American Heart Association®
Fighting Heart Disease and Stroke

Statistical Fact Sheet — Populations

Youth and Cardiovascular Diseases — Statistics

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.

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

- About 40,000 babies are born each year with congenital heart defects.

- At least 35 distinct types of defects are recognized, ranging from simple defects to complex malformations. Common defects diagnosed in infancy include
  - ventricular septal defect (14-17 percent).
  - tetralogy of Fallot (9-12 percent).
  - transposition of the great arteries (10-11 percent).
  - coarctation of the aorta (8-11 percent).
  - atrioventricular septal defect (4-10 percent).

  Most defects can be corrected or improved with surgery or catheter-based therapy.

- 51.9 percent of deaths from congenital cardiovascular defects in 2000 occurred in people under age 15. Crude infant death rates (under 1 year) were 45.7 for white babies and 62.8 for black babies.

End-Stage Renal Disease (ICD/10 code N18.0)

- The average incidence rates for pediatric ESRD are more than twice as high among children 15-19 years as for children 10-14 years. The rates are more than 3 times higher than those for children ages 0-4 and 5-9.

- Children with pediatric ESRD have high transplantation rates. More than 44 percent of children starting therapy received a transplant during the first year of therapy, compared with 10 percent of patients 20-64 years of age at ESRD incidence.

Cardiomyopathy (ICD/10 code I42) (ICD/9 code 425)

- Recent studies show that 36 percent of young athletes who die suddenly have probable or definite hypertrophic cardiomyopathy.

Kawasaki Disease (ICD/10 M30.3) (ICD/9 code 446.1)

- About 80 percent of patients with Kawasaki disease are under age 5. Most are under age 2. Children older than 8 years are rarely affected.

- Up to 2,500 cases of Kawasaki disease are diagnosed yearly. It occurs more often among boys (63 percent) and among those of Asian ancestry.

Tobacco Smoke

- According to a 2001 survey of students in grades 9-12,
  - 38.5 percent of male students and 29.5 percent of female students report current tobacco use.
  - 22.1 percent of males and 8.5 percent of females report current cigar use.
  - 14.8 percent of males and 1.9 percent of females report current smokeless tobacco use.

  (Youth Risk Behavior Surveillance [YRBS], United States, 2001, *MMWR*, Vol. 51, No. SS-4, June 28,2002, CDC/NCHS)

- In 1996 about 15 million children and adolescents under age 18 were exposed to environmental tobacco smoke in the home. (*MMWR*, Vol. 46, No. 44, Nov. 7, 1997, CDC/NCHS)

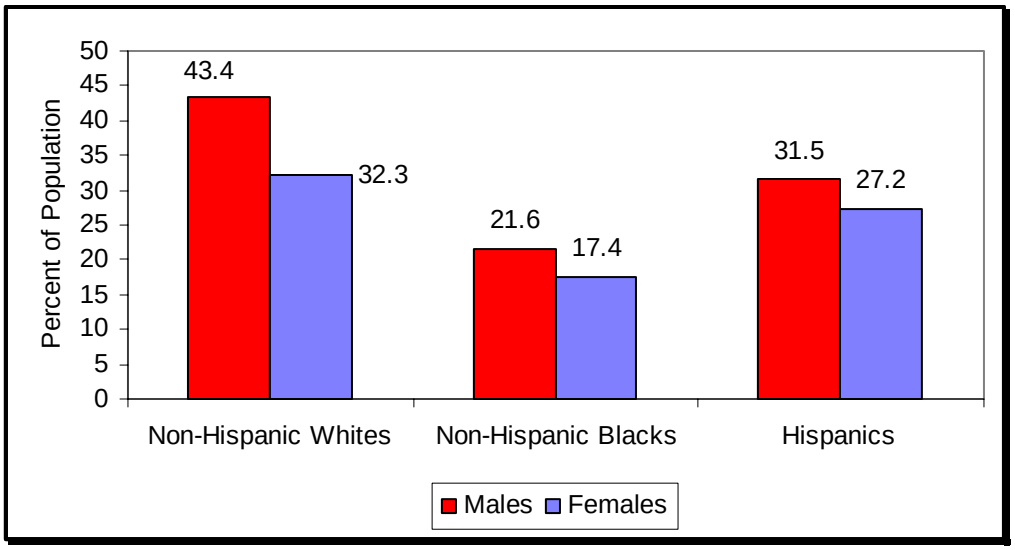
- About 80 percent of people who use tobacco begin before age 18, with the most common ages of initiation being 14 to 15. (*MMWR*, Vol. 48, No. 31, Aug. 1999, CDC/NCHS)

