHD had no previous symptoms. (FHS, NHLBI)
- Within five years after a first MI, 22 percent of women ages 40–69 and 25 percent age 70+ will have another MI or fatal CHD; 6 percent ages 40–69 and 11 percent age 70+ will have a stroke, 1.9 percent of white women, 1.4 percent of black women ages 40–69 and 3.5 percent of white women, 4.8 percent of black women age 70+ will experience sudden cardiac death; and 12 percent ages 40-69, 25 percent age 70+ will have heart failure. (FHS, ARIC, CHS. NHLBI)
- 801,000 females diagnosed with CHD were discharged from short-stay hospitals in 2004.

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

- More women than men have angina in total numbers (4.6 million vs. 4.3 million). (*NHANES [1999-2004], NCHS and NHLBI*)
- Among women age 20 and older, the following have angina:
 - 3.9 percent of non-Hispanic whites.
 - 4.3 percent of non-Hispanic blacks.
 - 3.3 percent of Mexican Americans.

(*NHANES [1999-2004], NCHS and NHLBI*)
- The annual rates per 1,000 population of new and recurrent episodes of angina in non-black women are
 - 14.1 for ages 65–74.
 - 20.0 for ages 75–84.
 - 22.9 for age 85 and older.

For black women in these age groups the rates are

 - 15.3 for ages 65–74.
 - 23.6 for ages 75–84.
 - 35.9 for age 85 and older.

(*CHS, NHLBI*)
- About 24,000 females diagnosed with angina pectoris were discharged from short-stay hospitals in 2004.

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

- An estimated 3.3 million female stroke survivors are alive today.
- Among women age 20 and older, the following have had a stroke:
 - 2.7 percent of non-Hispanic whites.
 - 4.1 percent of non-Hispanic blacks.
 - 1.9 percent of Mexican Americans.

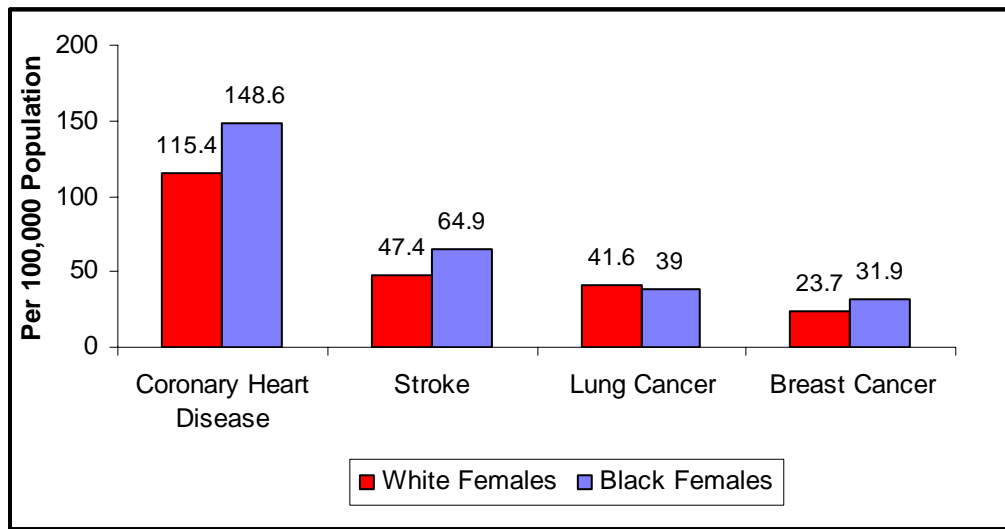
(*NHANES [1999-2004], NCHS and NHLBI*)
- The prevalence of transient ischemic attack (TIA or mini-stroke) in women is estimated to be:
 - 1.6 percent for ages 65–69.
 - 4.1 percent for ages 75–79.

(*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*)
- 2004 stroke mortality was 91,487 for females (60.9 percent of total stroke deaths).

- The 2004 overall death rate for stroke was 50.0. Death rates were
 - 47.4 for white females.
 - 64.9 for black females.
- In 2004, 490,000 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: 2004



Source: NCHS and NHLBI.

