Child Health USA 2012

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PREFACE AND READER'S GUIDE

The Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB) is pleased to present *Child Health USA 2012*, the 22nd annual report on the health status and service needs of America's children. MCHB envisions a Nation in which the right to grow to one's full potential is universally assured through attention to the comprehensive physical, psychological, and social needs of the maternal and child population. To assess the progress toward achieving this vision, MCHB has compiled this book of secondary data for more than 50 health status and health care indicators. It provides both graphical and textual summaries of relevant data, and addresses long-term trends where applicable and feasible.

All of the data discussed within the text of *Child Health USA* are from the same sources as the information in the corresponding graphs, unless otherwise noted. Data are presented for the target population of the Title V Maternal and Child Health Block Grant: infants, children, adolescents, children with special health care needs, and women of childbearing age. *Child Health USA 2012* addresses health status and health services utilization within this population, and offers insight into the Nation's progress toward the goals set out in the MCHB's strategic plan—to assure quality of care, eliminate barriers and health disparities, promote an environment that supports maternal and child health, and improve the health infrastructure and system of care for women, infants, children, and families.

Child Health USA is designed to provide the most current data available for public health professionals and other individuals in the public and private sectors. The book's succinct format is intended to facilitate the use of the information as a snapshot of children's health in the United States.

Population Characteristics is the first section and presents statistics on factors that influence the well-being of children, including poverty, education, and child care. The second section, entitled Health Status, contains vital statistics and health behavior data for the maternal and child population. Health Services Financing and Utilization, the third section, includes data regarding health care financing and utilization of selected health services. The final sections, State Data and Urban/Rural Data, contain information on selected indicators at those levels.

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INTRODUCTION

The health of the child population is reflective of the overall health of a Nation, and has many implications for the Nation's future as these children grow into adults. Physical, mental, and emotional health affect virtually every facet of life, such as learning, participation in leisure activities, and employment. Health habits established in childhood often continue throughout the lifespan, and many health problems in childhood, such as obesity and poor oral health, influence health into adulthood. Effective policies and programs are important to the establishment of healthy habits and the mitigation of risk factors for disease. However, the health and health care needs of children change over time, and current data on these issues is critically important as policy makers and program planners seek to maximize the health of children, now and into the future.

In 2010, nearly one-quarter of the U.S. population was under 18 years of age. The racial and ethnic composition of the child population is shifting, with a growing population of Hispanics and a decline in the representation of non-Hispanic Whites. In addition to race and ethnicity, the demographic composition of a population can also be characterized by factors such as nativity, poverty, and geographic location. In 2009, 22.8 percent of children in the United States had at least one foreign-born parent. Of all children, 19.6 percent were U.S.-born with a foreign-born parent or parents, and 3.2 percent were themselves foreign-born. In the same year, over 16 million children under 18 years of age lived in households with incomes below 100 percent of the U.S. Census Bureau's poverty threshold ($22,314 for a family of four in 2010), representing 22.0 percent of all children in the United States. Differences in health risks have also been observed for children by geographic location. In 2007, about 82 percent of children lived in urban areas while 18 percent lived in either large or small/isolated rural areas. Children in rural areas—particularly those in small or isolated rural communities—were more likely to be overweight or obese than children living in urban areas.

Using the latest data from the 2009-10 National Survey of Children with Special Health Care Needs, *Child Health USA* also includes three pages on the prevalence, health status, and health care financing characteristics of children with special health care needs. Children are considered to have a special health care need if, in addition to a chronic medical, behavioral, or developmental condition that has lasted or is expected to last 12 months or longer, they experience either service-related or functional consequences, including the need for or use of prescription medications and/or specialized therapies. In 2009-10, 15.1 percent of U.S. children aged 18 and younger had a special health care need, representing 11.2 million children.

Good health begins before birth. Timely prenatal care is an important preventive strategy that can help protect the health of both mother and child. In 2010, 73.1 percent of women began prenatal care during the first trimester (according to data from areas using the "revised" birth certificate). A small proportion of women (6.2 percent) did not receive prenatal care until the third trimester, or did not receive any at all.

Following birth, a variety of preventive or protective factors can affect a child's health. Vaccination is a preventive health measure that begins immediately after birth and protects into adulthood. Currently, there are 12 different vaccines recommended by the Centers for Disease Control and Prevention from birth through age 18. In 2010, 72.7 percent of children 19-35 months of age received each of six vaccines in a modified series of recommended vaccines.

Breastfeeding is also an important protective factor, and rates have increased steadily since the beginning of the last decade. Among those born in 2007, 75.0 percent of infants were breastfed or fed breastmilk at least once. Although recommended by the American Academy of Pediatrics, only 22.4 percent of children were breastfed exclusively (without supplemental food or liquids) for the first 6 months of life. Exclusive breastfeeding through the first 6 months of life was more

common among older mothers and mothers with more than a high-school-level education.

Family characteristics can also play a role in the health and well-being of children. In 2010, 70.8 percent of women with children under 18 years of age were in the labor force (either employed or looking for work). Mothers with children under 6 years of age were less likely to be in the labor force (63.9 percent) compared to those whose youngest child was between the ages of 6 and 17 years (76.5 percent). In 2010, nearly 50 percent of pre-school aged children were cared for by their mother, father, grandparent or some other relative while their mother worked. Primary child care arrangements varied by poverty status, with 15.4 percent of children living in households with incomes below the Federal poverty level being cared for in a center-based setting (e.g., day care) compared to 25.6 percent of children with household incomes above 100 percent of poverty.

Physical activity is another factor that can affect health throughout the lifespan. Results from the Youth Risk Behavior Surveillance System show that 28.7 percent of high school students met currently recommended levels of physical activity in 2011 (1 hour or more of physical activity every day, most of which should be moderate- to vigorous-intensity aerobic activity). Participation in physical activity can be adversely impacted by in media use, or "screen time." The American Academy of Pediatrics recommends that parents limit children's daily use of media to 1-2 hours per day. Yet, in 2011, 32.4 percent of high school students reported watching 3 or more hours of television per day on an average school day.

Child Health USA also presents information on risk factors for adverse health outcomes. In 2010, 11.99 percent of infants were born preterm (or before 37 completed weeks of gestation). Overall, 8.49 percent of babies were born at 34 to 36 weeks' gestation, 1.53 percent were born at 32-33 weeks, and 1.96 percent were "very preterm" (less than 32 weeks). Babies born preterm are at increased risk of immediate and long-term complications, as well as mortality.

Violence and neglect are also risk factors for poor health, and in 2010, investigations determined that an estimated 695,000 children were victims of abuse or neglect, equaling a victimization rate of 9.2 per 1,000 children in the population. Victimization rates were highest among young children. Among older children, peer violence is also of concern. In 2011, 12.0 percent of high school students reported that they had been in a physical fight on school property in the prior 12 months and 9.4 percent reported that they had experienced dating violence — having been hit, slapped or physically hurt on purpose—at the hands of a boyfriend or girlfriend.

Obesity is another serious health risk for children—obese children are more likely to have risk factors for cardiovascular disease, such as high blood pressure, high cholesterol, and Type 2 diabetes. Obese children are also at increased risk of obesity in adulthood, which is associated with a host of serious health consequences. In 2009-2010, 14.7 percent of children aged 2-19 years were overweight and 16.9 percent were obese.

The health status and health services utilization indicators reported in *Child Health USA* can help policymakers and public health officials better understand current trends in pediatric health and wellness and determine what programs might be needed to further improve the public's health. These indicators can also help identify positive health outcomes which may allow public health professionals to draw upon the experiences of programs that have achieved success. The health of our children and adolescents relies on effective public health efforts that include providing access to knowledge, skills, and tools; providing drug-free alternative activities; identifying risk factors and linking people to appropriate services; building community supports; and supporting approaches that promote policy change, as needed. Such preventive efforts and health promotion activities are vital to the continued improvement of the health and well-being of America's children and families.

POPULATION CHARACTERISTICS

The increasing diversity of the United States population is reflected in the sociodemographic characteristics of children and their families. The percentage of children who are Hispanic has more than doubled since 1980, while the percentage who are non-Hispanic White has declined. The percentage of children who are Black has remained relatively stable. This reflects the changes in the racial and ethnic makeup of the population as a whole.

At the national, State, and local levels, policymakers use population information to address health-related issues that affect mothers, children, and families. By carefully analyzing and comparing available data, public health professionals can often identify high-risk populations that could benefit from specific interventions.

This section presents data on several population characteristics that influence maternal and child health program development and evaluation. Included are data on the age and racial and ethnic distribution of the U.S. population, as well as data on the poverty status of children and their families, child care arrangements, and education.

This section also presents the latest estimate of the proportion of U.S. children with special health care needs. Children are considered to have a special health care need if, in addition to a chronic medical, behavioral, or developmental condition that has lasted or is expected to last 12 months or longer, they experience either service-related or functional consequences, including prescription medications and/or specialized therapies.

POPULATION OF CHILDREN

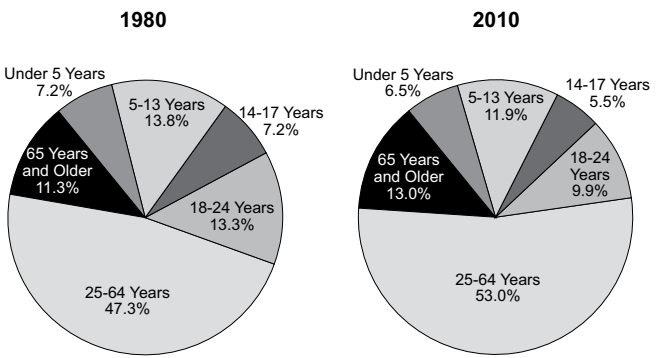
In 2010, there were more than 74 million children under 18 years of age in the United States, representing nearly one-quarter of the population. Young adults aged 18–24 years made up another 9.9 percent of the population, while adults aged 25–64 years composed 53.0 percent of the population, and adults aged 65 years and older composed 13.0 percent.

The age distribution of the population has shifted significantly in the past several decades. The percentage of the population that is under 18 fell from 28.2 percent in 1980 to 24.0 percent in 2010. The representation of young adults (aged 18–24 years) has also fallen, from 13.3 percent to 9.9 percent. During this time period, the percentage of the population that is aged 25–64 years has increased from 47.3 percent to 53.0 percent, and the percentage that is over 65 years has increased from 11.3 percent to 13.0 percent. The median age in the United States has increased from 30.0 years in 1980 to 37.2 years in 2010 (data not shown).

The shifting racial/ethnic makeup of the child population (under 18 years) reflects the increasing diversity of the population as a whole. Hispanic children represented fewer than 9 percent of children in 1980, compared to more than 23 percent in 2010, while the percentage of children who are non-Hispanic Black has remained relatively steady over the same period, around 15 percent. However, the percentage of children who are non-Hispanic White has fallen significantly, from 74.3 percent in 1980 to 58.3 percent in 2010. After 2000, changes in the ways that racial and ethnic data were collected limit comparison over time for some groups, including Asians and individuals of more than one race.

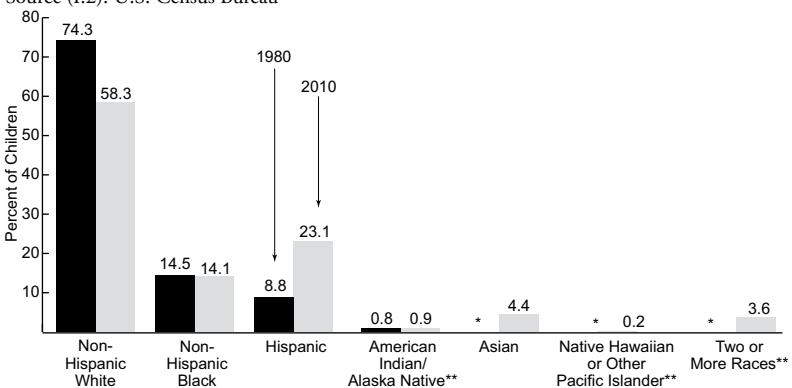
U.S. Population, by Age Group, 1980 and 2010

Source (I.1): U.S. Census Bureau.



U.S. Population of Children Under Age 18, by Race/Ethnicity, 1980 and 2010

Source (I.2): U.S. Census Bureau



*1980 data not available for this population. **May include Hispanics.

CHILDREN IN POVERTY

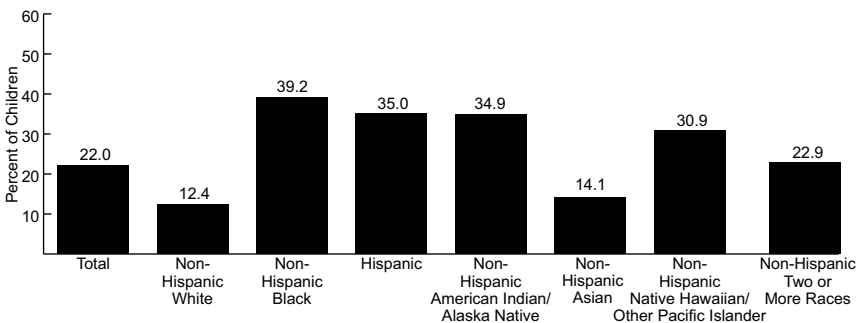
In 2010, more than 16 million children under 18 years of age lived in households with incomes below 100 percent of the U.S. Census Bureau's poverty threshold ($22,314 for a family of four in 2010). This represents 22.0 percent of all children in the United States and reflects an increase since 2009, when 20.7 percent of U.S. children lived in poverty.[1] Poverty affects many aspects of a child's life, including living conditions, nutrition, and access to health care. A number of factors affect poverty status, and significant racial/ethnic disparities exist. In 2010, nearly 40 percent of non-Hispanic Black children lived in households with incomes below 100 percent of the poverty threshold, as did approximately 35 percent of non-Hispanic American Indian/Alaska Native and Hispanic children, compared to 12.4 percent of non-Hispanic White children.

Single-parent families are particularly vulnerable to poverty. In 2010, 46.9 percent of children living in a female-headed household experienced poverty, as did 28.1 percent of children living in a male-headed household. Only 11.6 percent of children living in married-couple families lived in poverty (data not shown). The proportion of children living in poverty varies by age and family type. In 2010, nearly 60 percent of children under 5 years of age living in female-headed households lived in poverty (with incomes below 100 percent of the poverty threshold), while the same was true of 41.4 percent of children aged 6–17 years.

A number of Federal programs work to protect the health and well-being of children living in low-income families. One of these is the National School Lunch Program, administered by the U.S. Department of Agriculture's Food and Nutrition Service. The program provides nutritionally-balanced low-cost or free lunches to children based on household poverty level. In 2010, the program served free lunch to 17.5 million children and reduced-price lunch to another 3.0 million children. This represents 65.3 percent of all lunches served in participating schools.[2]

Children Under Age 18 Living in Households with Incomes Below 100 Percent of the Poverty Threshold,* by Race/Ethnicity, 2010

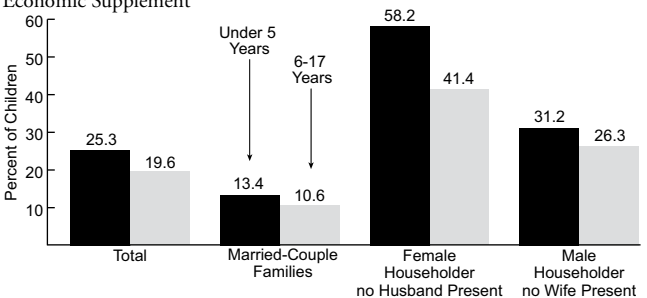
Source (I.3): U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement



*The U.S. Census Bureau uses a set of money income thresholds to determine who is in poverty; the poverty threshold for a family of four was $22,314 in 2010.

Children Under Age 18 Living in Families* with Incomes Below 100 Percent of the Poverty Threshold, by Age and Family Type, 2010**

Source (I.3): U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement



*Includes only children who are related to the head of household by birth, marriage, or adoption.
**The U.S. Census Bureau poverty threshold for a family of four was $22,314 in 2010.

CHILDREN OF FOREIGN-BORN PARENTS

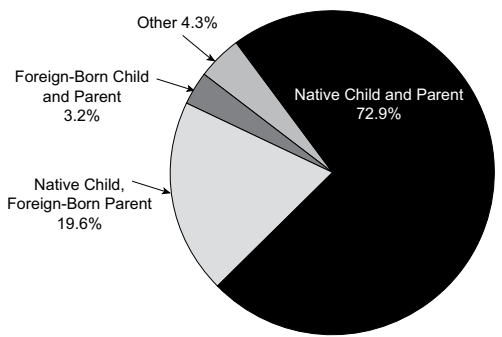
The foreign-born population in the United States has increased substantially since the 1970s, largely due to immigration from Asia and Latin America. In 2010, 22.8 percent of children in the United States had at least one foreign-born parent. Of all children, 19.6 percent were U.S.-born with a foreign-born parent or parents, and 3.2 percent were themselves foreign-born, with or without a foreign-born parent. Most children (72.9 percent) were native-born with native-born parents.

Children's poverty status varies with their nativity. In 2010, foreign-born children with foreign-born parents were most likely to live in poverty, with 32.8 percent living in households with incomes below 100 percent of the U.S. Census Bureau's poverty threshold ($22,314 for a family of four in 2010). Another 30.1 percent of these children lived in households with family incomes of 100–199 percent of the poverty threshold. Native-born children with native parents were the least likely to experience poverty, with 18.1 percent living in households with incomes below 100 percent of the poverty threshold, and another 19.4 percent living in households with incomes of 100–199 percent of the poverty threshold.

A number of other sociodemographic factors vary by the nativity of children and their parents. For instance, native-born children with native parents were most likely to have health insurance in 2010 (92.4 percent), while foreign-born children with foreign-born parents were least likely (71.3 percent). Almost 87 percent of native-born children with foreign-born parents had health insurance in 2010 (data not shown).

Children Under Age 18, by Nativity of Child and Parent(s),* 2010

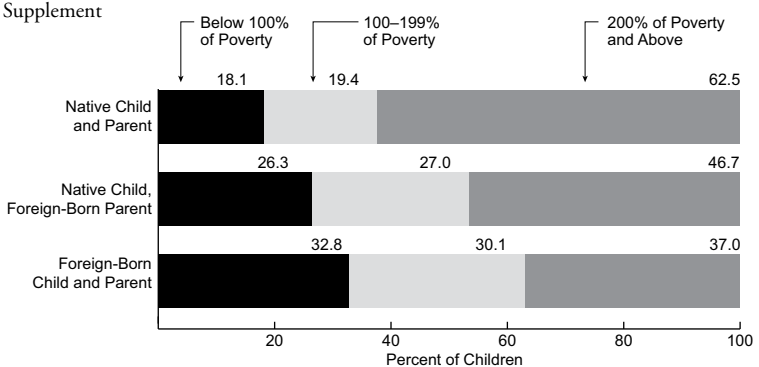
Source (I.4): U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement



**"Native parent" indicates that both of the child's parents were U.S. citizens at birth, "foreign-born parent" indicates that one or both parents were born outside of the United States; children could be living with one or both parents. "Other" includes children with parents whose native status is unknown and foreign-born children with native parents.*

Children Under Age 18, by Nativity of Child and Parent(s)* and Poverty, 2010**

Source (I.4): U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement



**"Native parent" indicates that both of the child's parents were U.S. citizens at birth, "foreign-born parent" indicates that one or both parents were born outside of the United States. **The U.S. Census Bureau poverty threshold for a family of four was $22,314 in 2010.*

RURAL AND URBAN CHILDREN

Urban and rural children differ in their demographic characteristics, which, in combination with geographic factors, can affect their health and access to health care. For instance, children living in rural areas are more vulnerable to death from injuries,[3] are more likely to use tobacco and other substances,[4,5] and are more likely to be obese than their urban counterparts.[6] Rural families may also not have the same access to health care because health services are not always located nearby.[7] Understanding these potential risks can provide program planners and policymakers information that can be used to design and target services.

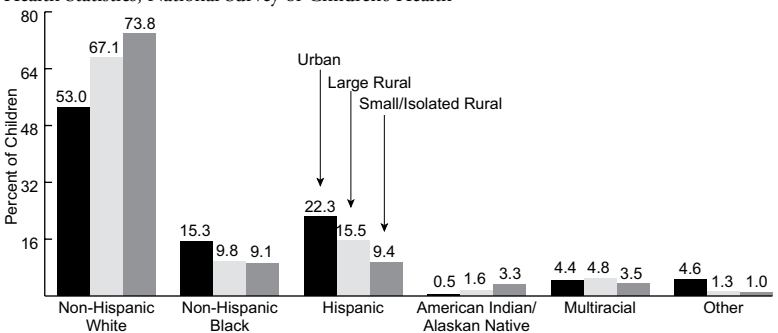
In 2007, 81.7 percent of children lived in urban areas, while about 9 percent lived in either large or small/isolated rural areas, respectively (data not shown). These areas were classified based on zip code, the size of the city or town, and the commuting pattern in the area. Urban areas include metropolitan areas and surrounding towns, large rural areas include towns with populations of 10,000 to 49,999 persons and their surrounding areas, and small/isolated rural areas include towns with populations of 2,500 to 9,999 persons and their surrounding areas.