- From 1980 to 2001, the percentage of high school seniors who smoked in the past month decreased 3.3 percent.
  - For males it increased 10.8 percent.
  - For females it decreased 14.1 percent.
  - For whites it increased 10.0 percent.
  - For blacks it **decreased** 48.8 percent.

  (*Health United States 2002*, CDC/NCHS)

Prevalence of High School Students Using any Tobacco Product Within the Last 30 Days by Race/Ethnicity and Sex

United States: 2001



Source: YRBS, United States, 2001, MMWR, Vol. 51 No. SS-4, June 28, 2001, CDC/NCHS.

- During 1988-96, among people 12-17 years old, the incidence of initiation of first use increased by 30 percent, and first daily use increased by 50 percent.
  - More than 6,000 people under age 18 try a cigarette each day, and each day more than 2,000 of them become daily smokers.
  - If trends continue, about 5 million of these people eventually will die from a disease attributed to smoking.

  (NHSDA, analyzed by the CDC/NCHS and the SAMHSA)

High Blood Cholesterol and Other Lipids

- Among children and adolescents ages 4-19,
  - Females have significantly higher mean total cholesterol and low-density lipoprotein (LDL) or "bad" cholesterol levels than do males.
  - Non-Hispanic black children and adolescents have significantly higher mean total cholesterol, LDL cholesterol and high-density lipoprotein (HDL) cholesterol or "good" levels when compared with non-Hispanic white and Mexican-American children and adolescents.

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

- 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
  - For non-Hispanic whites, 162 mg/dL for boys and 166 mg/dL for girls.
  - For non-Hispanic blacks, 168 mg/dL for boys and 171 mg/dL for girls.
  - For Mexican Americans, 163 mg/dL for boys and 165 for girls.

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

- About 10 percent of adolescents ages 12-19 have total cholesterol levels exceeding 200 mg/dL. (NHANES III [1988-94], CDC/NCHS)

- For children and adolescents ages 12-19, mean LDL cholesterol levels are
  - Among non-Hispanic whites, 91 mg/dL for boys and 100 mg/dL for girls.
  - Among non-Hispanic blacks, 99 mg/dL for boys and 102 mg/dL for girls.
  - Among Mexican Americans, 93 mg/dL for boys and 92 mg/dL for girls.

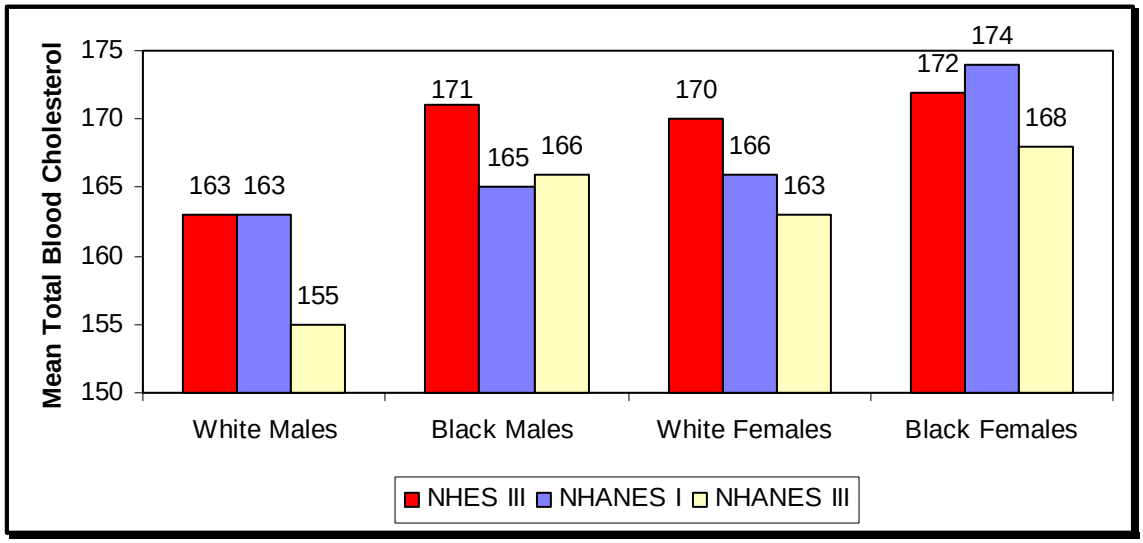
  Higher LDL cholesterol levels combined with other risk factors increase the risks of heart disease, heart attack and stroke. (NHANES III [1988-94], CDC/NCHS)