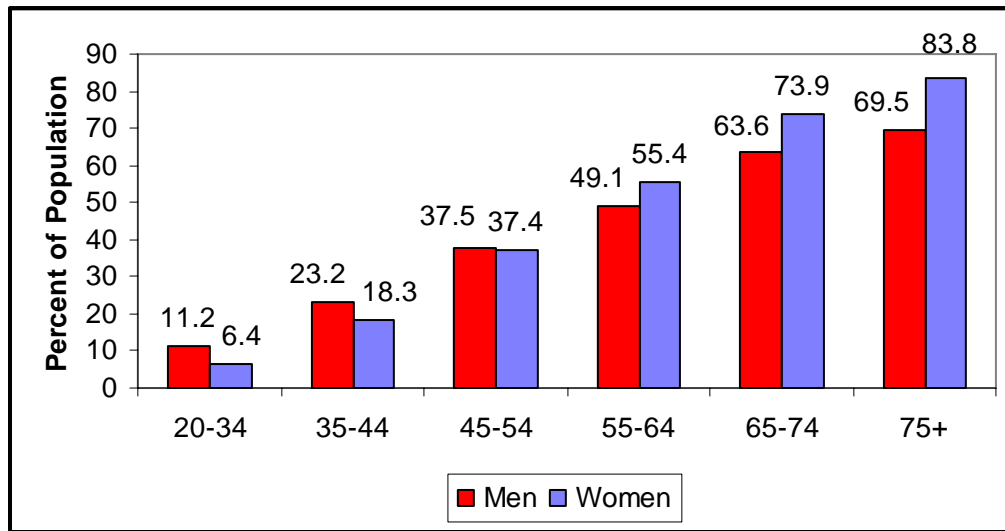
High Blood Pressure (HBP) (ICD/10 codes I10-I15) (ICD/9 codes 401-404)

- 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 men and women are similar. After that a much higher percentage of women than men have HBP. (*Health, United States, 2005./NCHS*)
- Among women age 20 and older, the following have HBP:
 - 31.9 percent of non-Hispanic whites.
 - 46.6 percent of non-Hispanic blacks.
 - 31.4 percent of Mexican Americans.

(*NHANES [1999-2004], NCHS and NHLBI*)

- 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 Adults Age 20 and Older by Age and Sex
NHANES: 1999–2004



Source: NCHS and NHLBI.

- In 2004, 31,392 females died from HBP. They represented 58 percent of the deaths from HBP. The 2004 overall death rate from HBP was 17.9. Death rates were
 - 14.3 for white females.
 - 40.6 for black females.
- 322,000 females diagnosed with HBP were discharged from short-stay hospitals in 2004.

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

- The 2003 overall death rate for congenital cardiovascular defects was 1.4. Death rates were
 - 1.2 for white females.
 - 1.4 for black females.
- Crude infant death rates (under one year) were 39.5 for white infants and 52.3 for black infants. Some types of defects occur more commonly in females or males.
- 37,000 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 HF events in white women are
 - 8.2 for ages 65–74.
 - 19.8 for ages 75–84.
 - 45.6 for age 85 and older.

For black women in these age groups the rates are

- 14.2 for ages 65–74.
- 25.5 for ages 75–84.
- 44.0* for age 85 and older.

(CHS, NHLBI) * - Unreliable estimate.

- In 2004, 35,199 females died of HF (61 percent of deaths from HF).
- The 2003 overall death rate from HF was 19.1. Death rates were
 - 18.3 for white females.
 - 19.0 for black females.
- 575,000 females diagnosed with HF were discharged from short-stay hospitals in 2004.

Rheumatic Fever/Rheumatic Heart Disease (RF/RHD) (ICD/10 codes I00-109)
(ICD/9 codes 390-398)

- 2004 mortality showed 2,226 female deaths from rheumatic fever (RF) and rheumatic heart disease (RHD). This represents 69.6 percent of deaths from RF/RHD.
- The 2004 overall death rate for RF/RHD was 1.1. Death rates were
 - 1.3 for white females.
 - 1.0 for black females.