The demographic distribution of the population of children in small and large rural areas differs from that of urban children in terms of both race/ethnicity and family income. Among urban children, 53.0 percent were White, compared to 67.1 percent of children in large rural areas and 73.8 percent of those in small rural areas. Children living in urban areas were more likely to be Non-Hispanic Black and Hispanic than those living in both small and large rural areas. American Indian/Alaska Native children were most likely to reside in small rural areas, where they represent 3.3 percent of the population.

Children in rural areas were more likely than urban children to be living in low-income families. Nearly one-quarter of children in both small and large rural areas had household incomes below the Federal poverty level (FPL), compared to 17.4 percent of urban children. In contrast, nearly one-third of urban children had household incomes of 400 percent of the FPL or more, compared to 17.3 percent of children in large rural areas and 14.1 percent of those in small rural areas.

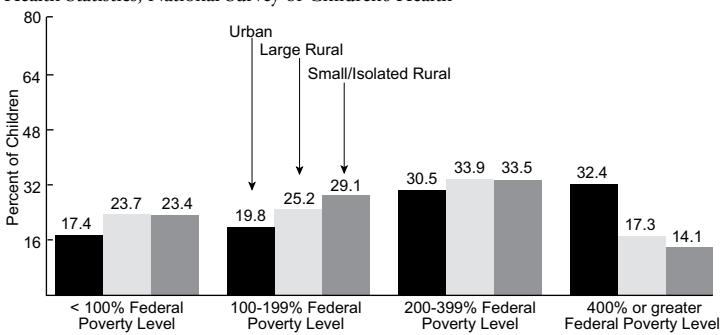
Race/Ethnicity Among Children, by Location, 2007

Source (I.5): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children's Health



Poverty Among Children, by Location, 2007

Source (I.5): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children's Health



**Federal poverty level was $20,650 for a family of four in 2007*

EDUCATION

In 2009, nearly 90 percent of 18- to 24-year-olds not enrolled in high school had received a high school diploma or alternative credential in the United States. Status completion rates[8] were highest among non-Hispanic Asians and Other Pacific Islanders (95.9 percent) and non-Hispanic Whites (93.8 percent). These rates were lower in other racial/ethnic groups, including non-Hispanic persons of two or more races (89.2 percent), non-Hispanic Blacks (87.1 percent), non-Hispanic American Indians/Alaska Natives (82.4 percent), and Hispanics (76.8 percent).

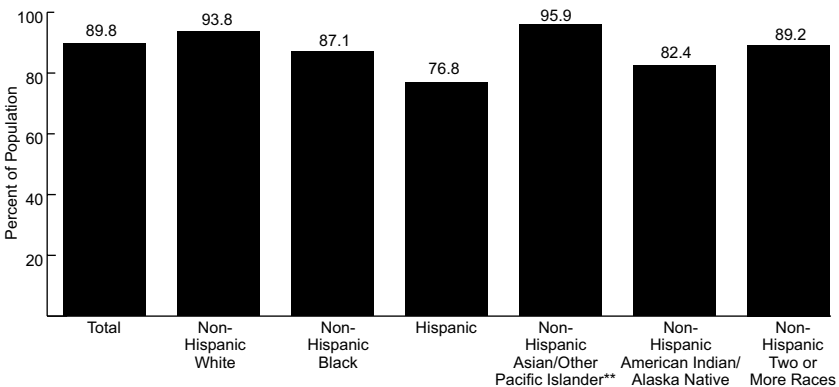
Differences are also observed between males and females within racial/ethnic groups. Overall, females had a higher status completion rate in 2009 (91.2 percent) than their male counterparts (88.3 percent). Among non-Hispanic Whites and Blacks, females aged 18-24 who were not enrolled in high school had higher status completion rates than males (data not shown).

The National Assessment Governing Board sets three achievement levels – Basic, Proficient, and Advanced – for children based on what students should know and be able to do at each grade assessed.[9] In 2011, 82.5 percent of 4th graders and 73.4 percent of 8th graders, respectively, were at or above basic proficiency in mathematics, while 67.5 percent of 4th graders and 76.0 percent of either grade students had achieved at or above basic proficiency in reading.

Among eighth-graders, there was no significant difference in the proportion of students achieving at least basic proficiency in mathematics by sex; however, a slightly larger proportion of males than females were ranked as proficient or advanced in this subject. Larger differences were evident in reading: a significantly higher proportion of females were ranked as proficient and advanced than males (data not shown).

School Status Completion* Rates Among Persons Aged 18–24 Years Not Currently Enrolled in High School, by Race/Ethnicity, 2009

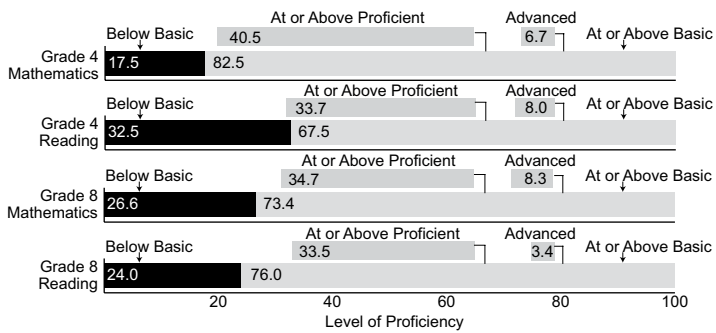
Source (I.6): US Department of Commerce, Census Bureau, Current Population Survey



*Status completion rates include individuals who are not enrolled in high school and who have earned a high school diploma or an alternative credential, including a GED certificate.
**Separate estimates were not available for non-Hispanic Asians and Pacific Islanders.

Proficiency* in Mathematics and Reading among Students, by Grade Level, 2011

Source (I.7): U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress



*Performance standards are set by the National Assessment Governing Board. Basic, Proficient, and Advanced Levels each measure what students should know and be able to do at each grade assessed. Basic denotes partial mastery of prerequisite knowledge and skills, Proficient reflects solid academic performance, and Advanced denotes superior performance. Examples of knowledge and skills demonstrated by students at each achievement level are available in The Nation's Report Cards in Mathematics and Reading are available at: http://nces.ed.gov/nationsreportcard/subjectareas.asp.

MATERNAL AGE

In 2010, the birth rate among women aged 15–44 years was 64.1 births per 1,000—a decrease of 3 percent from 2009 and the lowest rate reported in over a decade.[10] Although births and birth rates declined for women of all race and ethnic groups, Hispanic women continued to have the highest birth rate, followed by non-Hispanic Black women (80.2 and 66.6 births per 1,000 women aged 15–44 years, respectively). American Indian/Alaska Native women had the lowest birth rate (48.6 per 1,000 women aged 15–44 years). Between 2009 and 2010, the birth rate also declined in every age group except for 40–44 years, which increased 2 percent to the highest level since 1967 (10.2 births per 1,000 women).[10] The birth rates among teenagers aged 15-19 years and young women aged 20–24 years reached historic lows in 2010 (34.2 and 90.0 births per 1,000 women, respectively).

Overall, birth rates were highest among women aged 25–29 years (108.3 births per 1,000 women), followed by those aged 30–34 years (96.5 births per 1,000 women). However, age patterns vary by race/ethnicity. For Hispanic, non-Hispanic Black, and American Indian/Alaska Native women, birth rates were highest among 20- to 24-year-olds (126.1, 119.4, 91.0 births per 1,000 women, respectively), whereas birth rates were highest among 25- to 29-year-olds for non-Hispanic Whites (105.8 per 1,000) and among 30- to 34-year-olds for Asian/Pacific Islanders (113.6 per 1,000).

Demonstrating the trend toward delayed childbearing, average age at first birth rose 3.8 years between 1970 and 2010 to 25.4 years (data not shown).[10,11] The proportion of first births to women aged 35 and older increased from just 1 percent in 1970 to 8.2 percent in 2010. Meanwhile, the proportion of first births to teenagers (under 20 years) dropped in half between 1970 and 2010, from 35.6 to 18.9 percent.

Live Births per 1,000 Women by Age and Race/Ethnicity,* 2010

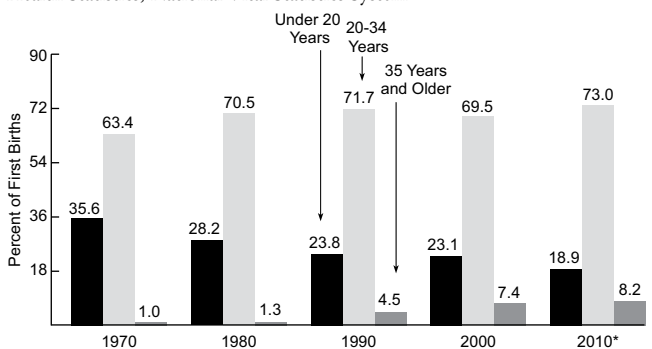
Source (I.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

Age Group	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	American Indian/ Alaska Native*	Asian/Pacific Islander*
Total	64.1	58.7	66.6	80.2	48.6	59.2
15-19 Years	34.2	23.5	51.5	55.7	38.7	10.9
20-24 Years	90.0	74.9	119.4	126.1	91.0	42.6
25-29 Years	108.3	105.8	102.5	125.3	74.4	91.5
30-34 Years	96.5	99.9	73.6	96.6	48.4	113.6
35-39 Years	45.9	44.1	36.4	51.7	22.3	62.8
40-44 Years	10.2	9.2	9.2	13.0	5.2	15.1

*Includes Hispanics.

Percent of First Births* by Mother's Age, 1970-2010

Source (I.8, I.9): Centers for Disease Control and Prevention, National Center Health Statistics, National Vital Statistics System



*Percentages may not add up to 100 due to rounding.

WORKING MOTHERS AND CHILD CARE

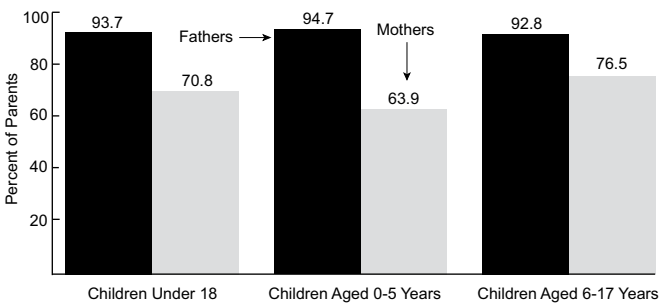
In 2010, 70.8 percent of women with children under 18 years of age were in the labor force (either employed or looking for work), and 64.4 percent were employed. Among men with children, 93.7 percent were in the labor force and 86.6 percent were employed. Employment among women varied by a number of factors. Of mothers with children from birth through age 5, 63.9 percent were in the labor force and 57.0 percent were employed. Of women whose youngest child was aged 6–17 years, 76.5 percent were in the labor force and 70.5 percent were employed. Employed mothers with children birth to age five were more likely to be employed part-time than mothers with older children (28.9 versus 24.6 percent, data not shown).

Although the proportion of mothers with children under the age of 18 who were employed was similar regardless of marital status (64.6 percent of married women versus 64.0 percent of those who were never married, separated, widowed, or divorced), the unemployment rate among those who were married with a spouse present was lower (6.3 percent) than that among mothers of other marital statuses (14.6 percent). Unemployment rates, which count individuals who are not employed but are available for and actively looking for work, increased between 2009 and 2010 for mothers of all marital statuses (data not shown).

In 2010, 48.2 percent of pre-school aged children were cared for by their mother, father, grandparent or some other relative while their mother worked. About one-quarter (23.7 percent) were cared for in a center-based setting, e.g., day care, and 13.5 percent were care for by a non-relative in a home-based setting, such as a family day care provider or nanny. Primary child care arrangements varied by poverty status. Among children with household incomes below the Federal poverty level, 15.4 percent were cared for in a center, compared to 25.6 percent of children with household incomes above poverty (data not shown).

Parents' Labor Force* Participation Rate, by Age of Youngest Child, 2010**

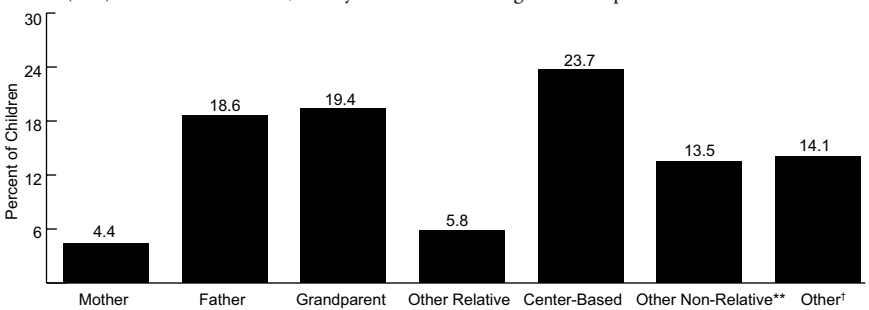
Source (I.10): US Department of Labor, Bureau of Labor Statistics



*Includes people who are employed and those who are actively seeking work.
**Children include sons, daughters, step-children, and adopted children.

Primary Childcare Arrangements* for Children Aged 0-4 Years with Employed Mothers, 2010

Source (I.11): U.S. Census Bureau, Survey of Income and Program Participation



*The arrangement used for the greatest number of hours per week while the mother worked. **Includes family day care providers, in-home babysitters, and other nonrelatives providing care in either the child's or provider's home.
†Includes children in kindergarten or grade school, self-care, and with no regular arrangement; does not include school-based activities.

CHILDREN WITH SPECIAL HEALTH CARE NEEDS

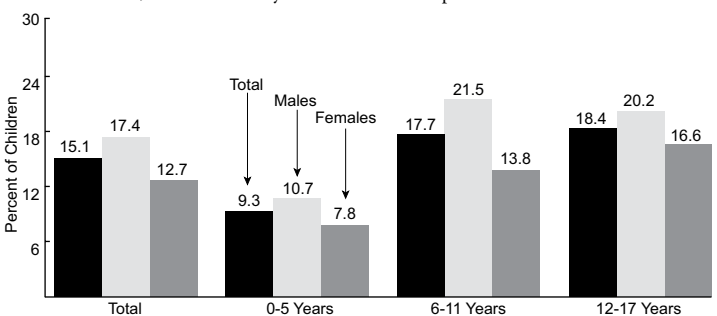
Children are considered to have a special health care need if, in addition to a chronic medical, behavioral, or developmental condition that has lasted or is expected to last 12 months or longer, they experience either service-related or functional consequences, including the need for prescription medications and/or specialized therapies.[13] In 2009-10, 15.1 percent of U.S. children under the age of 18 had a special health care need, representing 11.2 million children. Among households with children under the age of 18 years, 18.3 percent have one child with special health care needs and 4.7 percent have two or more children with such needs, representing 8.7 million households with at least one child who has special health care needs (data not shown).

The prevalence of special health care needs in 2009-10 varied by sociodemographic characteristics. Significantly more males than females were reported to have such conditions, 17.4 percent compared to 12.7 percent, as were school-aged children compared to children aged 0-5 years. Approximately 18 percent of children ages 6-11 and 12-17 years were reported to have a special health care need, compared to 9.3 percent of those aged 0-5 years.

The proportion of children with reported special health care needs also varied by race and ethnicity; non-Hispanic children of multiple races had the highest rate (20.0 percent) while non-Hispanic Asian and Native Hawaiian or Other Pacific Islander children had the lowest (7.7 and 8.7 percent, respectively). Non-Hispanic Black children had a slightly higher rate (17.5 percent) than non-Hispanic Whites (16.3) while Hispanics had a slightly lower rate (11.2 percent). No significant difference was observed between non-Hispanic Whites and American Indian/Alaska Native children.

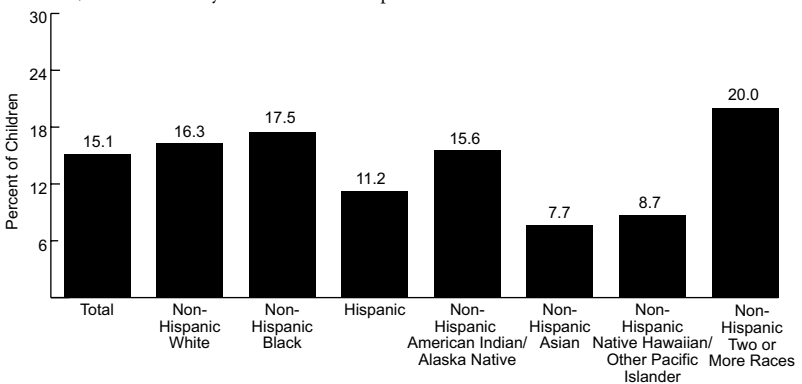
Children Under Age 18 with Special Health Care Needs, by Sex and Age, 2009-10

Source (I.12): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children with Special Health Care Needs



Children Under Age 18 with Special Health Care Needs, by Race/Ethnicity, 2009-10

Source (I.12): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children with Special Health Care Needs

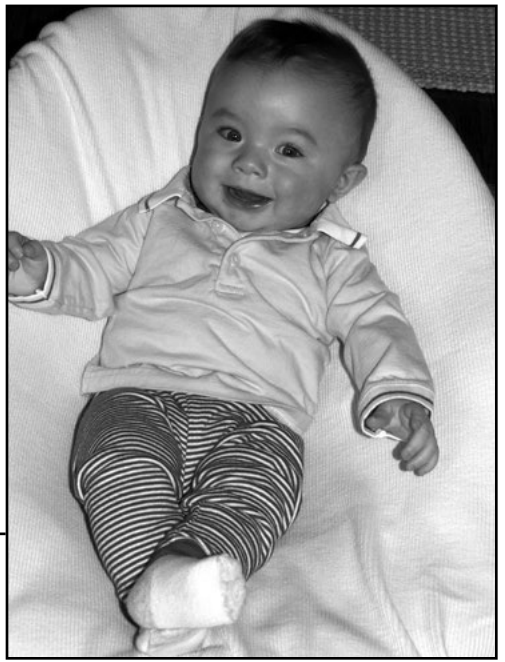


HEALTH STATUS

Monitoring the health status of infants, children, and adolescents allows health professionals, program planners, and policymakers to assess the impact of past and current health intervention and prevention programs and identify areas of need within the child population. Although indicators of child health and well-being are often assessed on an annual basis, some surveillance systems collect data at regular intervals, such as every 2, 4, or 5 years. Trends can be identified by examining and comparing data from one data collection period to the next whenever multiple years of data are available.

In the following section, mortality, disease, injury, and health behavior indicators are presented by age group: Infants, Children, and Adolescents. The health status indicators in this section are based on vital statistics and national surveys and surveillance systems. Population-based samples are designed to yield information that is representative of the maternal and child populations that are affected by, or in need of, specific health services or interventions.

HEALTH STATUS - INFANTS



LOW BIRTH WEIGHT AND VERY LOW BIRTH WEIGHT

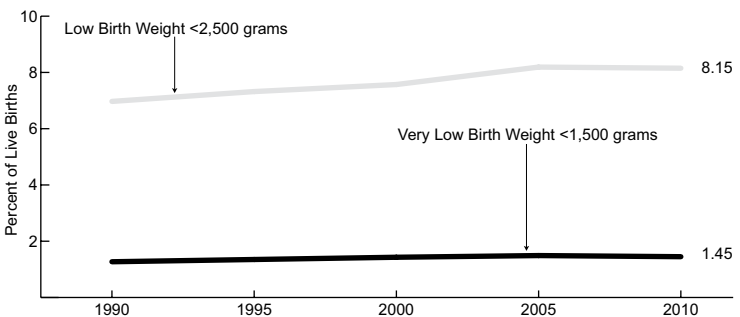
Infants born at low birth weight (less than 2,500 grams or 5.5 pounds) and especially very low birth weight (less than 1,500 grams or 3.25 pounds) are more likely to experience physical and developmental health problems and to die in the first year of life than are infants of normal birth weight. The developmental problems of low birth weight infants exact a significant emotional and financial toll, often requiring increased levels of medical, educational, and parental care. The majority of very low birth weight infants are born prematurely, whereas those born at moderately low birth weight include a mix of prematurity as well as fetal growth restriction that may be related to factors such as maternal hypertension, tobacco smoke exposure, or inadequate weight gain during pregnancy.[14]

In 2010, 8.15 percent of infants were born at low birth weight, including 1.45 percent who were born at very low birth weight. After steady increases, rates of low and very low birth weight peaked in 2006 at 8.26 and 1.49 percent, respectively, and have declined only slightly since then. Reasons for the increase in low birth weight may mirror those behind increases in prematurity, including increases in obstetric interventions, maternal age, and fertility treatments.[15] A rise in multiple births, which increase with maternal age and fertility treatments and are at high risk of low birth weight, has strongly influenced the rise in low birth weight; however, rates of low birth weight have also increased for singleton births.[15]

Infants born to non-Hispanic Black women have the highest rates of low and very low birth weight (13.53 and 2.98 percent, respectively), levels that are about two or more times greater than for infants born to women of other racial and ethnic groups. For example, low and very low birth weight rates among non-Hispanic Whites were 7.14 and 1.16 percent, respectively. Given their heightened risk of death, the large disparity in very low birth weight is a major contributor to the mortality gap between non-Hispanic Black and White infants.[16]

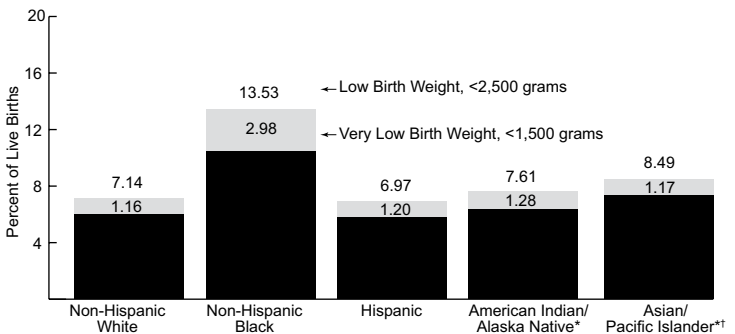
Low and Very Low Birth Weight, 1990—2010

Source (II.1, II.2): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Low and Very Low Birth Weight, by Maternal Race/Ethnicity,* 2010

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Includes Hispanics. †Separate data for Asians and Native Hawaiians and Other Pacific Islanders not available.

