

Statistical Fact Sheet 2013 Update

Youth & Cardiovascular Diseases

Out-of-Hospital Cardiac Arrest

- Survival to hospital discharge among children with EMS-treated, non-traumatic cardiac arrest is 7.8% and of bystander-witnessed ventricular fibrillation is 57.1%.
- Most sudden deaths in athletes were attributable to CVD (56%). Of the cardiovascular deaths that occurred, 29% occurred in blacks, 54% in high school students, and 82% with physical exertion during competition/training, and only 11% occurred in females, although this proportion has increased over time.
- A longitudinal study of students 17 to 24 years of age participating in National Collegiate Athletic Association sports showed that the incidence of nontraumatic out-of-hospital cardiac arrest was 1 per 22,903 athlete participant years. The incidence of cardiac arrest tended to be higher among blacks than whites and among men than women.

Stroke in Children

- The incidence of stroke in children has been stable over the past 10 years,
- The prevalence of perinatal strokes is 29 per 100,000 live births, or one per 3,500 live births.
- Boys have a 1.28-fold higher risk of stroke and a higher case-fatality rate for ischemic stroke than girls.
- Compared with the stroke risk of white children, black children have a 2-fold higher risk, Hispanics have a lower relative risk of 0.76, and Asians have a similar risk.
- From 1979 to 1998 in the United States, childhood mortality resulting from stroke declined by 58% overall, with reductions in all major subtypes.
- Although children with sickle cell disease and congenital heart defects are at high risk for ischemic stroke, the most common cause in a previously healthy child is a cerebral arteriopathy, or disease of arteries in the brain, found in more than half of all cases.

High Blood Pressure (HBP)

- BP, pre-HBP and HBP trends in children and adolescents ages 8–17, were downward from 1963–88 and upward thereafter.
- Pre-HBP and HBP increased 2.3% and 1% respectively, between 1988 and 1999.
- Blood pressure and HBP reversed their downward trends 10 years after the increase in the prevalence of obesity.
- An ethnic and gender gap appeared in 1988 for pre-HBP and 1999 for HBP; non-Hispanic blacks and Mexican-Americans had a greater prevalence of HBP and pre-HBP than non-Hispanic whites, and males greater than females.

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

- An estimated minimum of 32,000 infants are expected to be affected each year in the United States. Of these, an approximate 25%, or 2.4 per 1,000 live births, require invasive treatment in the first year of life.
- The most commonly reported incidence of congenital heart defects in the United States is between 4 and 10 per 1,000, clustering around 8 per 1,000 live births.
- Congenital cardiovascular defects are the most common cause of infant death resulting from birth defects; 27% of infants who die of a birth defect have a heart defect.
- The 2009 death rate attributable to congenital cardiovascular defects was 1.0. Death rates were 1.1 for white males, 1.4 for black males, 0.9 for white females, and 1.2 for black females. Infant mortality rates (<1 year of age) were 31.4 for white infants and 42.2 for black infants.
- Between 1997 and 2004, hospitalization rates increased by 28.5% for cardiac and circulatory congenital anomalies.

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- In 2009, 52,000 U.S. adults and children (25,000 males; 27,000 females) diagnosed with congenital heart defects were discharged from short-stay hospitals.