- For children and adolescents ages 4-19, mean HDL cholesterol levels are
  - Among non-Hispanic whites, 48 mg/dL for boys and 50 mg/dL for girls.
  - Among non-Hispanic blacks, 55 mg/dL for boys and 56 mg/dL for girls.
  - Among Mexican Americans, 51 mg/dL for boys and 52 mg/dL for girls.

  The higher a person's HDL cholesterol level is, the better. (NHANES III [1988-94], CDC/NCHS)

Trends in Mean Total Blood Cholesterol Among Adolescents Ages 12-17 by Sex, Race and Survey

United States: 1966-70, 1971-74, 1988-94



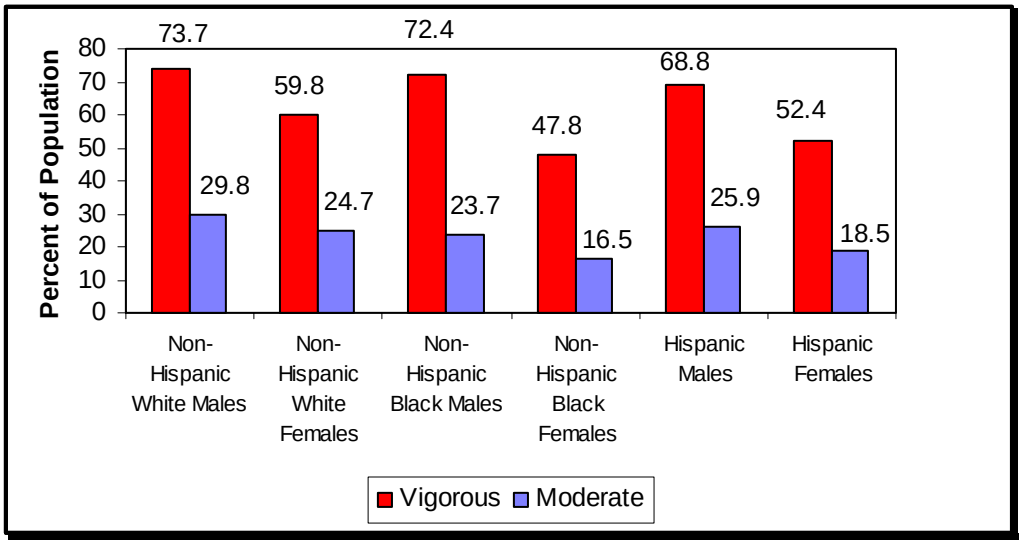
Source: NHES III (1966-70), NHANES I (1971-74), NHANES III (1988-94), CDC/NCHS. Hickman TB, et al. Distributions and trends of serum lipid levels among United States children and adolescents ages 4-19 years: data from the Third National Health and Nutrition Examination Survey. Prev Med. 1998;27:879-890.