Tobacco

- Among Americans age 18 and older, 20.9 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 non-Hispanic whites.
 - 17.2 percent of non-Hispanic blacks.
 - 10.9 percent of Hispanics.
 - 4.8 percent of Asians only
 - 28.5 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 non-Hispanic white girls.
 - 171 mg/dL for non-Hispanic black girls.
 - 165 mg/dL for Mexican-American girls.

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

- In 2004, 55.2 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 [1999-2004], NCHS and NHLBI*)
- Among women ages 20 and older, the following have total blood cholesterol levels over 200 mg/dL:
 - 49.7 percent of non-Hispanic whites.
 - 42.1 percent of non-Hispanic blacks.
 - 50.0 percent of Mexican Americans.

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

- 18.2 percent of non-Hispanic whites.

- 12.5 percent of non-Hispanic blacks.
- 14.2 percent of Mexican Americans.

(NHANES [1999-2004] NCHS and NHLBI)

- Among women age 20 and older, the following have an LDL cholesterol of 130 mg/dL or higher:
 - 33.8 percent of non-Hispanic whites.
 - 29.8 percent of non-Hispanic blacks.
 - 30.7 percent of Mexican Americans.

(NHANES [1999-2004], NCHS and NHLBI)

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;294:1773-1781.)*

- Among women age 20 and older, the prevalences with an HDL cholesterol less than 40 mg/dL are
 - 8.8 percent of non-Hispanic whites.
 - 6.9 percent of non-Hispanic blacks.
 - 13.0 percent of Mexican Americans.

(NHANES [1999-2004], 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 Inactivity

- 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 non-Hispanic whites
 - 33.9 percent of non-Hispanic blacks
 - 39.6 percent of Hispanics
 - 24.0 percent of Asians/Pacific Islanders
 - 31.8 percent of American Indians or Alaska Natives

(BRFSS, 2004. MMWR, Vol.54, No.39, Oct. 7, 2005)

- Women, older people, non-Hispanic 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 95th percentile of body mass index (BMI) values on the CDC 2000 growth chart:
 - 15.6 percent of non-Hispanic white girls.
 - 24.8 percent of non-Hispanic black girls.
 - 16.6 percent of Mexican-American girls

(NHANES [1999-2004], NCHS)

- Among adolescents ages 12–19, the following are overweight or obese, using the 95th percentile of BMI values on the CDC 2000 growth chart:
 - 14.6 percent of non-Hispanic white girls.
 - 23.8 percent of non-Hispanic black girls.
 - 17.1 percent of Mexican-American girls.

(NHANES [1999-2004], NCHS)

- Among women age 20 and older, the following are overweight or obese (BMI of 25.0 kg/m² and higher):
 - 57.6 percent of non-Hispanic whites.
 - 79.6 percent of non-Hispanic blacks.
 - 73.0 percent of Mexican Americans.

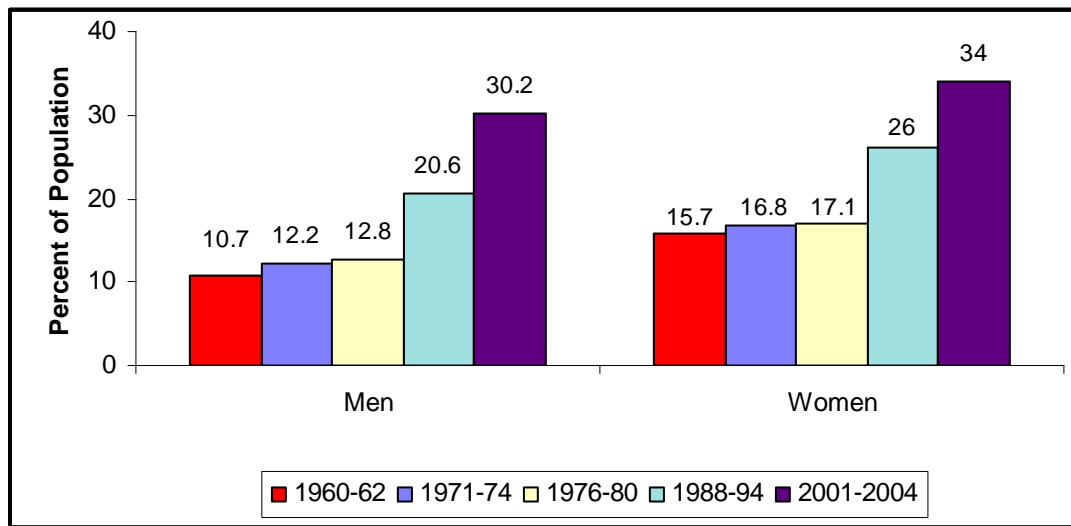
Of these, the following are obese (BMI of 30.0 kg/m² and higher):