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

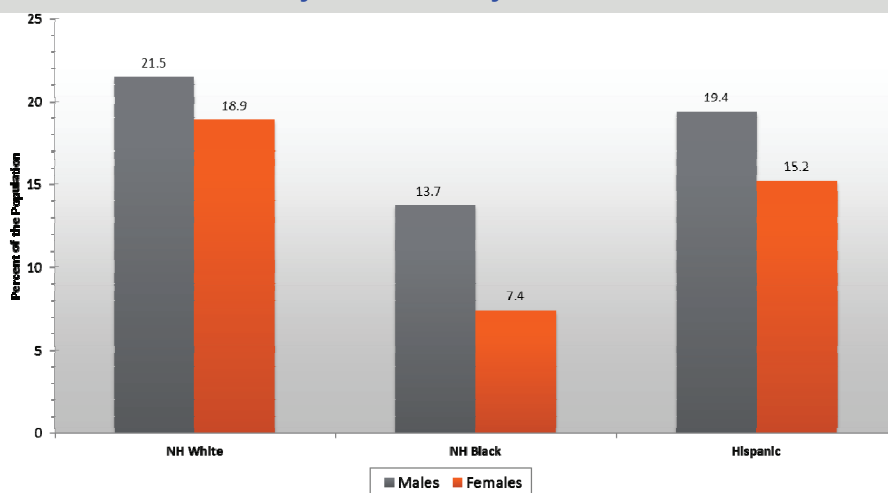
- Since 1996, the NHLBI-sponsored Pediatric Cardiomyopathy Registry has collected data on all children with newly diagnosed cardiomyopathy in New England and the Central Southwest (Texas, Oklahoma, and Arkansas).
 - The overall incidence of cardiomyopathy is 1.13 cases per 100,000 in children <18 years of age.
 - In children <1 year of age, the incidence is 8.34, and in children 1 to 18 years of age, it is 0.70 per 100,000.
 - The annual incidence is lower in white than in black children, higher in boys than in girls, and higher in New England (1.44 per 100,000) than in the Central Southwest (0.98 per 100,000).
- Hypertrophic cardiomyopathy (HCM) is the most common inherited heart defect, occurring in 1 of 500 individuals. In the United States, about 500,000 people have HCM, yet most are unaware of it.

Smoking

In 2011, in grades 9 through 12:

- 18.1% of students reported current cigarette use, 13.1% of students reported current cigar use, and 7.7% of students reported current smokeless tobacco use. Overall, 23.4% of students reported any current tobacco use.
- Male students were more likely than female students to report current cigarette use (19.9% compared with 16.1%). Male students were also more likely than female students to report current cigar use (17.8% compared with 8.0%) and current smokeless tobacco use (12.8% compared with 2.2%).
- Non-Hispanic white students were more likely than Hispanic or non-Hispanic black students to report any current tobacco use, which includes cigarettes, cigars, or smokeless tobacco (26.5% compared with 20.5% for Hispanic students and 15.4% for non-Hispanic black students).
- 49.9% of students who currently smoked cigarettes had tried to quit smoking cigarettes during the previous 12 months. The prevalence of this behavior was higher among female student smokers (53.9%) than among male student smokers (47.0%) and among white females (54.0%) and Hispanic females (55.9%) than among white males (46.3%) and Hispanic males (44.7%).

Prevalence of High School Students Reporting Current Cigarette Use by Race/Ethnicity and Sex



NH indicates non-Hispanic. Source: Youth Risk Behavior Surveillance System, 2011.

High Blood Cholesterol

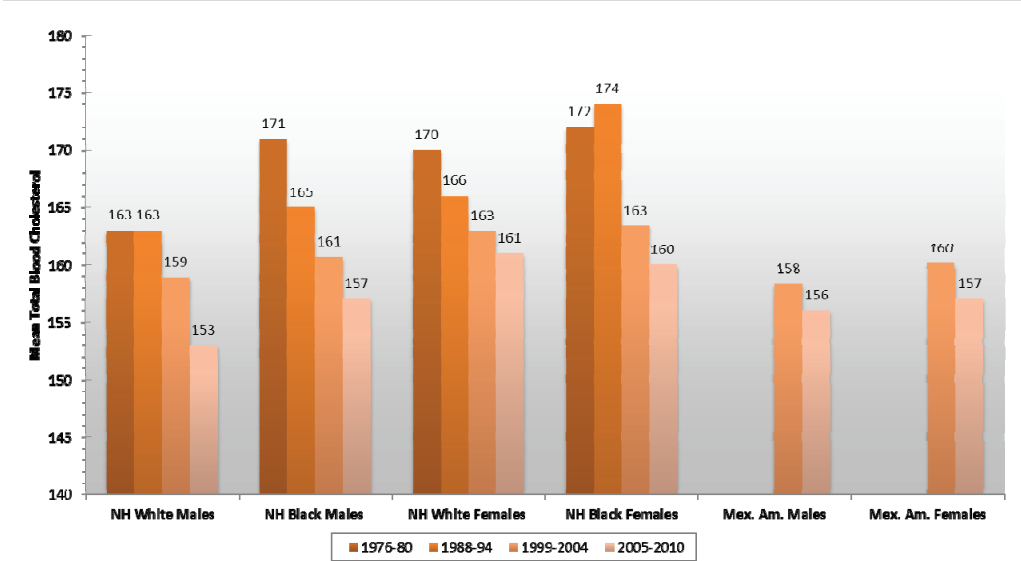
- Among children 4 to 11 years of age, the mean total blood cholesterol level is 161.9 mg/dL. For boys, it is 162.3 mg/dL; for girls, it is 161.5 mg/dL.
- Among adolescents 12 to 19 years of age, the mean total blood cholesterol level is 158.2 mg/dL. For boys, it is 156.1 mg/dL; for girls, it is 160.3 mg/dL.
- Approximately 7.8% of adolescents 12 to 19 years of age have total cholesterol levels ≥ 200 mg/dL.
- Fewer than 1% of adolescents are potentially eligible for pharmacological treatment on the basis of guidelines from the American Academy of Pediatrics.