PRETERM BIRTH

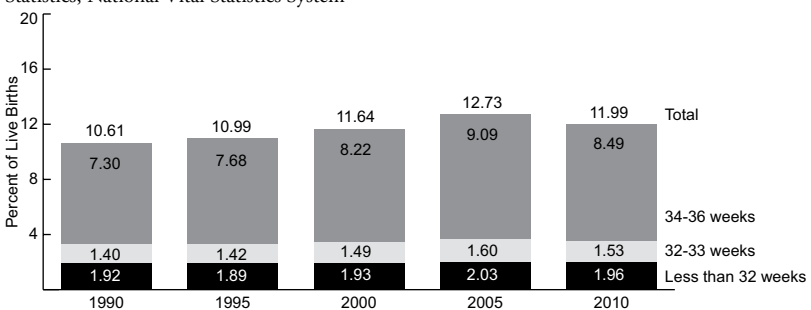
Babies born preterm, before 37 completed weeks of gestation, are at increased risk of immediate and long-term complications, as well as death. Complications that can occur during the newborn period include respiratory distress, jaundice, anemia, and infection, while long-term complications can include learning and behavioral problems, cerebral palsy, lung problems, and vision and hearing loss. As a result of these risks, preterm birth is a leading cause of infant death and childhood disability. Although the risk of complications is greatest among those babies who are born the earliest, even those babies born "late preterm" (34 to 36 weeks of gestation) are more likely than full-term babies to experience morbidity and mortality.[17]

In 2010, 11.99 percent of infants were born preterm. Overall, 8.49 percent of babies were born at 34 to 36 weeks' gestation, 1.53 percent were born at 32-33 weeks, and 1.96 percent were "very preterm" (less than 32 weeks). Between 1990 and 2006, the preterm birth rate increased more than 20 percent, from 10.61 to 12.80 percent, but has declined in the 4 years since 2006 (data not shown). The greatest trends in preterm birth have been observed among the largest category of late preterm infants born at 34 to 36 weeks' gestation. For example, late preterm birth decreased by 7.1 percent from 2006 to 2010 (9.14 to 8.49 percent) while very preterm birth decreased by only 3.4 percent during the same time period (2.04 to 1.97 percent).

The preterm birth rate varies by race and ethnicity. In 2010, 17.12 percent of babies born to non-Hispanic Black women were born preterm, compared to 10.69 percent of babies born to Asian/Pacific Islander women. Among babies born to non-Hispanic White women, 10.77 percent were born preterm, while the same was true of 11.79 percent of babies born to Hispanic women and 13.60 percent of babies born to American Indian/Alaska Native women. The causes of preterm birth are not well understood but are linked to infection and vascular disease, as well as medical conditions, such as diabetes and hypertension, which may necessitate labor induction or cesarean delivery.[18]

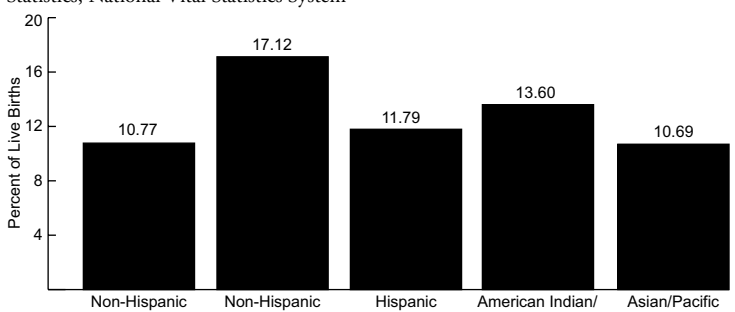
Preterm Birth, by Completed Weeks of Gestation, 1990–2010

Source (II.1, II.3): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Preterm Birth, by Maternal Race/Ethnicity,* 2010

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



**Includes Hispanics. †Separate data for Asians and Native Hawaiians and Other Pacific Islanders not available.*

BREASTFEEDING

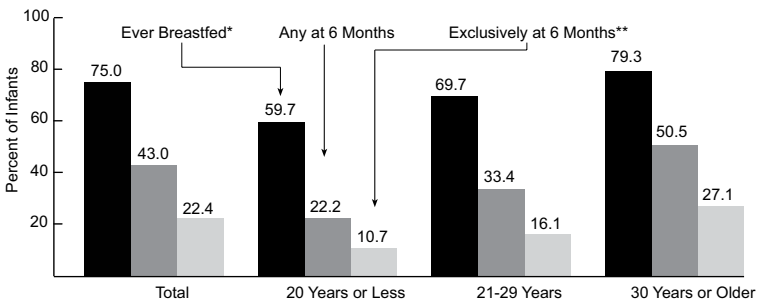
Breastfeeding has been shown to promote the health and development of infants, as well as their immunity to disease. It also confers a number of maternal benefits, such as a decreased risk of breast and ovarian cancers.[19] The American Academy of Pediatrics Section on Breastfeeding recommends exclusive breastfeeding—with no supplemental food or liquids—through the first 6 months of life, and continued supplemental breastfeeding through at least the first year.[20]

Breastfeeding practices vary considerably by a number of factors including maternal age, maternal education, household income, and race/ethnicity.[21] Among infants born in 2007, 75.0 percent were breastfed or fed breastmilk at least once. While this represents a substantial increase in breastfeeding initiation over the past 25 years, the overall prevalence of any breastfeeding for 6 months and the prevalence of exclusive breastfeeding for 6 months remain below national objectives.[22] Less than half (43.0 percent) of infants born in 2007 were breastfed for 6 months and only 22.4 percent were exclusively breastfed.

Children born to mothers aged 30 years or older were the most likely to have been breastfed (79.3 percent), while children born to mothers aged 20 years or younger were the least likely to (59.7 percent). A similar pattern exists for exclusive breastfeeding, as 27.1 percent of children born to mothers aged 30 years or older were exclusively breastfed for 6 months compared to 10.7 percent of children born to mothers aged 20 years or less. Increased maternal education is also associated with successful breastfeeding practices. Mothers who had graduated from college were more likely to both initiate breastfeeding and to breastfeed for 6 months exclusively than those with less education.

Breastfeeding Among Children Born in 2007, by Maternal Age and Duration

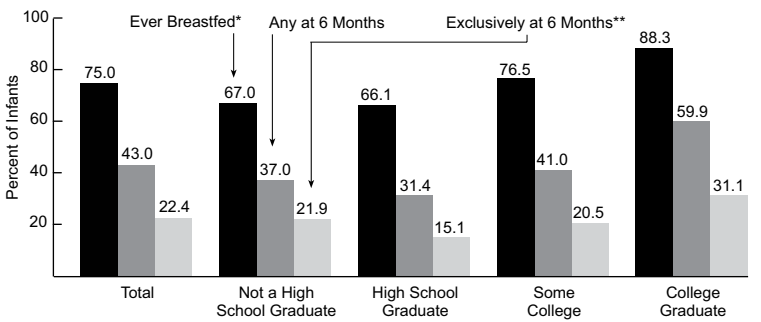
Source (II.4): Centers for Disease Control and Prevention, National Immunization Survey



**Reported that child was ever breastfed or fed human breastmilk. **Exclusive breastfeeding is defined as only human breastmilk—no solids, water, or other liquids.*

Breastfeeding Among Children Born in 2007, by Maternal Education and Duration

Source (II.4): Centers for Disease Control and Prevention, National Immunization Survey



**Reported that child was ever breastfed or fed human breastmilk. **Exclusive breastfeeding is defined as only human breastmilk—no solids, water, or other liquids.*

PREGNANCY-RELATED MORTALITY

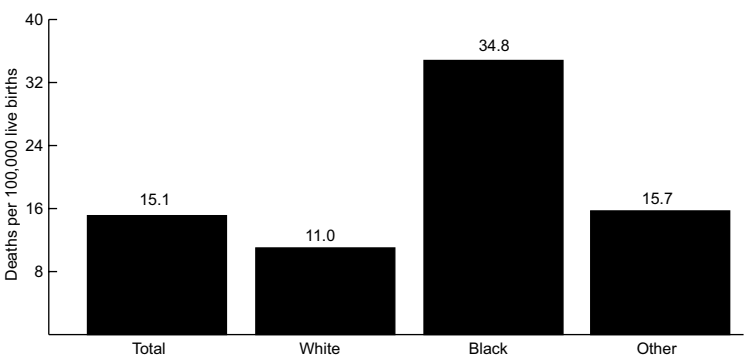
A pregnancy-related death is defined as a death which occurs during or within 1 year after the end of a pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes such as injury.[23] This definition includes more deaths than the traditional definition of maternal mortality, which counts pregnancy-related deaths only up to 42 days after the end of pregnancy. Although maternal mortality in the United States declined dramatically over the last century, this trend has reversed somewhat in the last several decades, and racial and ethnic disparities in both maternal and pregnancy-related mortality persist.[24,25,26]

In 2006-2007, the latest years for which data are available, a total of 1,294 deaths were found to be pregnancy-related (15.1 deaths per 100,000 live births). This represents a substantial increase from 1987 levels of 7.2 pregnancy-related deaths per 100,000 live births.[26] However, the extent to which this increase may reflect improved identification and coding of pregnancy-related deaths is unclear.[25] The pregnancy-related mortality ratio among Black women was approximately 3.2 times the rate for White women in 2006-2007 (34.8 versus 11.0 per 100,000), a disparity that has remained relatively constant. The pregnancy-related mortality ratio also increased with age. Women aged 35-39 years were more than twice as likely to die from pregnancy-related causes as women aged 20-24; for women older than 39 years, the risk increased five-fold (data not shown).[25]

Some of the most common causes of pregnancy-related death in 2006–2007 were cardiovascular disease (13.5%), diseases of the heart muscle (cardiomyopathy, 12.6%), uncontrolled bleeding (hemorrhage, 11.9%), and non-cardiovascular medical conditions (11.8%). In 1987–1990, hemorrhage was the leading cause of pregnancy-related deaths (29%); hypertensive disorders of pregnancy, including preeclampsia and eclampsia, accounted for almost 18 percent of pregnancy-related deaths, compared to 11.1 percent in 2006-2007.[23,26]

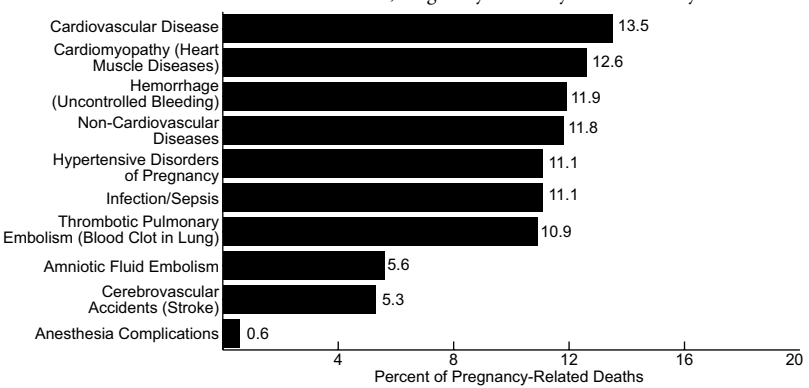
Pregnancy-Related Mortality Ratios, by Race, 2006–2007

Source (II.5): Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Pregnancy Mortality Surveillance System



Leading Causes of Pregnancy-Related Deaths,* 2006–2007

Source (II.5): Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Pregnancy Mortality Surveillance System



**The cause of death was unknown for 5.6% of all pregnancy-related deaths.*

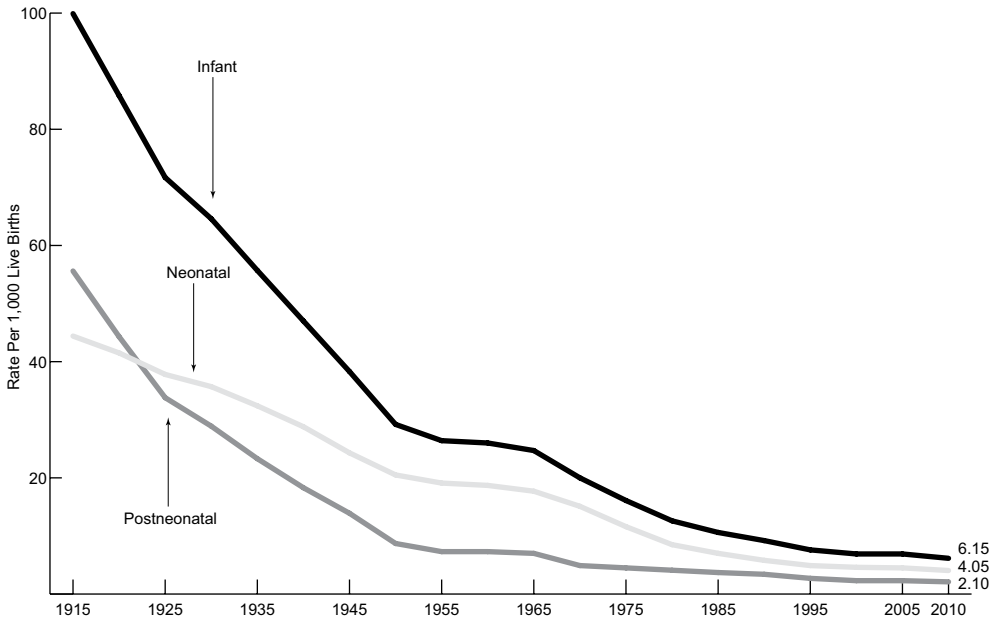
INFANT MORTALITY

In 2010, 24,586 infants died before their first birthday, reflecting an infant mortality rate of 6.15 deaths per 1,000 live births. This represents a decrease of 3.8 percent from the 2009 rate (6.39 deaths per 1,000 live births) and 10.5 percent from the 2005 rate (6.87 per 1,000 live births). Currently, about two-thirds of infant deaths in the United States occur before 28 days (neonatal mortality: 4.05 per 1,000 live births), with the remaining third occurring in the postneonatal period between 28 days and under 1 year (2.10 per 1,000 live births). Neonatal mortality is generally related to short gestation and low birth weight, maternal complications of pregnancy, and congenital malformations, while postneonatal mortality is generally related to Sudden Infant Death Syndrome (SIDS), congenital malformations, and unintentional injuries.[27] In 2010, the leading causes of infant mortality were congenital malformations, followed by disorders related to short gestation and low birth weight, and SIDS.[28]

With the exception of 2000 to 2005, infant mortality had been consistently declining at least every few years since it was first assessed in 1915. The substantial infant mortality decline over the 20th century has been attributed to economic growth, improved nutrition, and new sanitary measures, as well as advances in clinical medicine and access to care.[29,30] Infant mortality declines in the 1990s were aided particularly by the approval of synthetic surfactants to reduce the severity of respiratory distress syndrome (RDS), a common affliction of preterm infants, and the recommendation that infants be placed on their backs to sleep to prevent Sudden Infant Death Syndrome (SIDS). The lack of progress between 2000 and 2005 has been attributed to increases in preterm birth,[31] which have begun to decline in the last several years, perhaps due to practice-based efforts to reduce preterm deliveries that are not medically necessary.[32]

Infant, Neonatal, and Postneonatal Mortality Rates,* 1915-2010**

Source (II.6, II.7, II.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



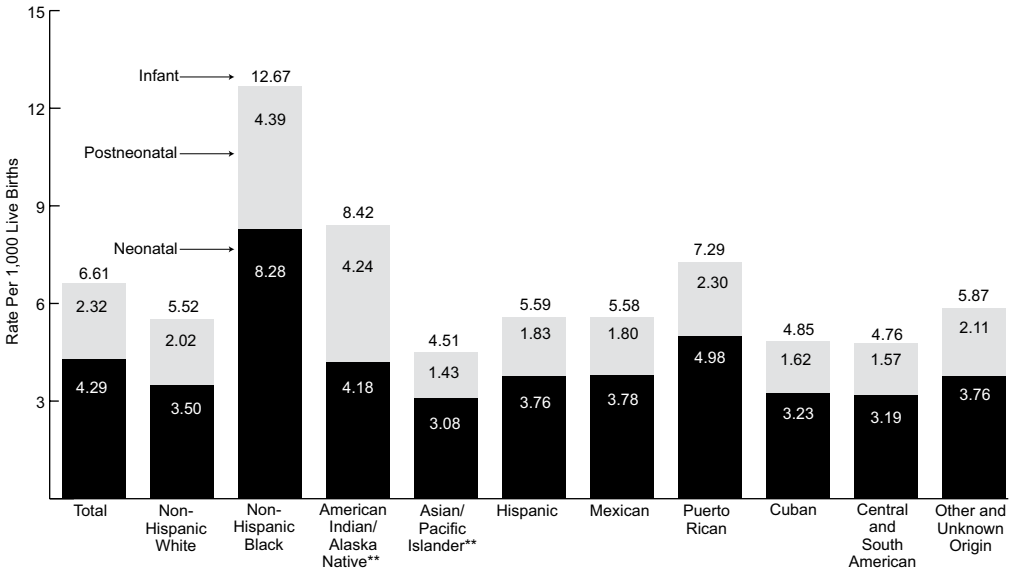
*Infant deaths are under 1 year; neonatal deaths are under 28 days; postneonatal deaths are between 28 days and under 1 year.
**Data from 1915-1932 are a subset from states with birth registration, which became 100% by 1933.

Despite improvements in infant mortality over time, disparities by race and ethnicity persist. Due to inconsistencies in the reporting of race and ethnicity on the birth and death certificate, infant mortality rates by race and ethnicity are more accurately assessed from maternal race and ethnicity, which is achieved by linking infant death certificates to their corresponding birth certificates. In 2008, the latest year for which linked data are available, the infant mortality rate was highest for infants of non-Hispanic Black mothers (12.67 per 1,000 live births)—a rate 2.3 times that of non-Hispanic Whites (5.52 per 1,000). Infant mortality was also higher among infants born to American Indian/Alaska Native and Puerto Rican mothers (8.42 and 7.29 per 1,000, respectively). Although infant mortality was lowest among Asian/Pacific Islanders (4.51 per 1,000), there is considerable variability within this population and higher infant mortality rates have been shown among Native Hawaiians.[33]

Similar to overall infant mortality, neonatal mortality was highest among infants of non-Hispanic Black mothers (8.28 per 1,000), followed by Puerto Rican and American Indian/Alaska Native mothers (4.98 and 4.18 per 1,000, respectively). Postneonatal mortality was more than twice as high for both non-Hispanic black and American Indian/Alaska Native mothers (4.39 and 4.24 per 1,000, respectively) than for non-Hispanic Whites (2.02 per 1,000). Consistent with these patterns in the timing of excess infant mortality, the majority of the infant mortality disparity for non-Hispanic Blacks compared to non-Hispanic Whites is due to causes related to prematurity and, to a lesser extent, SIDS, congenital malformations, and injury.[34,35] The American Indian/Alaska Native infant mortality gap is mostly explained by SIDS, congenital malformations, prematurity, and injury while the excess among Puerto Rican mothers is almost entirely related to prematurity.[34,35]

Infant, Neonatal, and Postneonatal Mortality Rates,* by Race/Ethnicity, 2008

Source (II.9): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Infant deaths are under 1 year; neonatal deaths are under 28 days; postneonatal deaths are between 28 days and under 1 year.
***Includes Hispanics*

INTERNATIONAL INFANT MORTALITY

In 2008, the U.S. infant mortality rate (6.6 infant deaths per 1,000 live births) was higher than the rate for many other industrialized nations. Differences in infant mortality rates among industrialized nations may reflect variation in the definition, measurement, and reporting of fetal and infant deaths. However, recent analyses of the differences in gestational age-specific infant mortality indicate that this disparity is most likely related to the high rate of preterm birth in the United States.[36] Infants born preterm (or less than 37 weeks gestation) have higher rates of death and disability than infants born at term (37 weeks gestation or more).[37] Although the United States compares favorably with European countries with respect to the survival of preterm infants, the higher rate of preterm birth in the United States overall significantly impacts the infant mortality rate.