- 30.7 percent of non-Hispanic whites.
- 51.1 percent of non-Hispanic blacks.
- 39.4 percent of Mexican Americans.

(NHANES [2001-2004], NCHS;

Age-Adjusted Prevalence of Obesity in Adults Ages 20–74 by Sex and Survey

NHES 1960–62 and NHANES: 1971–74, 1976–80, 1988–94 and 2001–04



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

Source: Health, United States, 2006. Unpublished data. NCHS).

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

- Of the estimated 15.2 million Americans with physician-diagnosed diabetes, about 7.9 million are female. (NHANES [1999-2004], NCHS and NHLBI)

- In the total population age 20 and older, 6.9 percent of women have physician-diagnosed diabetes. The prevalences are
 - 5.6 percent of non-Hispanic whites.
 - 13.2 percent of non-Hispanic blacks.
 - 10.9 percent of Mexican Americans.

(NHANES [1999-2004], NCHS and NHLBI)
- Of the estimated 5.0 million Americans with undiagnosed diabetes, about 2.1 million are female.
- In the total population age 20 and older, 1.9 percent of women have undiagnosed diabetes, using American Diabetes Association criteria of fasting plasma glucose of 126 mg/dL or more. The prevalences are
 - 1.7 percent of non-Hispanic whites.
 - 2.3 percent of non-Hispanic blacks.
 - 3.1 percent of Mexican Americans.

Estimates are based on glucose tests of persons not previously diagnosed by a physician.
(NHANES [1999-2004], NCHS and NHLBI)

- Of the estimated 56.5 million Americans with pre-diabetes, about 24.2 million are female.
- In the total population age 20 and older, 21.7 percent of women have pre-diabetes, using American Diabetes Association criteria of fasting plasma glucose of 100 to less than 126 mg/dL. The prevalences are
 - 21.6 percent of non-Hispanic whites.
 - 20.5 percent of non-Hispanic blacks.
 - 22.6 percent of Mexican Americans.

(NHANES [1999-2004] NCHS and NHLBI)
- In 2004 diabetes killed 37,771 females (51.9 percent of deaths from diabetes).
- The 2004 the overall death rate from diabetes was 24.4. Death rates were
 - 19.2 for white females.
 - 44.9 for black females.

- 300,000 females diagnosed with diabetes mellitus were discharged from short-stay hospitals in 2004.

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 79 grams (g). For females the average was 67 grams overall. *(NHANES [1999-2000], NCHS)*
- The average daily intake of saturated fat in the United States is 27 grams. For females the overall average was 23 grams. *(NHANES [1999-2000], 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 265 mg. For females the average was
 - 225 mg overall.*(NHANES [1999-2000], 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 non-Hispanic whites.
 - 12.0 g for non-Hispanic blacks.
 - 15.9 g for Mexican Americans.

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

Source Footnotes

ARIC – Atherosclerosis Risk in Communities, NHLBI

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)

NCHS – National Center for Health Statistics

CHS – Cardiovascular Health Study, NHLBI

FHS – Framingham Heart Study, NHLBI

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, NCHS
NHIS – National Health Interview Survey, NCHS
NHLBI – National Heart, Lung, and Blood Institute
SHS – Strong Heart Study, NHLBI

For additional information see the Heart Disease and Stroke Statistics – 2007 Update, published in Circulation, available on our Web site.