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Physical Activity

- Nationwide, 13.8% of adolescents were inactive during the previous 7 days, indicated by their response that they did not participate in ≥ 60 minutes of any kind of physical activity that increased their heart rate and made them breathe hard on any 1 of the previous 7 days.
- Girls were more likely than boys to report inactivity (17.7% versus 10.0%).
- The prevalence of inactivity was highest in black (26.7%) and Hispanic (21.3%) girls, followed by white girls (13.7%), black boys (12.3%), Hispanic boys (10.7%), and white boys (8.5%; CDC).

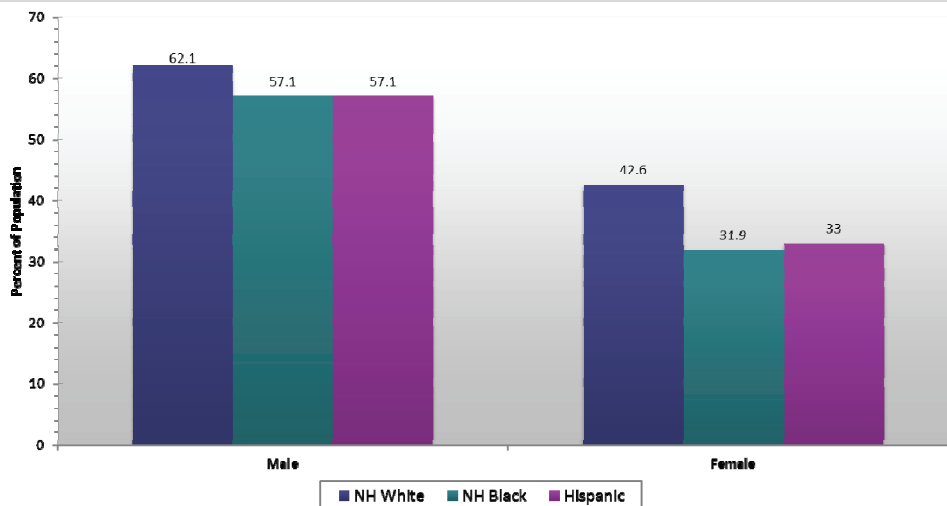
Trends in mean total serum cholesterol among adolescents 12–17 years of age by race, sex



Values are in mg/dL. NH indicates non-Hispanic; Mex. Am., Mexican American. *Data for Mexican Americans not available. Source: National Health and Nutrition Examination Survey: 1976-1980*, 1988-1994*, 1999-2004, and 2005-2010; NCHS.

- Nationwide, 31.1% of adolescents used a computer for activities other than school work (eg, videogames or other computer games) for ≥ 3 hours per day on an average school day.
- A greater proportion of black and Hispanic students used computers or watched television >3 hours per day than white students.

Prevalence of students in grades 9–12 who met currently recommended levels of physical activity during the past 7 days by race/ethnicity and sex



NH indicates non-Hispanic. Source: Youth Risk Behavior Surveillance: 2011.