In 2008, the United States ranked 28th in infant mortality among industrialized nations. In comparison, Iceland and Sweden, both with infant mortality rates of 2.5 deaths per 1,000 live births, were ranked first, followed by Finland and Japan, both with a rate of 2.6 deaths per 1,000. The United States did not always rank this low; in 1960, it ranked 12th, with Iceland, Norway and the Netherlands reporting the three lowest rates among industrialized nations that year.

International Infant Mortality Rates and Rankings,* Selected Countries,** 1960 and 2008

Source (II.10): The Organization for Economic Co-operation and Development (OECD)

Country	Rank 1960	Rank 2008
Australia	6	21
Austria	20	13
Belgium	18	13
Canada	13	24
Chile	28	29
Czech Republic	5	7
Denmark	9	19
Finland	7	3
France	14	15
Germany	19	11
Greece	21	5
Hungary	24	25
Iceland	1	1
Ireland	16	15
Israel	---	15
Italy	23	8
Japan	17	3
Mexico	27	30
Netherlands	3	15
New Zealand	11	23
Norway	2	5
Poland	25	25
Portugal	26	8
Republic of Korea	---	11
Slovak Republic	15	26
Spain	22	8
Sweden	4	1
Switzerland	8	19
Turkey	29	30
United Kingdom	10	22
United States	12	28

**Rankings are from lowest to highest infant mortality rates (IMR). Countries with the same IMR receive the same rank.*
***Countries with at least 2.5 million population and listed in the OECD database.*
--- Data not available.

HEALTH STATUS - CHILDREN

VACCINE-PREVENTABLE DISEASES

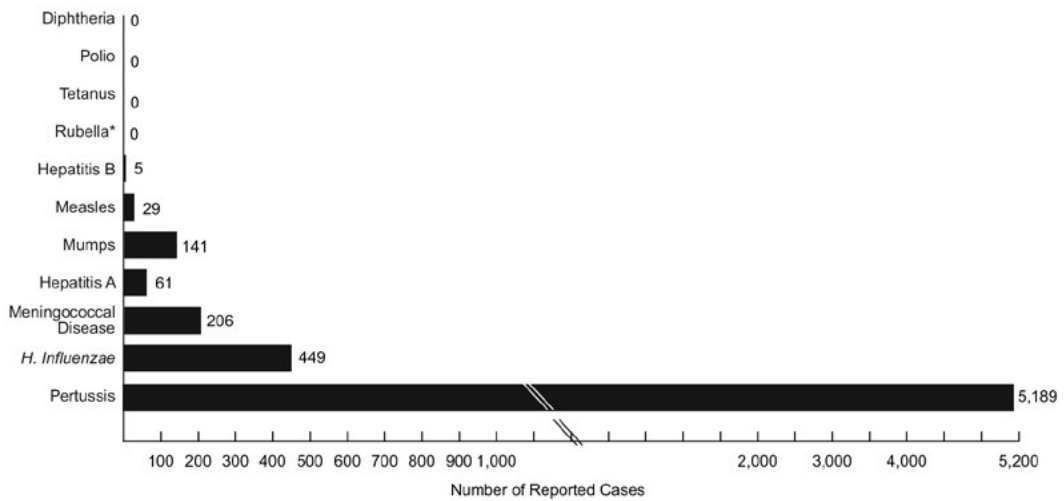
The number of reported cases of vaccine-preventable diseases has generally decreased over the past several decades. In 2009, there were no reported cases of diphtheria, polio, or smallpox in the United States, and no cases of tetanus or of rubella (German measles) among children under 5 years of age.

From 2008 to 2009, the number of reported cases of hepatitis A, measles, and meningococcal disease decreased among children under 5 years of age. The overall incidence of hepatitis A began dropping dramatically once routine vaccination for children living in high-risk areas was recommended beginning in 1996, and in 2005, the Centers for Disease Control and Prevention (CDC) instituted the recommendation that all children be immunized for hepatitis A starting at 1 year of age. The latter recommendation was made because two-thirds of cases were occurring in States where the vaccine was not currently recommended.

The number of cases of pertussis (or whooping cough) and mumps among children aged 0 to 4 years increased between 2008 and 2009 from 3,468 to 5,189 and from 60 to 141, respectively. According to the CDC, pertussis occurs cyclically and decreases in the incidence of the disease may not be due to increases in immunization rates. The highest reported rate occurred among infants under 6 months of age, a population that is too young to be fully vaccinated. In 2006, the United States experienced a multi-state outbreak of mumps, primarily in Midwestern states. In the following 2 years, the number of reported cases returned to usual levels; however, beginning in July 2009, another outbreak has been documented primarily in New York and New Jersey.[38] Reported cases of hepatitis B and *H. influenzae* remained relatively unchanged from 2008 to 2009.

Reported Cases of Selected Vaccine-Preventable Diseases Among Children 0-4 Years, 2009

Source (II.11): Centers for Disease Control and Prevention, National Notifiable Diseases Surveillance System



*Does not include cases of congenital rubella.

PEDIATRIC HIV AND AIDS

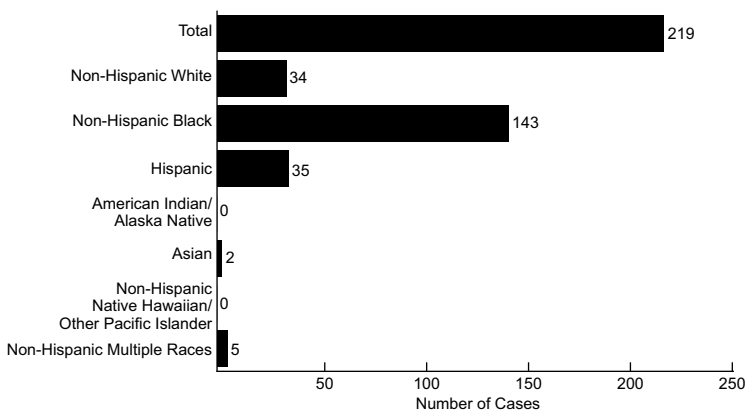
Human immunodeficiency virus (HIV) is a disease that destroys cells that are critical to a healthy immune system. Acquired immunodeficiency syndrome (AIDS) is diagnosed when HIV has weakened the immune system enough that the body has difficulty fighting disease and infections. Estimates presented in previous editions of Child Health USA have included the estimated numbers and rates of diagnoses of HIV infection based on data from 45 areas (40 States and 5 U.S. dependent areas) that have had confidential name-based HIV infection reporting for a sufficient length of time. We are now able to present results from 51 areas that meet this standard of reporting.

In 2010, an estimated 219 children younger than 13 years of age were diagnosed with HIV, and 23 were diagnosed with AIDS. HIV and AIDS disproportionately affect racial and ethnic minorities. In 2010, there were four times as many diagnoses of HIV infection among Non-Hispanic Black as compared to Non-Hispanic White children, but Non-Hispanic Blacks represented only 15 percent of the total U.S. population in this age group.

The number of pediatric AIDS cases has declined substantially since 1992, when an estimated 961 cases were reported. A major factor in this decline is the increasing use of antiretroviral therapy before, during, and after pregnancy to reduce perinatal transmission of HIV and the promotion of universal prenatal HIV testing. Perinatal transmission accounts for 91 percent of all AIDS cases among children in the United States. Antiretroviral therapy during pregnancy can reduce the transmission rate to 2 percent or less, while without treatment the transmission rate is 25 percent.[39]

Estimated Numbers of Diagnoses of HIV Infection* Reported in Children Under Age 13, by Race/Ethnicity, 2010

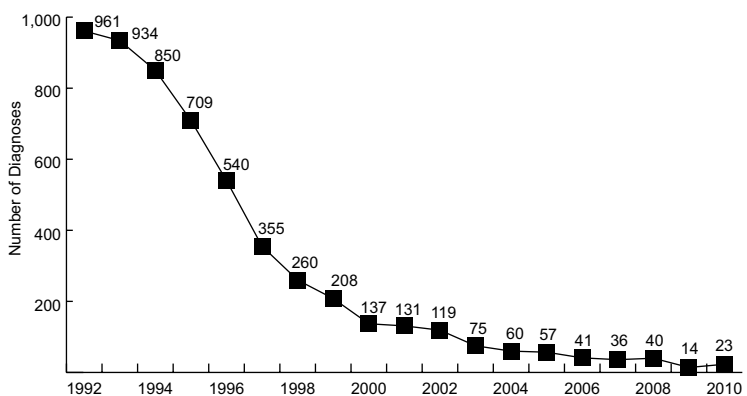
Source (II.12): Centers for Disease Control and Prevention. HIV Surveillance Report, 2010



*Includes persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis.

Estimated Number of AIDS Diagnoses in Children Aged 13 Years and Younger in the U.S.,* by Year of Diagnosis, 1992-2010

Source (II.12): Centers for Disease Control and Prevention. HIV Surveillance Report, 201



*United States and 6 dependent areas.

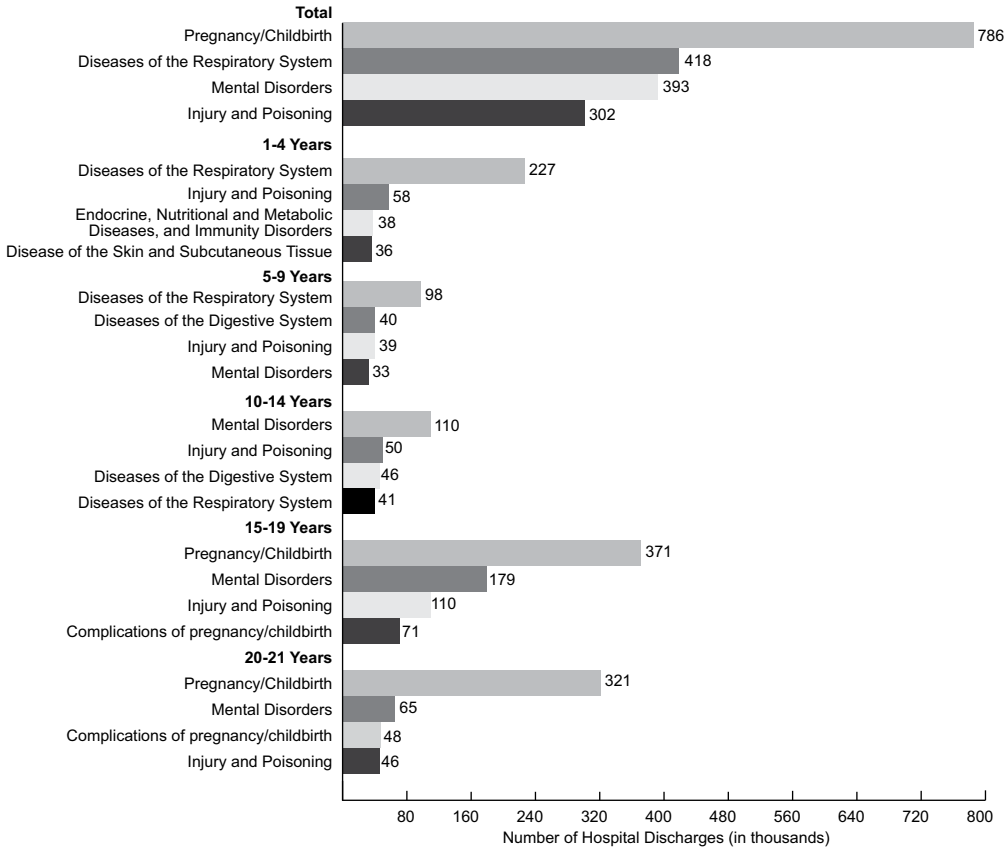
HOSPITALIZATION

In 2010, there were over 3.0 million hospital discharges among people aged 1–21 years, equaling 3.5 hospital discharges per 100 children, adolescents, and young adults. While injuries are the leading cause of death among this age group, they were not the most common cause of hospitalization. In 2010, diseases of the respiratory system, including asthma and pneumonia, were the most common causes of hospitalization among children aged 1–4 and 5–9 years. Among children aged 1–4 years, diseases of the respiratory system accounted for 38.4 percent of discharges; the same was true for 26.8 percent of 5- to 9-year-olds. Mental disorders were the most common cause of hospitalization among children aged 10–14 years (29.0 percent of discharges) and the second most common cause among adolescents aged 15-19 years (16.6 percent of discharges) and young adults aged 20–21 years (10.3 percent). Among adolescents aged 15-19 years and young adults aged 20–21 years, labor and delivery (among females) was the most common cause of hospitalization, resulting in 371,000 and 321,000 discharges, respectively.

Between 1990 and 2010, overall hospital discharge rates among children, adolescents and young adults aged 1–14 years did not change significantly. However, there was a change in the rate for at least one of the most common individual category of discharges: the rate of discharge related to injury and poisoning decreased by 40.2 percent over the last two decades.

Major Causes of Hospitalization, by Age, 2010

Source (II.13): Centers for Disease Control and Prevention, National Hospital Discharge Survey



ABUSE AND NEGLECT

State child protective services (CPS) agencies received approximately 3.3 million referrals, involving an estimated 5.9 million children, alleging abuse or neglect in 2010. Investigations determined that an estimated 695,000 unique children were victims of abuse or neglect in 2010, equaling a victimization rate of 9.2 per 1,000 children in the population. Neglect was the most common type of maltreatment (experienced by 78.3 percent of victims), followed by physical abuse (17.6 percent), sexual abuse (9.2 percent), psychological maltreatment (8.1 percent), and medical neglect (2.4 percent). About 10 percent of victims experienced other types of maltreatment including abandonment, threats of harm, or congenital drug addiction.

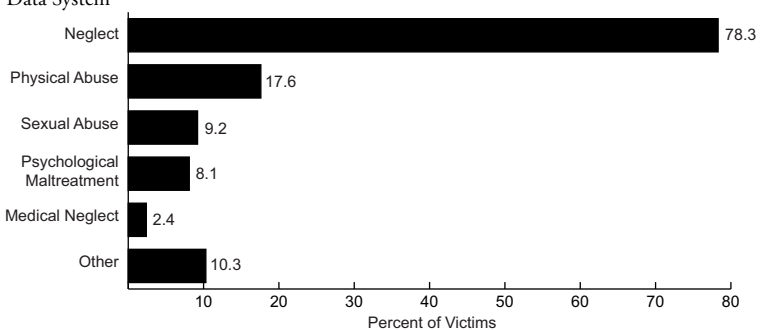
In 2010, children aged 0–3 years accounted for 34.0 percent of all victims, with 12.7 percent younger than 1 year of age. About one-quarter of victims were between the ages of 4 and 7 years, 18.7 percent were aged 8–11 years, 17.3 percent were aged 12–15 years, and 6.2 percent were aged 16–17 years. Victimization was split between the sexes, with boys accounting for 48.5 percent and girls accounting for 51.2 percent (data not shown). A variety of risk factors have been associated with child maltreatment, including child health and disability status, caregiver substance abuse, intimate partner or domestic violence, and poverty.[40]

The effects of child maltreatment can be serious and long-lasting, ranging from increased risk of chronic emotional, behavioral and physical illness[41] to delinquency and criminality[42] to lower levels of socioeconomic achievement.[43] Taken together, the lifetime cost per victim of nonfatal child maltreatment has been estimated at $210,012, while the lifetime cost associated with 1 year of all confirmed cases has been estimated at $124 billion.[44]

Overall, 81.2 percent of perpetrators of abuse or neglect were parents of the victim (either alone or in conjunction with another person). Additional categories of perpetrators included other relatives (6.1 percent), unmarried partners of parents (4.4 percent), and professionals such as childcare workers (0.4 percent; data not shown). Other types of perpetrators included foster parents, friends and neighbors, and legal guardians.

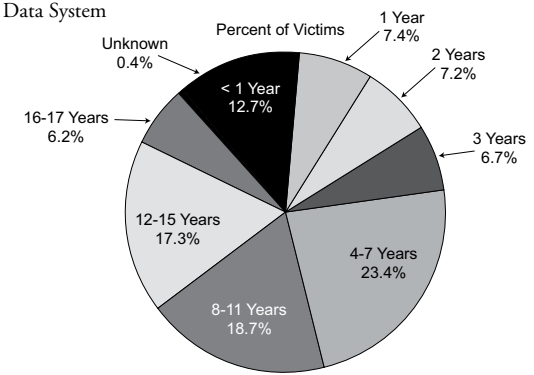
Abuse and Neglect Among Children Under Age 18, by Type of Maltreatment, 2010

Source (II.14): Administration for Children and Families, National Child Abuse and Neglect Data System



Abuse and Neglect Victims, by Age, 2010

Source (II.14): Administration for Children and Families, National Child Abuse and Neglect Data System



CHILD INJURY AND MORTALITY

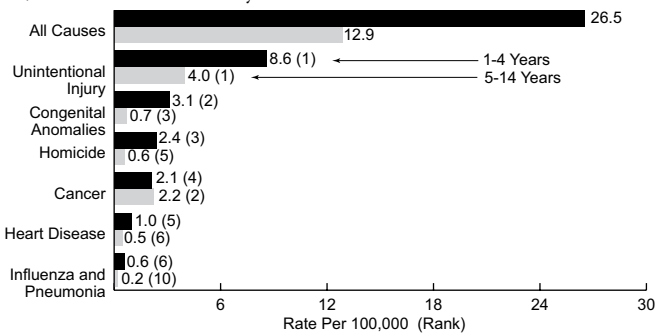
In 2010, the mortality rate among children aged 1–4 years was 26.5 per 100,000 children in that age group, and the rate among children aged 5–14 years was 12.9 per 100,000. Only the mortality rate for children aged 5–14 years declined significantly from 2009 levels, by 1 death per 100,000 or 7.2 percent.[45] However, both the 1–4 year and 5–14 year age groups experienced significant mortality declines from 2000, by 17.9 and 28.9 percent, respectively.[45,46] These declines may be largely attributed to decreases in unintentional injury,[47] which remains the leading cause of child death, accounting for over 30 percent of all deaths in 2010. Congenital anomalies (or birth defects) were the second most common cause of death for 1- to 4-year-olds (3.1 per 100,000) and the third leading cause for 5- to 14-year-olds (0.7 per 100,000). The rate of cancer death was similar for both age groups, about 2 deaths per 100,000, but constituted a greater proportion of deaths among children aged 5–14 years (second leading cause) compared to 1– to 4-year-olds (fourth leading cause) due to their lower overall mortality rate.

The leading causes of unintentional injury also vary by age. In 2009, drowning accounted for the largest number of unintentional injury deaths among children aged 1–4 years, while motor vehicle accidents was the leading cause among children aged 5–14 years (data not shown).[48]

Child injury and mortality vary greatly by race and ethnicity. In 2010, mortality rates among children aged 1–14 years were at least twice as high among non-Hispanic American Indian/Alaska Native and non-Hispanic Black children as non-Hispanic Asian/Pacific Islander children, who had the lowest rates. For example, there were 50.1 and 40.2 deaths per 100,000 non-Hispanic American Indian/Alaska Native and non-Hispanic Black children aged 1–4 years, respectively, compared to 18.5 deaths per 100,000 non-Hispanic Asian/Pacific Islander children of the same age. Unintentional injury death rates are also highest among non-Hispanic American Indian/Alaska Native and non-Hispanic Black children (data not shown).[48]

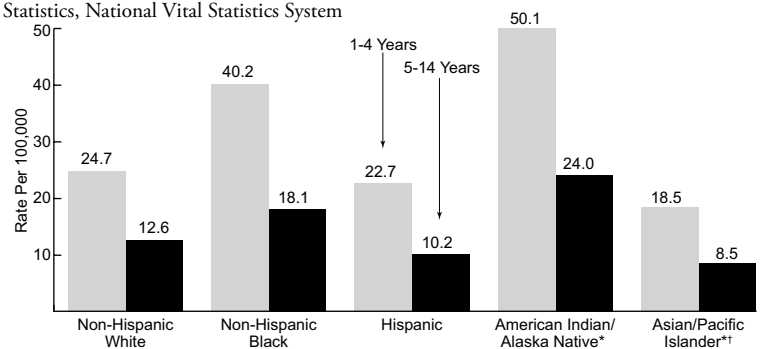
Mortality Rates Among Children Aged 1–14, by Selected Leading Cause and Age, 2010

Source (II.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Mortality Rates Among Children Aged 1–14, by Race/Ethnicity* and Age, 2010

Source (II.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*May include Hispanics.

†Separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available.

ENVIRONMENTAL HEALTH

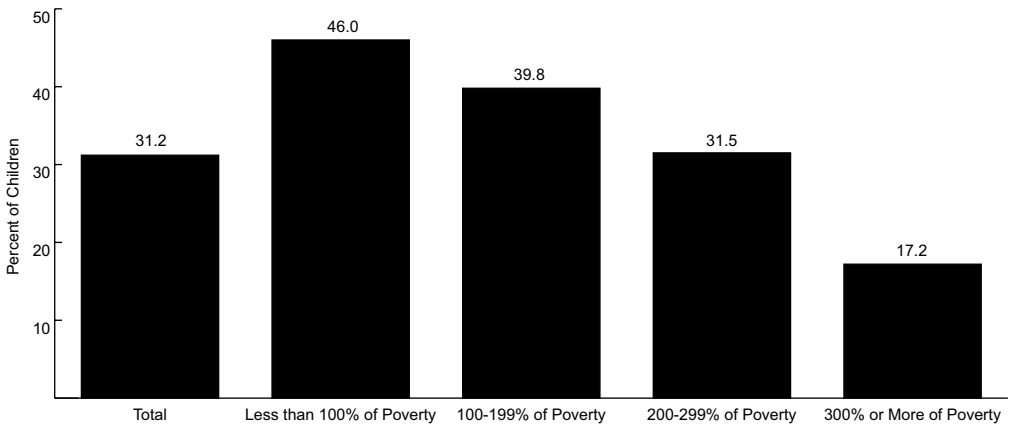
Secondhand Smoke (SHS) includes smoke from a burning cigarette, cigar or pipe as well as smoke that has been exhaled by someone using these products. SHS contains more than 7,000 chemicals, including more than 250 which are toxic or known to cause cancer. Exposure to SHS among children has been linked to ear infections, increased severity of asthma symptoms, respiratory symptoms and infections, and increased risk of Sudden Infant Death Syndrome (SIDS).[49,50] According to the Surgeon General, there is no safe level of SHS exposure for children; even brief periods can be harmful.[50]

In 2009-2010, 29.9 percent of children aged 3–11 years and 31.0 percent of children aged 12–19 years were exposed to SHS, representing nearly 5.5 and 4.4 million children, respectively, in each age group (data not shown). Children were identified as having been exposed to SHS if they had a serum cotinine level greater than or equal to 0.05 ng/mL and less than or equal to 10 ng/mL. Exposure to SHS among children aged 3–19 years varied by poverty and race/ethnicity. More than 45 percent of children living in households with incomes below 100 percent of poverty were exposed to SHS compared to 17.2 percent of children living in households with incomes above 300 percent of poverty. Non-Hispanic Black children were most likely to have been exposed to SHS (50.2 percent) compared to less than 30 percent among children of all other racial/ethnic groups (data not shown).

Environmental contaminants to the air, water, food, and soil can adversely affect children's health and development. Children are particularly vulnerable to environmental toxins because they may be exposed to relatively higher amounts of contaminants than adults through engagement in developmentally-appropriate activities, such as putting their hands in their mouths or playing on the ground, and because their organs are still developing.[51,52] One example of a common environmental exposure among children is lead, which can cause delays in children's cognitive development and attention deficit disorders. Since lead was removed from gasoline, the major source of lead exposure is contaminated dust, paint, and soil. There is no safe level of lead in blood, but a blood lead level of 10 micrograms per deciliter (μg/dL) is considered elevated. In 2009-2010, 50 percent of children aged 1–5 had lead levels below 1.2 μg/dL, and 95 percent of children had levels below 3.4 μg/dL (data not shown). These levels represented a decline of 66 percent and 72 percent, respectively, from those reported in 1988-1991.[53]

Exposure to Secondhand Smoke,* Among Children Aged 3-19 Years, 2009-2010

Source (II.15): Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey



**Defined as having a serum cotinine level greater than or equal to 0.05 ng/mL and less than or equal to 10 ng/mL. **Poverty guideline defined by the U.S. Department of Health and Human Services was $22,050 for a family of four in 2010.*

HEALTH STATUS - ADOLESCENTS

SEXUAL ACTIVITY AND EDUCATION

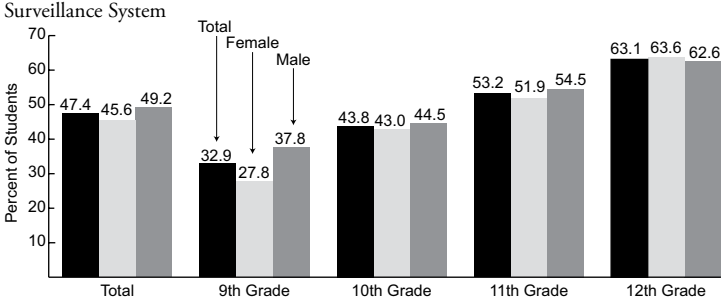
In 2011, 47.4 percent of high school students reported having had sexual intercourse at least once, while the remaining 52.6 percent were abstinent. Sexual activity increased with grade level: 32.9 percent of 9th grade students reported having had sexual intercourse, compared to 43.8 percent of 10th graders, 53.2 percent of 11th graders and 63.1 percent of 12th graders (data not shown). Within each grade, no difference was observed between males and females in the proportion having had sexual intercourse, with the exception of 9th grade, where males were significantly more likely to report having had sexual intercourse than females (37.8 versus 27.8 percent). Males were also significantly more likely to report having had sexual intercourse for the first time before age 13 than females (9.0 versus 3.2 percent; data not shown).

Contraceptive use also varies significantly by sex. Overall, 67.0 percent of males and 53.6 percent of females reported condom use at last intercourse. Use of a hormonal contraceptive (by self or partner) was less common than condom use and was reported by 16.6 percent of males and 30.0 percent of females. Less than 10 percent of adolescents used both a condom and a form of hormonal contraception during last sexual intercourse. Among females, 15.1 percent reported not using any method to prevent pregnancy at last sexual intercourse, compared to 10.6 percent of males.

According to data from the National Survey of Family Growth, 16 percent of females and 28 percent of males had their first experience of sexual intercourse with someone they had just met or with whom they were "just friends" (data not shown).[54] There were large differences by race and ethnicity in the percentage of females whose first sex was with someone they were not regularly involved with. Hispanic female teenagers were less likely than their non-Hispanic White or non-Hispanic Black counterparts to have had first sex with someone they had just met (8.7, 16.0, and 21.0 percent, respectively). There was no significant difference between non-Hispanic Black and non-Hispanic White females in the percentage who had "just met" their first sexual partner.

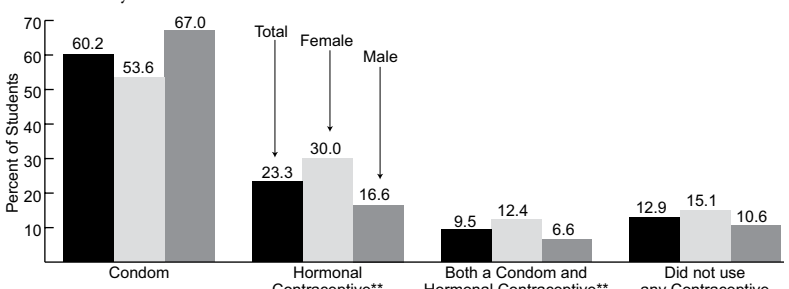
High School Students Who Have Ever Had Sexual Intercourse, by Sex and Grade Level, 2011

Source (II.16): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



Contraceptive Method Used* Among High School Students Who Are Currently Sexually Active, by Sex, 2011

Source (II.16): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



*Used during last sexual intercourse by student or their partner. **Hormonal contraceptive refers to birth control pills, Depo-Provera or other injectable, Nuva Ring or other birth control ring, Implanon or other implant, or any IUD.

ADOLESCENT CHILDBEARING

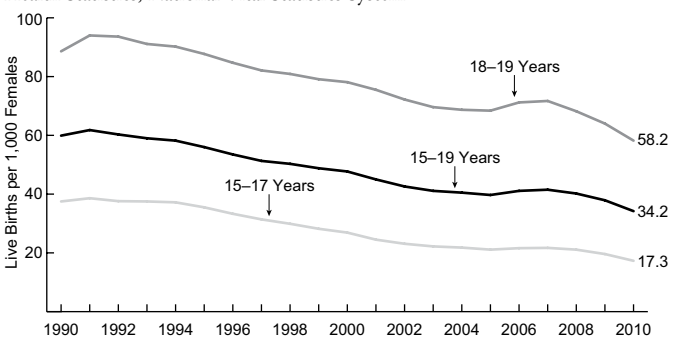
In 2010, the birth rate among adolescent females aged 15–19 years decreased to 34.2 per 1,000 females—the lowest rate ever recorded. This continues the general decline in teen birth rates since the most recent peak in 1991, when the rate was 61.8 per 1,000 females, and represents a decline of 44 percent over that period. In 2010, the birth rate among adolescents aged 15–17 years was lower than for 18– to 19-year-olds (17.3 versus 58.2 births per 1,000) and adolescents aged 15–17 years experienced larger declines in childbearing from the 1991 peak compared with 18– to 19-year-olds (55 versus 38 percent).

Although adolescent birth rates reached historic lows for all race and ethnic groups in 2010, disparities remained. Among adolescents aged 15–19 years, Hispanic and non-Hispanic Black females had the highest birth rates in 2010 (55.7 and 51.5 births per 1,000)—rates more than five times higher than those of Asian/Pacific Islander females (10.9 births per 1,000) and twice as high as non-Hispanic White females (23.5 births per 1,000). American Indian/Alaska Native adolescents aged 15–19 years also had higher birth rates (38.7 births per 1,000) than Asian/Pacific Islander and non-Hispanic White females. These disparities persist for both younger and older adolescents, aged 15–17 years and 18–19 years, respectively.

Declines in adolescent childbearing over the past two decades have been attributed to delays in the age at first intercourse and increased use of highly effective contraceptive methods, including IUDs or hormonal methods.[55] Racial and ethnic disparities in the age of sexual debut have been eliminated due to delays in sexual initiation for non-Hispanic Black and Hispanic females compared with non-Hispanic White females. However, racial and ethnic disparities in contraceptive use persist. In 2006-2010, 65.7 percent of sexually active non-Hispanic White adolescent females used highly effective contraceptive methods, compared to 46.5 percent non-Hispanic Black and 53.7 percent of Hispanic adolescent females (data not shown).[55]

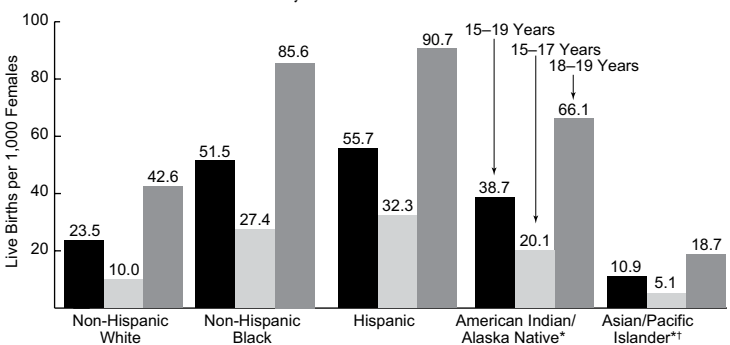
Birth Rates Among Adolescent Females Aged 15–19 Years, 1990–2010

Source (II.1, II.2): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Birth Rates Among Adolescent Females Aged 15–19 Years, by Race/Ethnicity* and Age, 2010

Source (II.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*May include Hispanics.

†Separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available.

SEXUALLY TRANSMITTED INFECTIONS

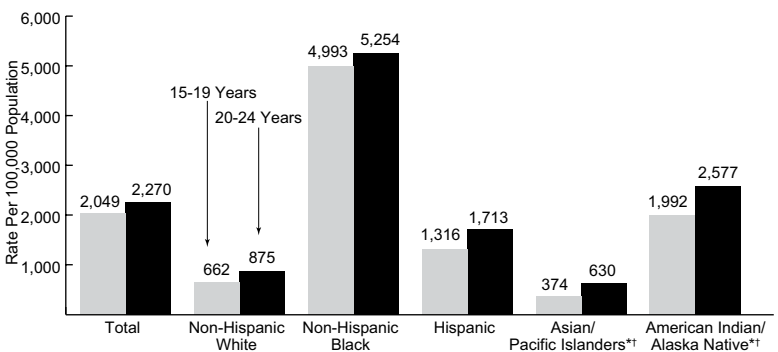
Sexually transmitted infections (STIs), such as chlamydia, gonorrhea, and genital human papillomavirus (HPV) can pose serious, long-term health complications for adolescents and young adults.[56] Although young people aged 15–24 years represent only one-quarter of the sexually experienced population, they acquire nearly half of all new STIs.[57]

Among adolescents and young adults, Chlamydia continues to be the most common of all the STIs reported to the Centers for Disease Control and Prevention (CDC). There were 2,049 chlamydial infections per 100,000 adolescents aged 15-19 years and 2,270 per 100,000 young adults aged 20-24 years in 2010. Gonorrhea was less common, with rates of 410 and 490 per 100,000 in these age groups, respectively. Rates for both diseases vary by race and ethnicity. Among adolescents aged 15-19 years, the highest rate of chlamydia was reported among non-Hispanic Blacks (4,993 per 100,000), followed by American Indian/Alaska Natives (1,992 per 100,000). Rates of gonorrhea were also highest among these two racial/ethnic groups for adolescents and young adults.

Unlike chlamydia and gonorrhea, HPV infections are not required to be reported to the CDC; however, persistent infection of specific types of HPV can lead to cancer.[58] The overall prevalence of all types of HPV among females aged 14-59 is estimated to be 42.5 percent.[59] A vaccine for certain types of HPV was approved in 2006 for use in females aged 9–26 years and licensed in October 2009 for use in males aged 9-26 years.[60] In 2010, 53.0 percent of females aged 13–17 years had received at least one dose of the three-dose series.[61]

Reported Chlamydia Infections Among Adolescents and Young Adults, by Age and Race/Ethnicity, 2010

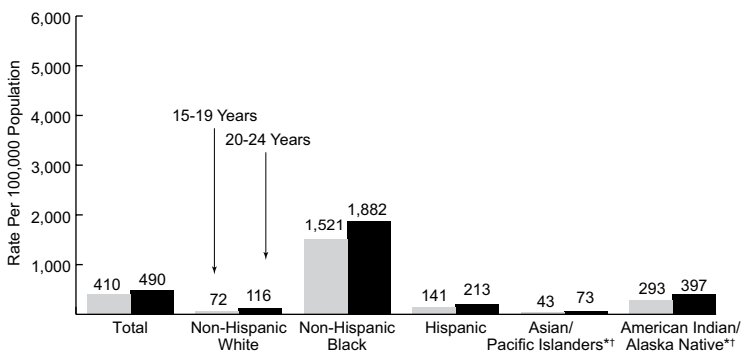
Source (II.17): Centers for Disease Control and Prevention, STD Surveillance System



**Separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available.*
†May include Hispanics.

Reported Gonorrhea Infections Among Adolescents and Young Adults, by Age and Race/Ethnicity, 2010

Source (II.17): Centers for Disease Control and Prevention, STD Surveillance System



**Separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available.*
†May include Hispanics.

ADOLESCENT AND YOUNG ADULT HIV AND AIDS

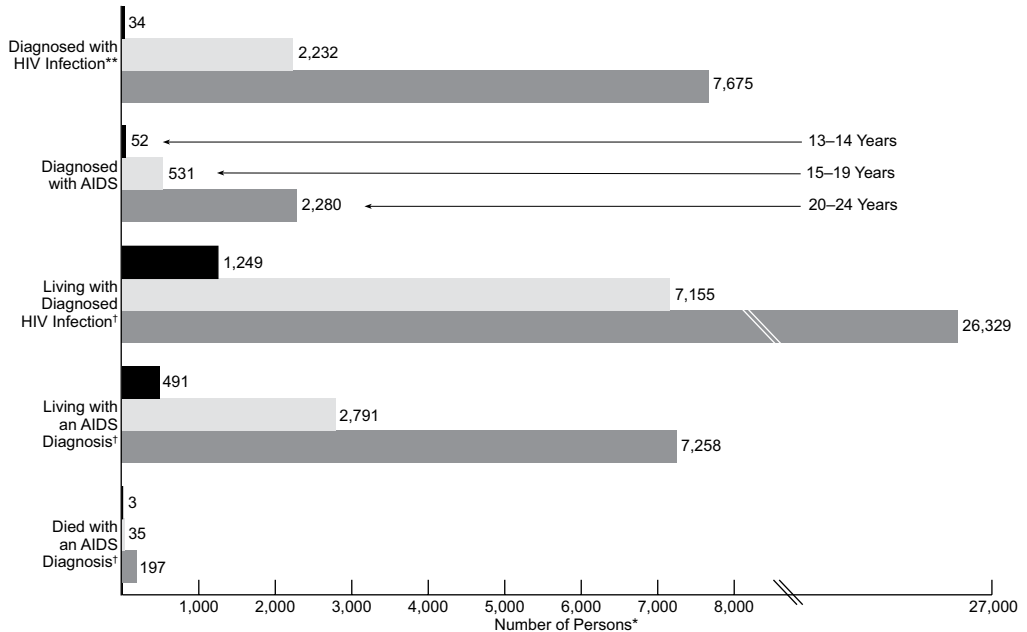
Human immunodeficiency virus (HIV) is a disease that destroys cells that are critical to a healthy immune system. Acquired immunodeficiency syndrome (AIDS) is diagnosed when HIV has weakened the immune system enough that the body has difficulty fighting disease and infections. HIV prevention is a particularly important issue for adolescents and young adults, as these groups experience the majority of new HIV infections. In 2009, those aged 15–29 accounted for 39 percent of all new HIV infections in the U.S., while this age group represented 21 percent of the U.S. population in 2010.[62] Early age at sexual initiation, unprotected sex, drug use, older sex partners and lack of awareness places adolescents at an increased risk of contracting HIV.

In 2009, more than 37,000 adolescents and young adults between 13–24 years of age were living with a diagnosed HIV infection. Between 2007 and 2010, the rate of diagnosed HIV infection remained stable for younger adolescents (aged 13–14 years) while increasing for those aged 15–24 years (data not shown). A similar pattern by age group was observed for the rate of AIDS diagnosis, with rates increasing for those aged 15–24 years. In 2009, 11,094 persons aged 13–24 years were living with an AIDS diagnosis. Between 2007 and 2009, the rate of deaths with an AIDS diagnosis remained stable for the U.S. population as a whole, but increased among persons aged 20–24 years (data not shown).

Abstaining from sex and drug use is the most effective way to avoid HIV infection. Adolescents and young adults can also reduce their risks by informing themselves of how to negotiate safer sex, where to get tested for HIV, and how to use a condom correctly. The CDC has developed interventions that can be carried out locally to help reduce the risk to adolescents. One such program, *Choosing Life: Empowerment! Action! Results!*, is for those older than 16 years of age and living with HIV infection or AIDS or at high risk for HIV.[63]

Selected Data on HIV* and AIDS Among Adolescents and Young Adults, by Age, 2009

Source (II.18): Centers for Disease Control and Prevention. HIV Surveillance Report, 2010



*Estimated numbers reflect statistical adjustment for reporting delays and missing risk-factor information, but not for incomplete reporting. Data for United States and dependent areas. **Estimates for 2010. †Estimates for 2009.

PHYSICAL ACTIVITY

The U.S. Department of Health and Human Services recommends that children and adolescents get 1 hour or more of physical activity every day, most of which should be moderate- to vigorous-intensity aerobic activity.[64] Data from the 2011 Youth Risk Behavior Surveillance System showed that 28.7 percent of high school students were physically active for at least 60 minutes on each of the 7 previous days. This represents an increase in adolescent physical activity from the 2009 level of 19.4 percent.

Overall, 13.8 percent of students did not participate in 60 or more minutes of physical activity on any day in the preceding week. The rate was higher for females (17.7 percent) than males (10.0 percent) and among Asian (22.2 percent), non-Hispanic Black (19.6 percent), and Hispanic (15.9 percent) high school students compared to non-Hispanic Whites (11.0 percent; data not shown).