Physical Inactivity

- 51.7 percent of high school students were enrolled in physical education classes in 2001, but only 32.2 percent attended classes daily. (*MMWR* Vol. 51, No. SS-4, June 28, 2002, CDC/NCHS)

Percentage of Students in Grades 9-12 Who Participated in Sufficient Vigorous or Moderate Physical Activity During the Past 7 Days by Race/Ethnicity and Sex

United States: 2001



Source: YRBS, United States, 2001, MMWR, Vol. 51, No. SS-4 June 28, 2000, CDC/NCHS. "Vigorous activity" is defined as activity causing sweating and hard breathing for at least 20 minutes on 3 or more of the 7 days. "Moderate activity" is defined as activities such as walking or bicycling lasting for at least 30 minutes on 5 or more of the 7 days.

Overweight and Obesity

- Among American children ages 6-11, using the 95th percentile of body mass index (BMI) values on the CDC 2000 growth chart, the following are overweight:
  - For non-Hispanic whites, 12.0 percent of boys and 11.6 percent of girls.
  - For non-Hispanic blacks, 17.1 percent of boys and 22.2 percent of girls.
  - For Mexican-Americans, 27.3 percent of boys and 19.6 percent of girls.

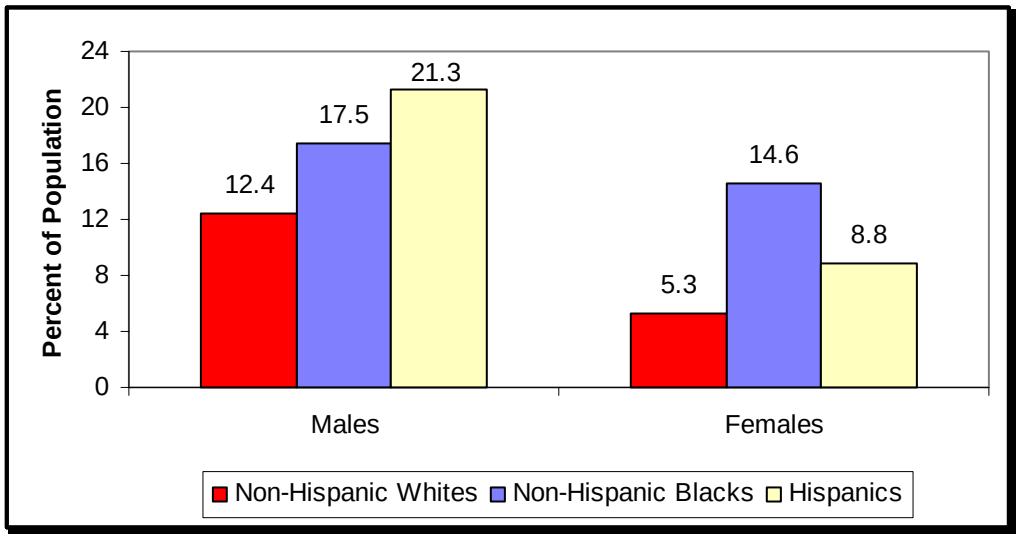
  (NHANES [1999-2000], CDC/NCHS)

- Among American adolescents ages 12-19, using the 95th percentile of BMI values on the CDC 2000 growth chart, the following are overweight:
  - For non-Hispanic whites, 12.8 percent of boys and 12.4 percent of girls.
  - For non-Hispanic blacks, 20.7 percent of boys and 26.6 percent of girls.
  - For Mexican-Americans, 27.5 percent of boys and 19.4 percent of girls.

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

Prevalence of Overweight Among Students in Grades 9-12 by Sex and Race/Ethnicity

United States: 2001



Source: BMI 95th percentile or higher. YRBS, United States, 2001, MMWR, Vol. 51, No. SS-4, June 28, 2002, CDC/NCHS.

Surgery

- An estimated 154,000 cardiovascular procedures were performed on youth age 15 and younger in 2000.

Source Footnotes

CDC/NCHS – Centers for Disease Control and Prevention/National Center for Health Statistics
MMWR – Morbidity and Mortality Weekly Report
NHANES I – National Health and Nutrition Examination Survey I
NHANES III – National Health and Nutrition Examination Survey III
NHES III – National Health Examination Survey III
NHSDA – National Household Survey on Drug Abuse
SAMHSA – Substance Abuse and Mental Health Services Administration
YRBS – Youth Risk Behavior Surveillance