Overweight and Obesity

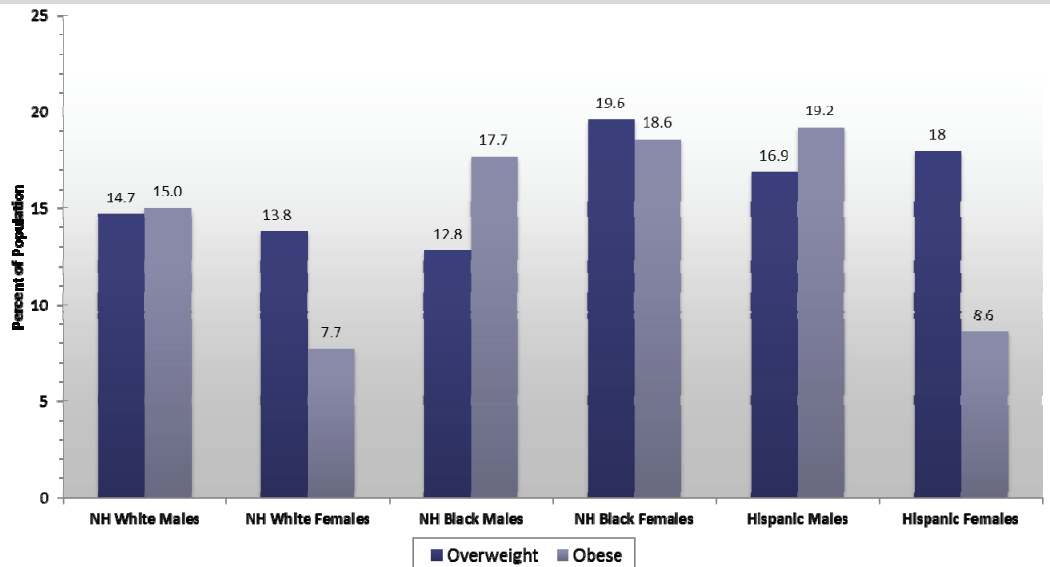
- The obesity epidemic in children continues to grow on the basis of recent data from the Bogalusa Heart Study. Compared with 1973 to 1974, the proportion of children 5 to 17 years of age who were obese was 5 times higher in 2008 to 2009.
- 23.9 million children ages 2 to 19 are overweight or obese; 33.0% of boys and 30.4% of girls.
- Of these children, 12.7 million are obese; 18.6% of boys and 15.0% of girls.

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Diabetes

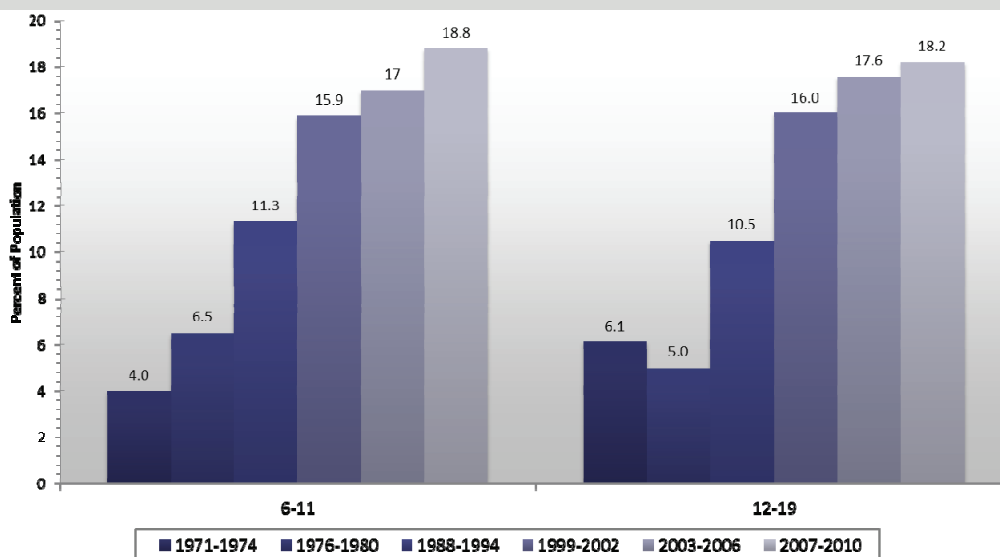
- Approximately 186,000 people <20 years of age have diabetes. Each year, about 15,000 people <20 years of age are diagnosed with type 1 diabetes. Healthcare providers are finding more and more children with type 2 diabetes, a disease usually diagnosed in adults ≥40 years of age. Children who develop type 2 diabetes are typically overweight or obese and have a family history of the disease. Most are American Indian, black, Asian, or Hispanic/Latino.
- Among adolescents 10–19 years of age diagnosed with diabetes, 57.8% of African Americans were diagnosed with type 2 versus type 1 diabetes, compared with 46.1% of Hispanic and 14.9% of Caucasian youth.
- Among youths with type 2 DM, 10.4% are overweight and 79.4% are obese.