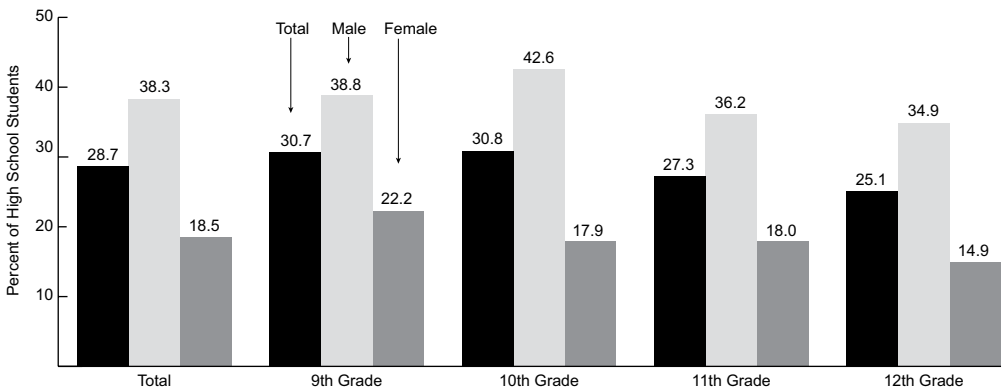
Participation in recommended levels of physical activity varied by sex and grade level. Among high school students in all grades, a smaller proportion of females reported 60 minutes of physical activity on each of the previous seven days than males. Among 9th graders, 22.2 percent of females achieved recommended levels of physical activity, compared to 38.8 percent of their male counterparts. By 12th grade, only 14.9 percent of females met the recommended levels compared to 34.9 percent of males in the same grade.

In 2011, 51.8 percent of high school students attended physical education (PE) classes at least one day per average school week. The rate decreased with each grade level: 68.1 percent of 9th grade students attended PE class on one or more days in an average week, while the same was true for 54.6 percent of 10th graders, 42.9 percent of 11th graders and 38.5 percent of 12th grade students. Overall, only 31.5 percent of high school students attended daily PE classes in 2011 (data not shown).

In 2011, 58.4 percent of high school students reported playing on at least one sports team in the past year. This was more common among younger adolescents than older adolescents (61.4 percent of 9th graders compared to 52.5 percent of 12th graders). Sports participation also varied by sex. Just over one-half of adolescent females (52.6 percent) reported playing on at least one sports team in the past year, compared to 64.0 percent of males. These differences increased with age: while 57.1 percent of 9th grade females reported sports participation in 2011, only 44.5 percent of 12th grade females did so. Among males, the rates of past-year sports team participation declined from 65.6 percent among 9th graders to 60.2 percent among 12th graders (data not shown).

Physical Activity* Among High School Students, by Sex and Grade Level, 2011

Source (II.19): Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey



**Defined as physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes on each of the last 7 days.*

SEDENTARY BEHAVIORS

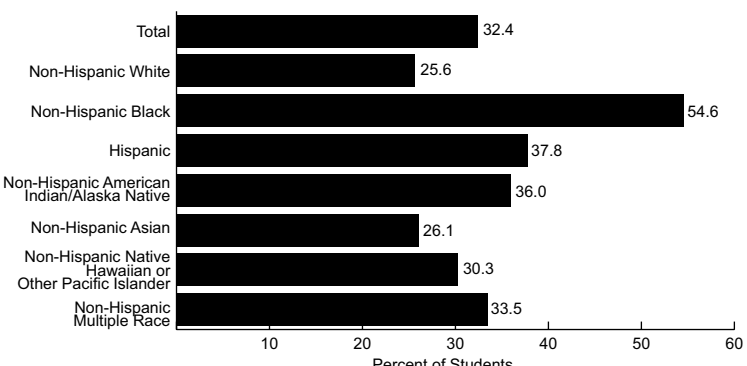
The American Academy of Pediatrics recommends that parents limit children's media time to 1–2 hours per day.[65] This includes time spent watching TV or videos as well as time spent playing video games. In 2011, 32.4 percent of high school students reported watching 3 or more hours of television per day on an average school day. There was no significant difference in the proportion of males and females who reported this behavior. However, younger students, those in 9th grade, were slightly more likely to watch 3 or more hours of television (33.9 percent) than the oldest students, those in 12th grade (30.4 percent; data not shown).

The proportion of students who reported 3 or more hours of television watching varied significantly by race/ethnicity. Over half (54.6 percent) of non-Hispanic Black students reported this behavior, while the same was true for about one-quarter of non-Hispanic White and Asian students (25.6 percent and 26.1 percent, respectively), and slightly more than one-third of Hispanic (37.8 percent) and non-Hispanic American Indian/Alaska Native (36.0 percent) students.

In the same year, nearly one-third (31.1 percent) of high school students reported using computers for something other than school work, such as video or computer games, for 3 or more hours per day on an average school day. The proportion varied by sex and grade level. Overall, males were more likely to report non-school related computer usage of 3 or more hours than females (35.3 percent versus 26.6 percent) as were 9th grade students (32.5 percent) compared to those in 12th grade (28.8 percent). Across all grade levels, a greater proportion of males reported 3 or more hours of daily non-school related computer use during weekdays. Daily computer use also varied by race/ethnicity, with non-Hispanic Asians and Blacks more likely to report this level of computer use than non-Hispanic White or Hispanic students (data not shown).

High School Students Who Watched 3 or More Hours of Television per Day,* by Race/Ethnicity, 2011

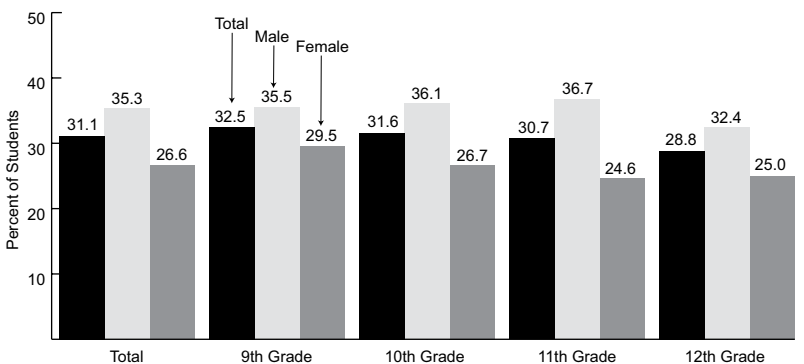
Source (II.19): Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey



*On an average school day.

High School Students Who Used Computers for 3 or More Hours per Day for Something Other than School Work,* by Sex and Grade, 2011

Source (II.19): Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey



*On an average school day.

DIETARY BEHAVIORS

The *Dietary Guidelines for Americans 2010* recommends eating a variety of nutrient-dense foods and beverages while maintaining calorie balance to reach and maintain a healthy weight. The *Guidelines* encourage all individuals aged 2 years and older to consume a variety of fruits and vegetables, whole grains, fat-free or low-fat milk products, as well as a variety of protein foods, including seafood, lean meats and poultry, eggs, beans and peas, soy products, and nuts and seeds, while limiting sodium, solid fats, added sugars, and refined grains.[66]

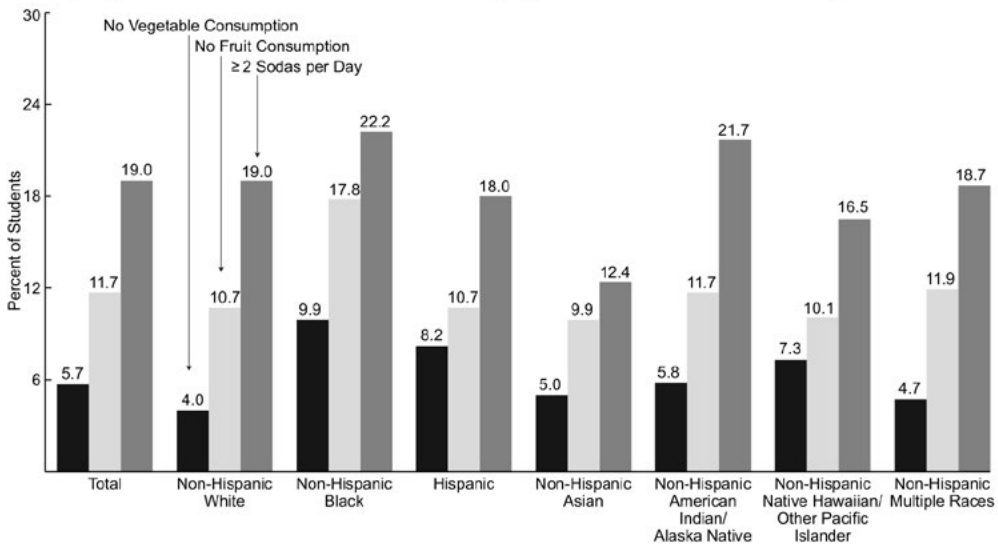
In 2011, 5.7 percent of high school students reported that they did not eat any vegetables during the past 7 days, while 11.7 percent reported that they did not eat any fruit during the past week. Overall, males were more likely than females to report no vegetable or fruit consumption in the past week (6.9 percent versus 4.5 percent and 12.6 percent versus 10.7 percent, respectively; data not shown). The proportion of adolescents who reported neither vegetable nor fruit consumption also varied by race and ethnicity. Non-Hispanic White and Asian students were generally less likely to report no vegetable consumption than non-Hispanic Black and Hispanic students. Non-Hispanic Blacks were also more likely to report no fruit consumption in the past week.

Overall, 15.3 percent of high school students reported eating vegetables three or more times per day and nearly one-quarter (22.4 percent) reported eating fruit or drinking 100% fruit juice three or more times per day in the past 7 days. Males were more likely to report this level of fruit and vegetable consumption than females; no trends were observed by grade level (data not shown).

Because soda, energy drinks, and sports drinks are a major source of added sugar for Americans, the Guidelines recommend limiting the consumption of such beverages in order to lower calorie consumption. In 2011, nearly one-fifth (19.0 percent) of high school students drank two or more cans, bottles or glasses of soda per day during the last 7 days.[67] Males were more likely than females to consume two or more sodas a day (21.8 percent versus 16.1 percent; data not shown). Few racial/ethnic differences were observed, with the notable exception of non-Hispanic Asian students, of whom only 12.4 percent reported consuming this amount of soda.

High School Students Who Engaged in Selected Dietary Behaviors, by Race/Ethnicity, 2011

Source (II.19): Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey



OVERWEIGHT AND OBESITY

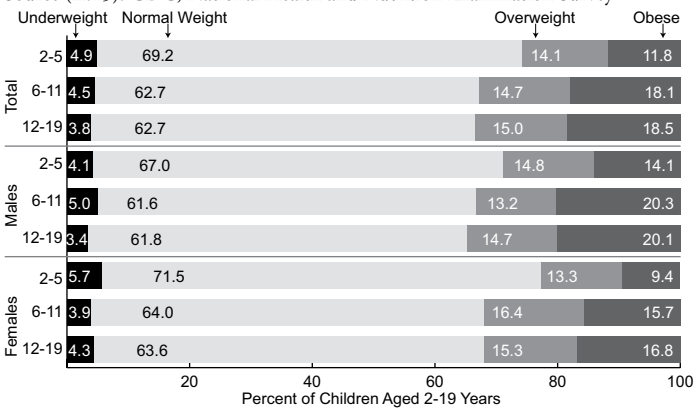
Body mass index (BMI) is the ratio of weight to height, which is used to define overweight and obesity as well as normal weight status and underweight. In children, BMI is used in conjunction with age and sex, since both of these factors affect body composition. Children who fall between the 85th and 94th percentile of BMI-for-age are considered overweight, while children who are in the 95th percentile or above are considered obese; those who fall below the 5th percentile are considered underweight and those between the 5th and 84th percentile are considered to be normal weight. In 2009–10, 14.7 percent of children aged 2–19 years were overweight, 16.9 percent were obese, 64.1 percent were normal weight, and 4.3 percent were underweight based on measured height and weight (data not shown).

Weight status among children varies by a number of factors, including age and sex, race/ethnicity, and household income. School-aged children were more likely to be obese than preschool-aged children: approximately 18 percent of children aged 6–11 years and 12–19 years were considered to be obese, compared to 11.8 percent of children aged 2–5 years.

The prevalence of overweight and obesity also varied by race/ethnicity. Nearly one-quarter of non-Hispanic Black children were considered to be obese in 2009–10 and another 15 percent considered to be overweight. Similarly, nearly 40 percent of Mexican-American and other Hispanic children were either overweight or obese. In comparison, approximately 28 percent of non-Hispanic White children were overweight or obese. Racial/ethnic differences were particularly pronounced among females: between 18-24 percent of non-Hispanic Black, Mexican-American, and other Hispanic girls were obese, compared to 11.5 percent of their non-Hispanic White counterparts.

Weight Status* Among Children Aged 2-19 Years, by Age and Sex, 2009-10

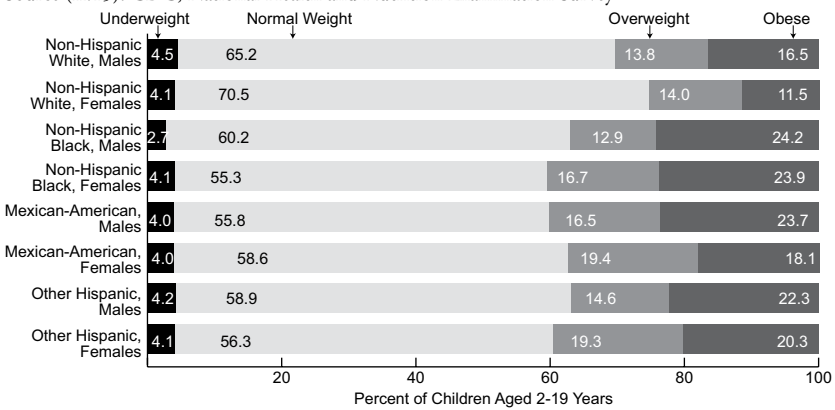
Source (II.15): CDC, National Health and Nutrition Examination Survey



*Underweight is a BMI-for-age under the 5th percentile, normal weight is a BMI-for-weight between the 5th and 84th percentile, overweight is a BMI-for-age between the 85th and 94th percentile, and obesity is a BMI-for-age in the 95th percentile or above; based on parent-reported height and weight.

Weight Status* Among Children Aged 2-19 Years, by Race/Ethnicity and Sex, 2009-10

Source (II.15): CDC, National Health and Nutrition Examination Survey



*Underweight is a BMI-for-age under the 5th percentile, normal weight is a BMI-for-weight between the 5th and 84th percentile, overweight is a BMI-for-age between the 85th and 94th percentile, and obesity is a BMI-for-age in the 95th percentile or above; based on parent-reported height and weight.

WEIGHT CONTROL BEHAVIORS

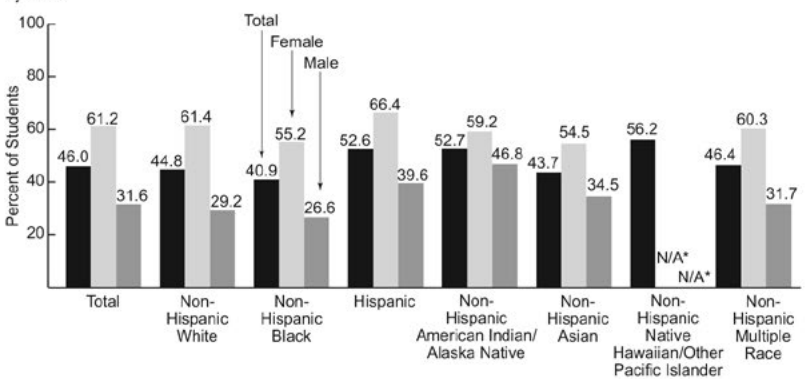
In 2011, 46.0 percent of high school students reported that they were trying to lose weight. Nearly twice as many adolescent females (61.2 percent) reported that they were trying to lose weight as males (31.6 percent); this ratio persisted across all grade levels (data not shown). Non-Hispanic Black students were less likely to report trying to lose weight (40.9 percent) than non-Hispanic Whites (44.8 percent), and Hispanic students (52.6 percent). Among all racial/ethnic groups, with the exception of non-Hispanic American Indian/Alaska Native students, females were more likely to report trying to lose weight than males.

The Youth Risk Behavior Surveillance System asked students about behaviors to lose or keep from gaining weight in the 30 days prior to the survey: fasting for 24 hours or more, taking supplements, including diet pills, powders or liquids, and vomiting or taking laxatives. Overall, 12.2 percent, 5.1 percent, and 4.3 percent of high school students reported engaging in each of these behaviors, respectively.

The proportion of students reporting each of these behaviors was similar across grade level; however, significant sex differences were observed. For example, more than twice as many females reported fasting for 24 hours or more than males (17.4 percent compared to 7.2 percent) and 6.0 percent of females reporting vomiting or taking laxatives, compared to 2.5 percent of males. The prevalence of weight control behaviors also varied by race/ethnicity. Non-Hispanic American Indian/Alaska Native students were more likely than non-Hispanic Black, Asian, and White students to report either fasting for 24 hours or more or vomiting/taking laxatives (data not shown).

High School Students Who Tried to Lose Weight in the Past 12 Months, by Race/Ethnicity and Sex, 2011

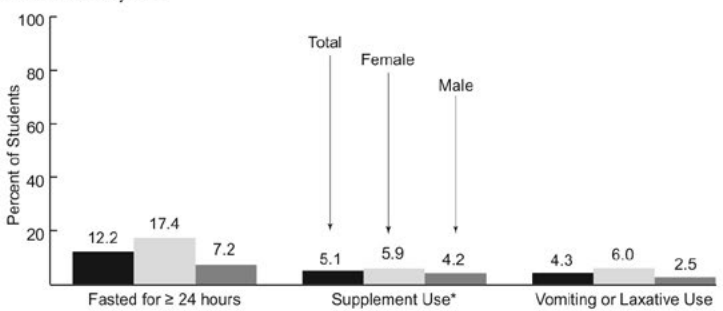
Source (II.19): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



*Sex-specific data for Native Hawaiian/Other Pacific Islanders do not meet standards for reliability or precision.

High School Students Who Engaged in Selected Weight Control Behaviors in Past 30 Days, by Sex, 2011

Source (II.19): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



*Includes diet pills, powders or liquids.

MENTAL HEALTH

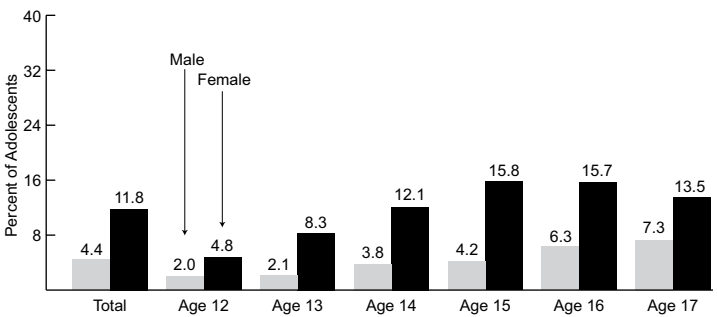
In 2010, 8.0 percent of adolescents aged 12–17 years, or 1.9 million adolescents, experienced at least one major depressive episode (MDE), which is defined as having at least 2 weeks of a depressed mood or loss of interest or pleasure in daily activities, plus a majority of specific depression symptoms, such as altered sleeping patterns, fatigue, and feelings of worthlessness (data not shown).[68] Females were more likely than males to experience MDE (11.8 percent versus 4.4 percent). Occurrence of MDE increased with age, from 3.3 percent among children age 12 years to 10.9 and 10.3 percent among children ages 16 and 17, respectively (data not shown).

Among adolescents experiencing MDE in 2010, over two-thirds (1.3 million) also experienced severe impairment, defined by the degree to which activities and roles, such as completing chores at home, going to school or work, or maintaining close family relationships, are affected. MDE with severe impairment was more common among older adolescents and females (data not shown).

In 2010, adolescents aged 12 to 17 with past-year MDE were more likely than those without MDE to have used illicit drugs in the past year (37.2 compared to 17.8 percent). Adolescents with past-year MDE were also more likely to report daily cigarette and heavy alcohol use in the past month compared with those without past-year MDE. Among adolescents with past-year MDE who used illicit drugs, 25.3 percent reported using marijuana or hashish, and 17.0 percent reported non-medical use of psychotherapeutics such as pain relievers, tranquilizers, stimulants, and sedatives. Among adolescents who did not experience past-year MDE, the proportion who reported using these substances was 12.9 and 6.5 percent, respectively (data not shown).

Occurrence of Major Depressive Episode (MDE)* in the Past Year Among Adolescents Aged 12–17 Years, by Age and Sex, 2010

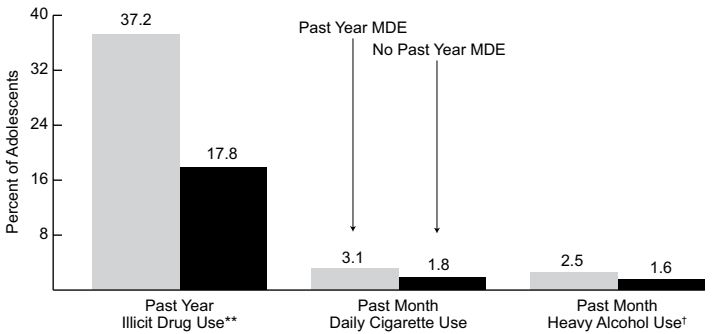
Source (II.20): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



*MDE is defined as a period of at least two weeks when a person experienced a depressed mood or loss of pleasure in daily activities and had a majority of specific depression symptoms.

Substance Use Among Adolescents Aged 12–17 Years, by Past-Year Major Depressive Episode (MDE)*, 2010

Source (II.20): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



*MDE is defined as a period of at least two weeks when a person experienced a depressed mood or loss of pleasure in daily activities and had a majority of specific depression symptoms. **Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically. †Heavy Alcohol Use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days.

SUICIDE

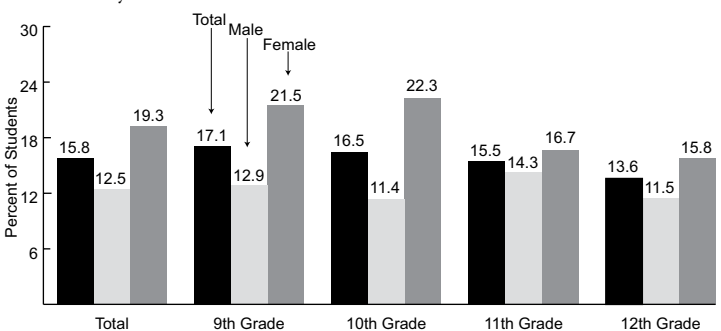
In 2009, the latest year for which mortality data were available, suicide was the third leading cause of death among persons aged 15–24 years, resulting in over 4,300 deaths, for a rate of 10.2 deaths per 100,000 population. The most common methods used in suicides of adolescents and young adults include firearms (45.6 percent), suffocation (38.6 percent), and poisoning (8.0 percent).[69]

In 2011, data from the Youth Risk Behavior Surveillance System showed that 15.8 percent of high school students had seriously considered attempting suicide during the 12 months prior to the survey. Younger students, those in 9th and 10th grade, were more likely than the oldest students to consider suicide (17.1 and 16.5 percent, respectively versus 13.6 percent). Female students were more likely than males to have considered suicide at each grade level, with the exception of 11th grade, in which no significant difference by sex was observed.

In the same year, 7.8 percent of high school students reported having attempted suicide one or more times in the past 12 months, reflecting a significant increase since 2009 (6.3 percent). Overall, females (9.8 percent) were more likely to report at least one suicide attempt than males (5.8 percent; data not shown). The proportion of students who reported having attempted suicide also varied by race/ethnicity. Non-Hispanic White students were less likely to report attempted suicide (6.2 percent) than students of all other racial and ethnic groups. Female students were significantly more likely to report attempted suicide among all racial and ethnic groups except non-Hispanic Blacks and students of more than one race (data not shown).

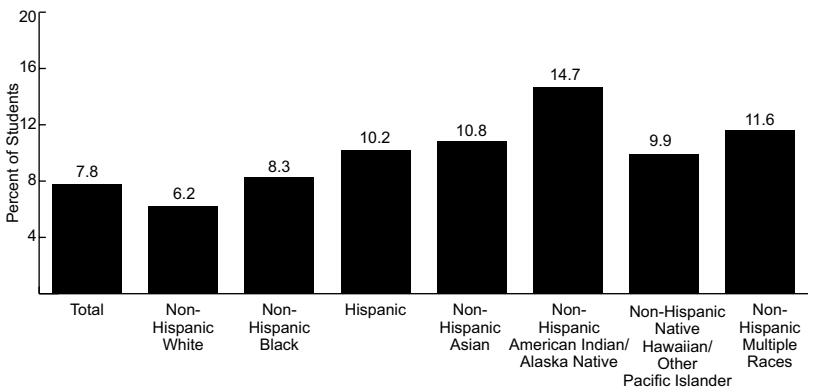
High School Students Who Considered Attempting Suicide in the Past 12 Months, by Grade Level and Sex, 2011

Source (II.19): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



High School Students Who Attempted Suicide One or More Times in the Past 12 Months, by Race/Ethnicity, 2011

Source (II.19): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



VIOLENCE

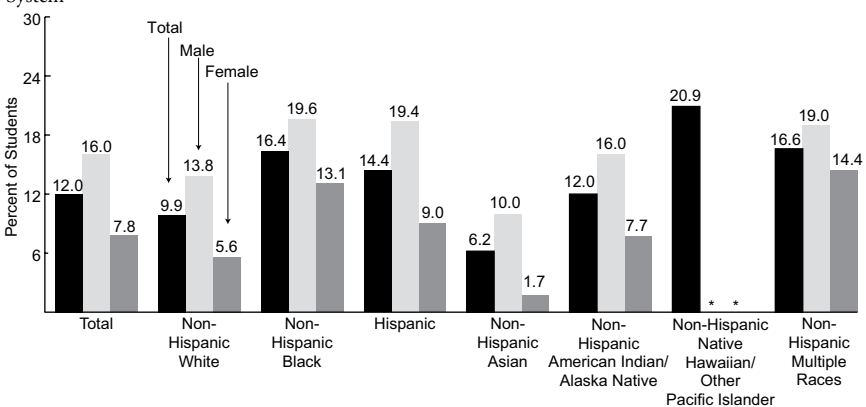
Physical violence among adolescents occurs in multiple forms and is a critical public health issue in the United States. Instances of violence include homicide, which was the second leading cause of death among all persons aged 10–24 years in 2009 (the latest year for which data are available).[70] For non-Hispanic Blacks aged 10–24 years, homicide was the leading cause of death, among Hispanics it was the second leading cause of death, and among non-Hispanic American Indians and Alaska Natives it was the third leading cause of death. Among both non-Hispanic Whites and Asian/Pacific Islanders it was the fourth leading cause of death among individuals in this age group (data not shown).[70]

Data from the Youth Risk Behavior Surveillance System show that, in 2011, 12.0 percent of high school students reported being in a physical fight on school property during the preceding 12 months. Among males, 16.0 percent reported having been in a fight; this is more than twice the rate reported by females (7.8 percent). This disparity was most pronounced among non-Hispanic Whites, where males were almost three times as likely as females to have been in a fight (13.8 percent versus 5.6 percent), although significant sex differences were observed across all racial/ethnic groups. Overall, non-Hispanic Asian students were least likely to report having been in a fight (6.2 percent) while over one-fifth of non-Hispanic Native Hawaiian or Other Pacific Islander students reported having been in a physical fight on school property in the past year.

Approximately 1 out of every 10 high school students reported that they were hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend at least once in the past 12 months. The prevalence of dating violence was similar across grade levels and among males and females.

High School Students in a Physical Fight on School Property in the Past 12 Months, by Race/Ethnicity* and Sex, 2011

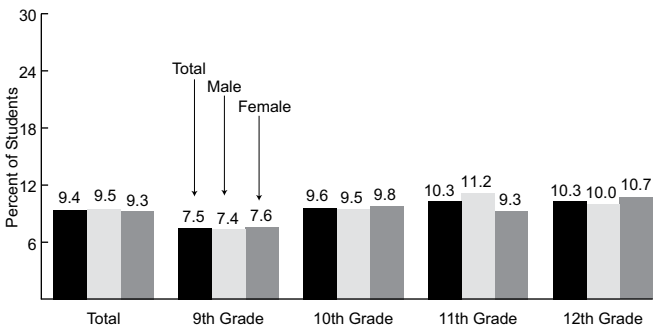
Source (II.19): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



**Sex-specific data for American Indian/Alaska Natives and Native Hawaiian/Other Pacific Islanders do not meet standards for reliability or precision.*

High School Students Experiencing Dating Violence* in the Past 12 Months, by Grade Level and Sex, 2011

Source (II.19): Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System



**Dating violence was defined as having been hit, slapped, or physically hurt on purpose by a boyfriend or girlfriend.*

BULLYING

Bullying is defined as unwanted, aggressive behavior among school-aged children that may be repeated, or has the potential to be repeated, and involves a real or perceived imbalance of power. Making threats, spreading rumors, attacking someone physically or verbally, and excluding someone from a group on purpose are all examples of bullying. There is no specific factor that puts children at risk of being bullied or bullying others, although some groups, such as lesbian, gay, bisexual, or transgendered (LGBT) youth, youth with disabilities, and socially isolated youth may be at higher risk.

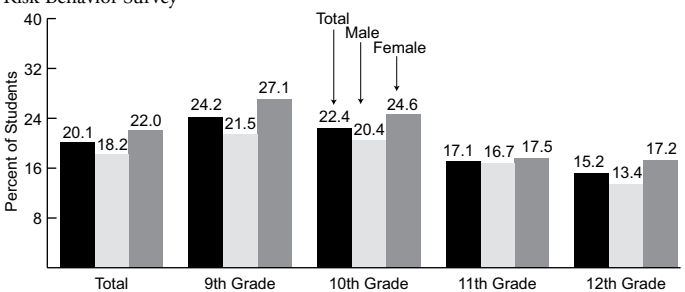
Being bullied has been associated with a wide range of both short- and long-term emotional, physical, and developmental consequences, including depression, anxiety, headaches, sleeping problems, stomach ailments, and decreased academic achievement. Children who bully are also more likely to engage in violent and risky behaviors, such as drug and alcohol use and early sexual activity. Even children who witness bullying can be negatively affected. Cyberbullying, or bullying that takes place using electronic technology, is different from other types of bullying in that it can happen at any time, messages and images can be posted anonymously and distributed quickly, and can be very difficult to delete after posting.[71]

In 2011, 20.1 percent of high school students reported that they had been bullied on school property in the past year. The likelihood of a child being bullied varied by a number of factors including sex and grade level. Females were more likely than males to have been bullied overall (22.0 percent versus 18.2 percent) while 24.2 percent of 9th graders reported being bullied compared to 15.2 percent of 12th graders.

Approximately one in six (16.2 percent) of high school students reported having been electronically bullied through email, chat rooms, instant messaging, Web sites or texting in the prior 12 months. Females were approximately twice as likely as males to have been electronically bullied at all grade levels (data not shown). Females were also more likely than males to have been electronically bullied across all racial and ethnic groups for whom race- and sex-specific data are available.

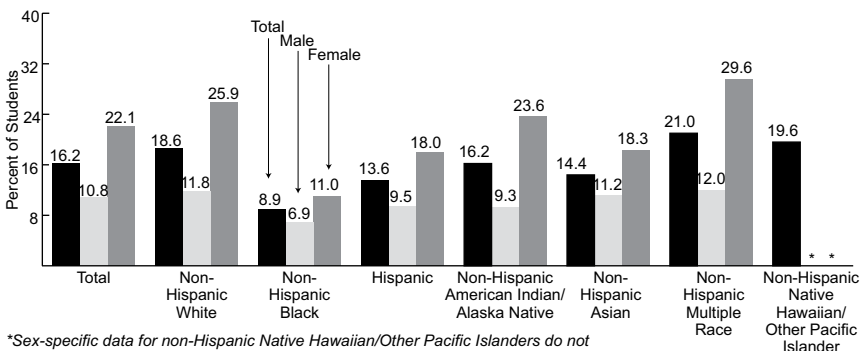
High School Students Who Were Bullied on School Property in the Past Year, by Sex and Grade, 2011

Source (II.19): Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey



High School Students Who Were Electronically Bullied in the Past Year, by Sex and Race/Ethnicity, 2011

Source (II.19): Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey



**Sex-specific data for non-Hispanic Native Hawaiian/Other Pacific Islanders do not meet standards for reliability or precision.*

CIGARETTE SMOKING

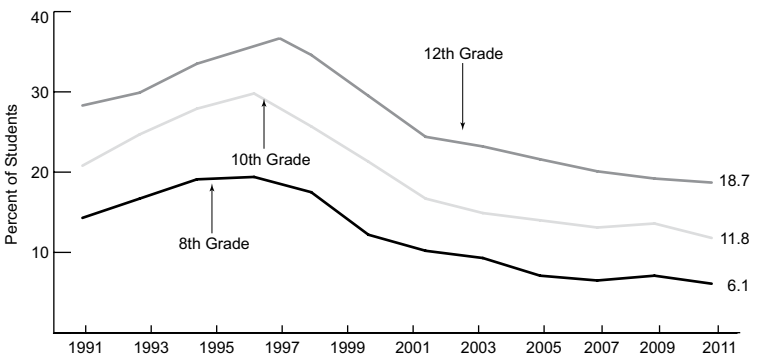
In 2012, a report by the Surgeon General found that the majority of cigarette use begins in adolescence or young adulthood and reported that, "of every three young smokers, only one will quit, and one of those remaining smokers will die from tobacco-related causes."[72]

The percent of teens who report smoking in the past month began a rapid increase in the early 1990s, with the rates among 8th and 10th grade students reaching a peak in 1996 (at 21.0 and 30.4 percent, respectively), and the rate among 12th grade students peaking a year later (36.5 percent). After years of steady progress, declines in the use of cigarettes by adolescents and young adults have decelerated. In 2009, cigarette smoking among adolescents decreased to 12.7 percent, according to the annual Monitoring the Future study.[73] Between 2009 and 2010, the overall percentage of high school students who reported smoking cigarettes in the past 30 days rose from 12.7 percent in 2009 to 12.8 percent, but this change was not statistically significant. In 2011, declines in past-month smoking occurred among students in all three grades to 6.1 percent of 8th, 11.8 percent of 10th and 18.7 percent of 12th grade students. The decline between 2010 and 2011 was statistically significant for 10th grade students only.

Despite a population-wide decline, certain subgroups of adolescents remain significantly more likely to smoke than their peers. Students who plan to complete a four-year college education are less than half as likely to smoke than students who either do not plan to attend college or plan to attend college for less than four years. This difference exists at each grade level. With regard to race and ethnicity, non-Hispanic White students are the most likely to report smoking in the past month, followed by Hispanic students (data not shown).

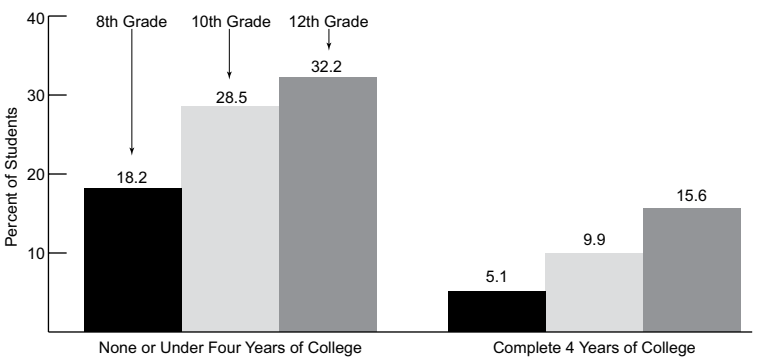
Cigarette Use Among Students in the Past 30 Days, by Grade, 1991–2011

Source (II.21): National Institutes of Health, National Institute on Drug Abuse, Monitoring the Future Study



Cigarette Use Among Students in the Past 30 Days, by College Plans, 2010–2011

Source (II.21): National Institutes of Health, National Institute on Drug Abuse, Monitoring the Future Study



SUBSTANCE ABUSE

In 2010, the percent of adolescents aged 12–17 years who reported using illicit drugs in the past month was 10.1, similar to the 2009 estimate (10.0). Illicit drug use varied by age, with 4.0 percent of youth aged 12–13 years reporting drug use in the past month, compared to 9.3 percent of youth aged 14–15 years and 16.6 percent of youth aged 16–17 years (data not shown). There was also variation by race/ethnicity, with rates ranging from 4.1 percent among non-Hispanic Asian youth to 12.7 percent among non-Hispanic American Indian/Alaska Native youth. Rates for non-Hispanic White, non-Hispanic Black, and Hispanic youth were 9.7 percent, 10.8 percent, and 11.8 percent, respectively (data not shown).

Marijuana is consistently the most commonly used illicit drug among adolescents overall, with 7.4 percent reporting past-month use in 2010. This was followed by nonmedical use of prescription-type psychotherapeutics, such as pain relievers, tranquilizers, stimulants, and sedatives (3.0 percent). Differences by age were observed, however, with younger adolescents aged 12-13 years being more likely to report non-medical use of psychotherapeutic drugs.

Illicit drug use is associated with other health risk behaviors. In 2010, 52.9 percent of adolescents who reported cigarette use in the past month also reported illicit drug use, compared to only 6.2 percent of adolescents who did not report smoking. Adolescents who reported alcohol use in the past month were also more likely to use illicit drugs than adolescents who did not report alcohol use: 70.6 percent of heavy drinkers (i.e., adolescents who consumed five or more drinks on the same occasion on each of 5 or more days in the past 30 days), also used illicit drugs.

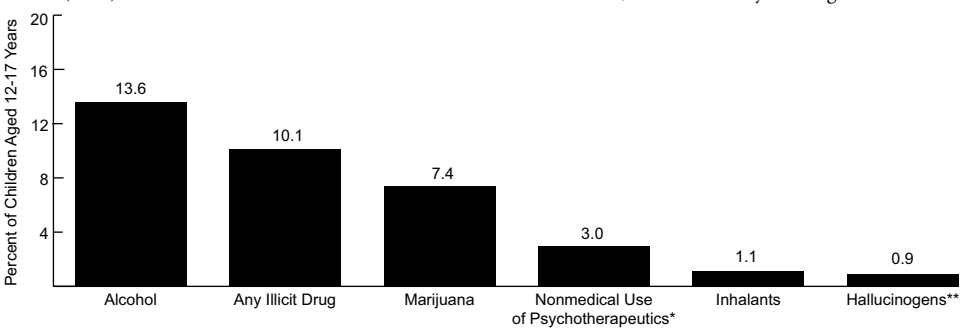
Alcohol continues to be the most commonly used drug among adolescents, with 13.6 percent reporting past-month use in 2010. The prevalence of alcohol use among males and females was similar: 13.7 and 13.5 percent, respectively). Greater variation was evident by race/ethnicity, with rates ranging from 4.8 percent among Asian youth to 14.9 percent of non-Hispanic White youth (data not shown).

In 2010, 30.1 percent of adolescents perceived smoking marijuana once a month to be a great risk, while 49.5 percent perceived the same risk regarding cocaine use. Smoking one or more packs of cigarettes a day was considered a great risk by 65.5 percent of adolescents. Drinking five or more drinks once or twice per week was considered a great risk by 40.8 percent of adolescents (data not shown).

While 14.3 percent of adolescents were approached by someone selling drugs in the past month, nearly 50 percent reported that marijuana would be fairly or very easy to obtain; 22.1 percent reported the same for crack, 19.0 percent for cocaine, 12.9 percent for LSD, and 11.6 percent for heroin (data not shown).

Past Month Drug Use Among Adolescents Aged 12-17 Years, by Drug Type, 2010

Source (II.22): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



**Includes non-medical use of pain relievers, sedatives, stimulants, and tranquilizers; does not include over-the-counter substances.*
***Includes LSD, PCP, and Ecstasy.*

ADOLESCENT MORTALITY

In 2010, the latest year for which data are available, there were 10,887 deaths among adolescents aged 15–19 years, representing a rate of 49.4 per 100,000.[74] The rate of adolescent mortality declined by 7.7 percent from the previous year and 26.4 percent from 2000. This decline may be largely attributable to decreases in unintentional injury,[75] which remains the leading cause of adolescent death, followed by homicide, suicide, cancer, and heart disease.

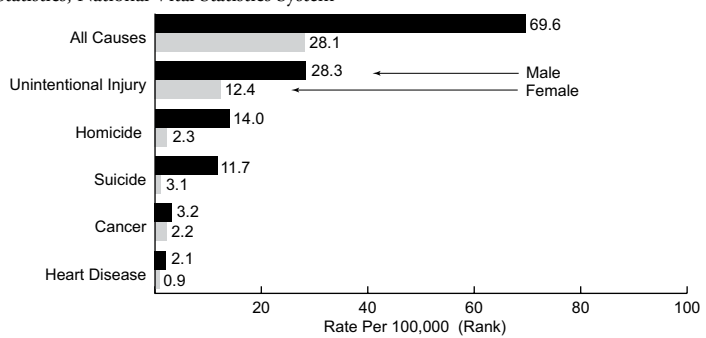
The mortality rate of adolescent males aged 15–19 was more than twice that of females in 2010 (69.6 versus 28.1 per 100,000, respectively). This disparity is largely due to higher rates of unintentional injury, homicide, and suicide death among male adolescents. For example, homicide death rates were more than five times higher among males than females (14.0 versus 2.3 per 100,000). Homicide and suicide, when combined, account for almost as many deaths as unintentional injuries among male adolescents.

Racial and ethnic disparities also exist, with non-Hispanic American Indian/Alaska Native adolescents experiencing the highest rate of mortality among both males and females (138.6 and 57.6 per 100,000, respectively). Non-Hispanic Black males had the second highest rate of adolescent mortality (108.0 per 100,000) while non-Hispanic Asian/Pacific Islander females had the lowest rate (16.0 per 100,000). Unintentional injury was the leading cause of death among male and female adolescents of all racial/ethnic groups, except non-Hispanic Black males, for whom homicide was the leading cause of death (data not shown).