Prevalence of overweight and obesity among students in grades 9 through 12 by sex and race/ethnicity



NH indicates non-Hispanic. Source: Data derived from Youth Risk Behavior Surveillance—United States, 2011, Table 101.

Trends in the prevalence of obesity among US children and adolescents by age and survey year



Source: NHANES: 1971-1974, 1976-1980, 1988-1994, 1999-2002, 2003-2006 and 2007-2010; Data derived from Health, United States, 2011 (NCHS).

Healthy Diet

- Whole Grains** - Average consumption was low, ranging from 0.4 to 0.6 servings per day, with <4% of all children in different age and sex subgroups meeting guidelines of ≥3 servings per day.
- Fruit** - Average consumption was low and decreased with age. The proportion meeting guidelines of ≥2 cups per day was also low and decreased with age: about 8% in those 5 to 9 years of age, 7% to 8% in those 10 to 14 years of age, and 4% in those 15 to 19 years of age.
- Vegetables** - Average consumption was low, ranging from 0.9 to 1.1 servings per day, with <2% of children in

different age and sex subgroups meeting guidelines of ≥2.5 cups per day.

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- Fish & Shellfish - Average consumption was low, ranging between 0.5 and 0.7 servings per week in all age and sex groups. Among all ages, only 10% to 13% of children and teenagers consumed ≥ 2 servings per week.
- Nuts, Legumes & Seeds - Average consumption ranged from 1.3 to 1.4 servings per week among 5- to 9-year-olds, 1.4 to 2.1 servings per week among 10- to 14-year-olds, and 0.8 to 1.1 servings per week among 15- to 19-year-olds. Only between 7% and 14% of children in different age and sex subgroups consumed ≥ 4 servings per week.
- Processed Meats - Between 40% and 54% of children consumed ≥ 2 servings per week.
- Sugar-Sweetened Beverages - Average consumption was higher in boys than in girls and was about 8 servings per week in 5- to 9-year-olds, 11 to 13 servings per week in 10- to 14-year-olds, and 14 to 18 servings per week in 15- to 19-year-olds. Only between 17% (boys 15–19 years of age) and 42% (boys and girls 5–9 years of age) of children consumed < 4.5 servings per week.
- Sweets & Bakery Desserts - Average consumption of sweets and bakery desserts was about 8 to 10 servings per week in 5- to 9-year-olds and 10- to 14-year-olds and 6 to 8 servings per week in 15- to 19-year-olds. From 82% (girls 5–9 years of age) to 58% (boys 15–19 years of age) of youths consumed > 2.5 servings per week.

For additional information, charts and tables, see
[Heart Disease & Stroke Statistics - 2013 Update.](#)

Additional charts may be downloaded directly from the online publication at:
<http://circ.ahajournals.org/lookup/doi/10.1161/CIR.0b013e31828124ad>

Or at: www.heart.org/statistics

The American Heart Association requests that this document be cited as follows:

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If you have questions about statistics or any points made in the 2013 Statistical Update, please contact the American Heart Association National Center, Office of Science & Medicine at statistics@heart.org.

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