The primary cause of unintentional injury death was motor vehicle crashes (63.8 percent), followed by poisoning (16.4 percent) which is the only unintentional injury mechanism to increase over the past decade.[74,75] Poisoning includes prescription drug overdoses. Homicide deaths to adolescents were predominantly attributable to firearms (84.8 percent) while both firearms and suffocation were leading mechanisms of suicide death (40.3 and 45.3 percent, respectively; data not shown).[74]

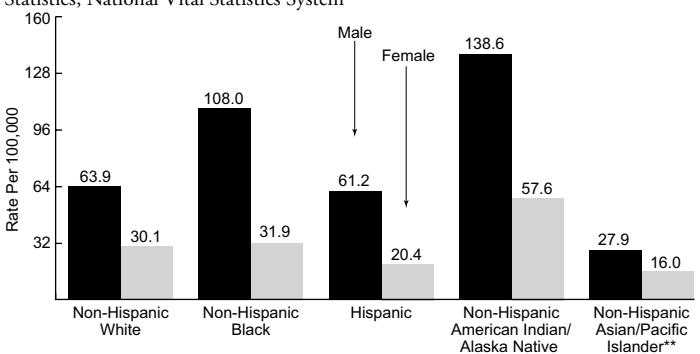
Mortality Rates Among Adolescents Aged 15–19 Years, by Selected Leading Cause and Sex, 2010

Source (II.23): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



Mortality Rates Among Adolescents Aged 15–19 Years, by Race/Ethnicity* and Sex, 2010

Source (II.23): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



**Multiple-race data were bridged to single-race categories **Separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available.*

CHILDREN WITH SPECIAL HEALTH CARE NEEDS

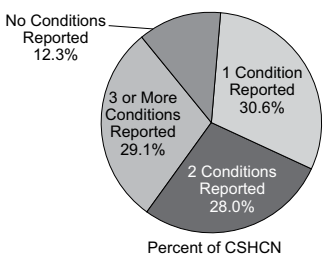
The National Survey of Children with Special Health Care Needs (NS-CSHCN) asks parents about the types of chronic health conditions experienced by their children and how these conditions impact both the child and their family. These chronic conditions include developmental difficulties such as Down Syndrome and Autism Spectrum Disorder, seizure disorders such as epilepsy, mental health disorders such as depression and anxiety, and other conditions which have lasted, or are expected to last, 12 or more months. Among CSCHN, the conditions (from a list of 20 specific conditions) that children are most commonly reported to have are allergies, asthma, ADD/ADHD, and developmental delay. Co-morbidities are common, as more than half of all CSHCN experience more than one chronic condition. In the 2009–10 NS-CSHCN, 28.0 percent of all CSHCN reported 2 conditions, while an additional 29.1 percent of CSHCN reported 3 or more conditions.

The impact of these conditions on the child varies by a number of factors. In general, CSHCN are as likely to participate in organized activities, volunteer and work for pay as those children without special health care needs; however, children with functional limitations experience additional barriers to participation.[76] The parents of over one-third of CSHCN reported that in the past 12 months their child's condition never affected the child's ability to do the things that other children could do. A consistent barrier, where the condition always limited the child, was reported for 15.3 percent of CSHCN.

CSCHN who only require prescription medication to care for their condition are the least likely to experience a great deal of difficulty doing the things that other children can do (5.1 percent) as compared to children who require additional services (13.6 percent) or who have a functional limitation (40.9 percent). Only 10.7 percent of CSHCN who have a functional limitation experience "very little" difficulty in participation.

Number of Health Conditions* Reported for CSHCN, 2009–10

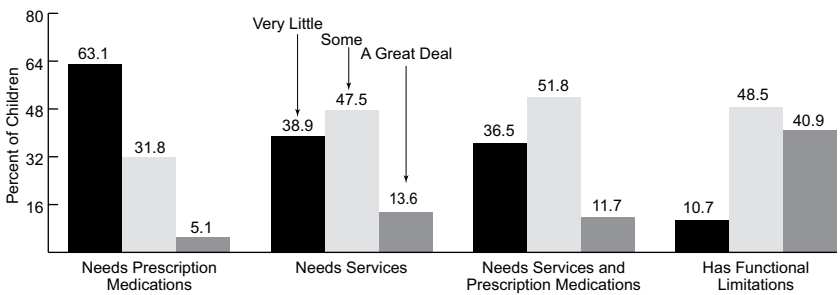
Source (II.24): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children with Special Health Care Needs



**Of 20 addressed in the survey. Because CSHCN status is determined by the presence of health-related impacts rather than a specific diagnosis, children may have a special health care need without having been diagnosed with one of the 20 conditions parents were asked about on the survey.*

Degree to Which Special Health Care Need Affects the Child's Ability to Do Things, by Type of Special Health Care Need, 2009–10

Source (II.24): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children with Special Health Care Needs



HEALTH SERVICES FINANCING AND UTILIZATION

The availability of and access to quality health care directly affects the health of the population. This is especially true of those at high risk due to low socioeconomic status or chronic medical conditions.

Children may receive health coverage through a number of sources, including private insurance, either employer-based or purchased directly, and public programs, such as Medicaid or the Children's Health Insurance Program (CHIP). Eligibility for public programs is based on a family's income compared to the Federal poverty level. Nearly every state has CHIP programs that help to expand coverage to children who would otherwise be uninsured. Despite the progress achieved through public programs, approximately 7.3 million children remain uninsured in the United States.

This section presents data on the health insurance status and utilization of health services within the maternal and child population. Data are summarized by source of payment, type of care, and place of service delivery. This section also provides the latest data on the health care needs and financing of care for children with special health care needs.

HEALTH CARE FINANCING

In 2010, approximately 7.3 million U.S. children under 18 years of age had no health insurance coverage, representing 9.8 percent of the population. This was not statistically different from the previous year (9.7 percent). More than one-third of children were insured through public programs[77] such as Medicaid, the Children's Health Insurance Program, and military health insurance (37.9 percent), and 59.6 percent were covered by private insurance.

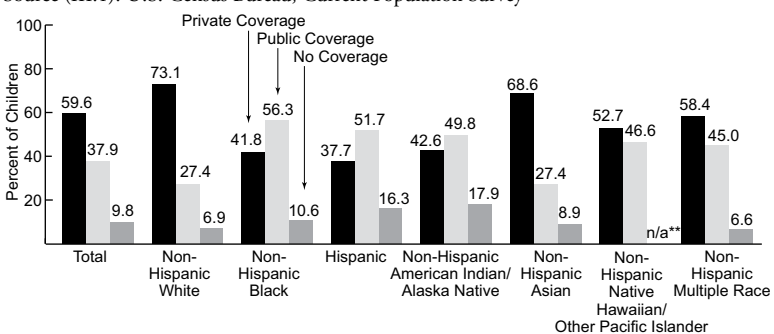
Children's insurance status varies by race and ethnicity. In 2010, 73.1 percent and 68.6 percent of non-Hispanic White and Asian children, respectively, had private coverage, while the same was true for only 52.7 percent of non-Hispanic Native Hawaiian and Other Pacific Islander children, 42.6 percent of non-Hispanic American Indian/Alaska Native children, 41.8 percent of non-Hispanic Black children, and 37.7 percent of Hispanic children. Over half of non-Hispanic Black and Hispanic children were publicly insured (56.3 percent and 51.7 percent, respectively) followed by 49.8 percent of non-Hispanic American Indian/Alaska Native children.

As family income increases, private health insurance coverage among children rises and the proportions of children with public coverage and no coverage decrease. In 2010, children living in households with incomes below 100 percent of the U.S. Census Bureau's poverty threshold ($22,314 for a family of four in 2010) were most likely to have public coverage (73.7 percent) or to be uninsured (15.4 percent); a similar proportion of children living in near-poor households (between 100-199 percent of the poverty threshold) were also uninsured (14.1 percent). Children with family incomes of 400 percent or more of the poverty threshold were most likely to have private coverage (92.2 percent), and least likely to have public coverage (10.5 percent) or to be uninsured (3.5 percent).

In 2009, the Children's Health Insurance Program was reauthorized and states were given incentives to provide coverage to additional children. Although designed to cover children with family incomes below 200 percent of the poverty level, many States have expanded eligibility to children with higher family incomes.

Health Insurance Coverage Among Children Under Age 18, by Race/Ethnicity and Type of Coverage,* 2010

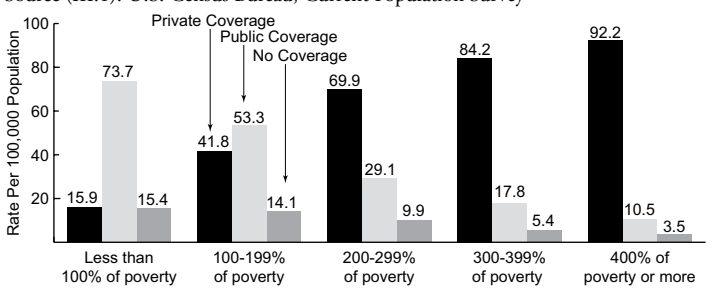
Source (III.1): U.S. Census Bureau, Current Population Survey



*Totals equal more than 100 percent because children may have more than one source of coverage.
**Due to small sample size, estimate did not meet criteria for reliability.

Health Insurance Coverage Among Children Under Age 18, by Poverty Status* and Type of Coverage, 2010**

Source (III.1): U.S. Census Bureau, Current Population Survey



*The U.S. Census Bureau's poverty threshold for a family of four was $22,314 in 2010.
**Totals equal more than 100 percent because children may have more than one source of coverage.

HEALTH CARE FINANCING FOR CHILDREN WITH SPECIAL HEALTH CARE NEEDS

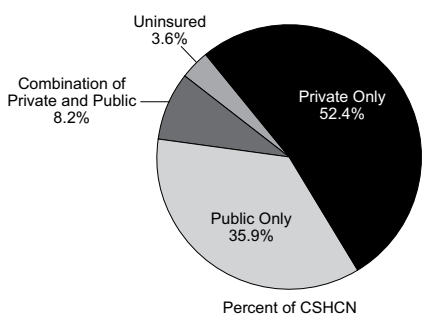
The consistency and adequacy of health insurance can have a significant impact on children's access to needed health care services. This is particularly true for children with special health care needs (CSHCN). In 2009–10, the National Survey of Children with Special Health Care Needs asked parents whether their child had insurance coverage in the past 12 months and, if so, what kind they had. Overall, 90.7 percent of CSHCN were insured for all of the previous 12 months, while the remaining 9.3 percent were uninsured for all or some part of the year (data not shown).

At the time of the interview, 96.5 percent of CSHCN were reported to have some type of insurance: 52.4 percent had private insurance and 35.9 percent had public insurance, 8.2 percent had both private and public insurance, while 3.6 percent were uninsured at the time of the interview. The proportion of CSHCN with private and public insurance coverage changed significantly over the last decade. In 2001, 64.7 percent of CSHCN had private and 21.7 percent had public coverage. This reflects a decline of over 20 percent in the proportion of CSHCN with private coverage and a nearly 60 percent increase in the proportion with public coverage over the decade (data not shown).

CSHCN without health insurance are less likely to receive the health care they need than those with insurance. CSHCN without current health insurance coverage were less likely than those with insurance to have a usual source of sick care (85.6 percent versus 92.9 percent), to receive all needed dental care (79.2 versus 95.1 percent) and prescription medications (84.1 percent versus 97.9 percent) and to receive all needed mental health services (85.1 versus 94.7 percent).

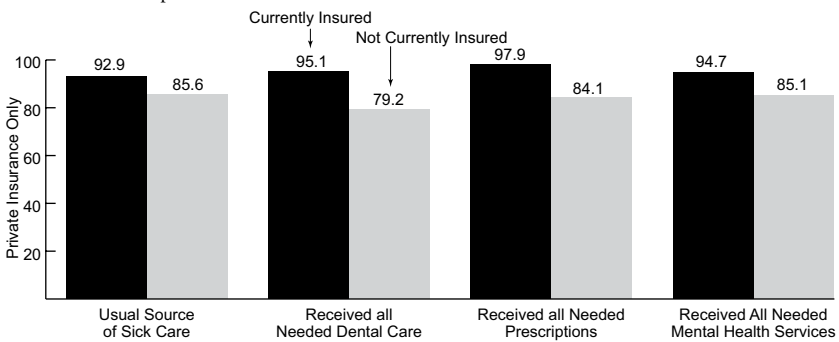
Health Insurance Coverage Among CSHCN at Time of Survey, 2009–10

Source (III.2): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children with Special Health Care Needs



Access to Services, by Health Insurance Coverage, Among CSHCN, 2009–10

Source (III.3): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children with Special Health Care Needs



VACCINATION COVERAGE

Vaccination is one of the greatest public health achievements of the 20th century, resulting in dramatic declines in morbidity and mortality for many infectious diseases.[78] Childhood vaccination in particular is considered among the most cost-effective preventive services available, as it averts a potential lifetime lost to death and disability.[79]

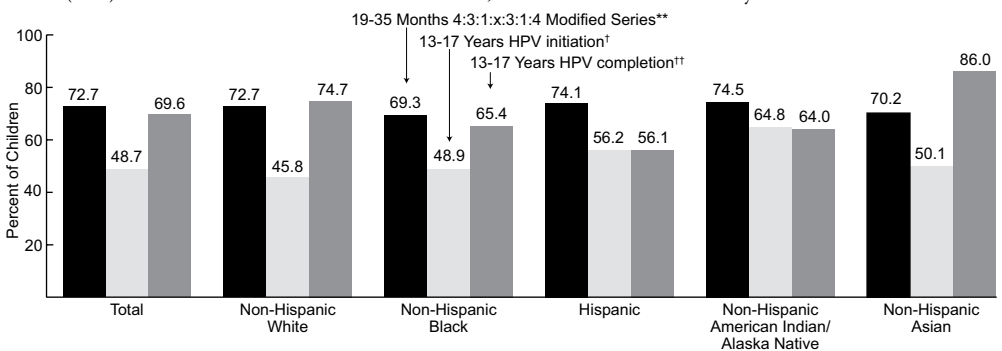
Currently, there are 12 different vaccines recommended by the Centers for Disease Control and Prevention from birth through age 18, many of which require multiple doses for effectiveness as well as boosters to sustain immunity—see the following page for a summary of the vaccination schedule.

In 2010, 72.7 percent of children 19–35 months of age received each of six vaccines in a modified series of recommended vaccines (4:3:1:3:X:1:4). This series includes four doses of diphtheria, tetanus, and acellular pertussis vaccine (DTaP/DT/DTP); three doses of poliovirus vaccine; one dose of measles, mumps, and rubella vaccine (MMR); three doses of the hepatitis B vaccine (HepB); one dose of the varicella (chicken pox) vaccine; and four doses of the pneumococcal conjugate vaccine (PCV). Because of changes in measurement of the Haemophilus influenzae type b (Hib) vaccine and the vaccine shortage that occurred during December 2007–June 2009, coverage estimates included here are based on the modified series that excludes the Hib vaccine. Although the 2010 level of vaccine series coverage is below the Healthy People 2020 objective of 80 percent, there were no significant disparities by race and ethnicity.

The human papillomavirus (HPV) vaccine protects against certain strains of HPV that can cause cervical cancer and genital warts and was first recommended in 2006 for females aged 11–12 years and more recently recommended for males of the same age, with catch-up vaccination at later ages for females (13–26 years) and males (13–21 years) who have not completed the 3-dose series.[80] In 2010, only 48.7 percent of females aged 13–17 years had received at least 1 of the 3 necessary doses of HPV vaccine, among whom about two-thirds with adequate time to complete the series had done so (69.6 percent). Hispanic and non-Hispanic American Indian/Alaska Native females were significantly more likely to have initiated HPV vaccination than non-Hispanic White females (56.2 and 64.8 percent versus 45.8 percent, respectively). However, compared to non-Hispanic White females, Hispanic and non-Hispanic Black females were less likely to complete the vaccine series (74.7 percent versus 56.1 and 65.4 percent, respectively), while non-Hispanic Asian females were more likely to do so (86.0 percent). A new requirement of health plans to monitor the proportion of females completing 3 doses by 13 years of age may help to increase HPV vaccination.[81]

Receipt of Selected Vaccinations Among Children, by Recommended Age Group and Race/Ethnicity,* 2010

Source (III.4): Centers for Disease Control and Prevention, National Immunization Survey



*The sample of Native Hawaiian/Pacific Islanders was too small to produce reliable results. **4+ DTaP, 3+ Polio, 1+ MMR, 3+ HepB, 1+ Varicella, 4+ PCV; excludes Hib, due to the 2007-2009 shortage. †1+ HPV among females only.
††3+ doses among females who had at least one HPV dose and at least 24 weeks between the first dose and time of the survey.

Recommended Routine Immunizations for Children from Birth Through 18 Years Old, 2012

Source (III.5): Department of Health and Human Services, Centers for Disease Control and Prevention

Age	HepB Hepatitis B	DTaP/Tdap* Diphtheria, tetanus, pertussis (whooping cough	Hib Haemophilus influenzae type b	IPV Polio	PCV Pneumo-coccal conjugate	RV Rotavirus	MMR Measles, mumps, rubella	Varicella Chickenpox	HepA** Hepatitis A	HPV† Human papilloma-virus	MCV†† Meningo-coccal conjugate	Flu‡ Influenza
Birth	✓											
2 months	✓ (1-2 mos)	✓	✓	✓	✓	✓						
4 months		✓	✓	✓	✓							
6 months	✓	✓	✓‡	✓	✓	✓‡						✓ Annual dose each Fall or Winter
12 months			✓		✓		✓	✓	✓✓			
15 months		✓										
18 months												
19-23 months												
4-6 years		✓		✓			✓	✓				
7-10 years												
11-12 years		✓ Tdap								✓✓✓	✓	
13-15 years												
16-18 years											✓	

Note: If your child misses a shot, you don't need to start over, just go back to your child's doctor for the next shot. The doctor will keep your child up-to-date on vaccinations. There are certain health conditions and other situations that might cause some of these vaccines to be recommended at other than routine ages. Talk with your health care provider for more information.

**Tdap vaccine is a combination vaccine that is recommended at age 11 or 12 to protect against tetanus, diphtheria, and pertussis. If your child has not received any or all of the DTaP vaccine series, or if you don't know if your child have received these shots, you child needs a single dose of Tdap when they are 7–10 years old. Talk to your child's health care provider to find out if they need additional catch-up vaccines.*

***Two doses of HepA vaccine are needed for lasting protection. The first dose of HepA vaccine should be given between 12 months and 23 months of age. The second dose should be given 6 to 18 months later.*

†All 11 or 12 year olds—both girls and boys—should receive 3 doses of HPV vaccine to protect against HPV-related disease. Either HPV vaccine (Cervarix® or Gardasil®) can be given to girls and young women; only one HPV vaccine (Gardasil®) can be given to boys and young men.

††Everyone 6 months of age and older—including children, teens, and adults—should get a flu vaccine each fall or winter. Children 6 months through 8 years of age may need two doses, at least 4 weeks apart. Ask your health care provider for more information.

‡6-month doses of Hib and RV may not be necessary depending on the brand of vaccine used. Your health care provider will know how many doses to administer.

For more information, call toll free 1-800-CDC-INFO (1-800-232-4636) or visit http://www.cdc.gov/vaccines

MENTAL HEALTH TREATMENT

In 2010, 2.9 million, or 12.2 percent, of adolescents aged 12 to 17 received past-year treatment or counseling for problems with emotions or behavior (not related to drug or alcohol use) in a specialty mental health setting, including both inpatient and outpatient care (data not shown). Inpatient care includes treatment or counseling from an overnight or longer stay in a hospital, residential treatment center, or foster care or therapeutic foster care home, and outpatient care includes services from a private therapist, psychologist, psychiatrist, social worker, or counselor; mental health clinic or center; partial day hospital or day treatment program; or in-home therapist, counselor, or family preservation worker.

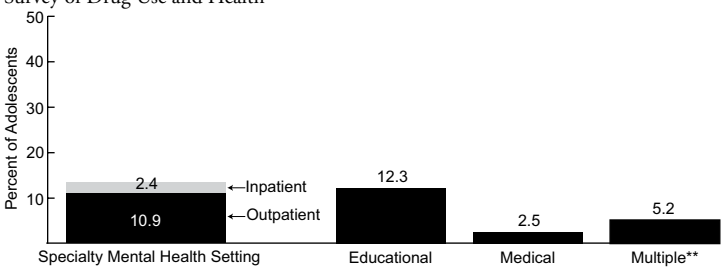
A similar proportion of adolescents received mental health services in an educational setting, including counseling from a school social worker, psychologist, or counselor (12.3 percent), while 2.5 percent received services from a pediatrician or other family doctor in a medical setting; less than 1 percent of adolescents received mental health services in a juvenile justice setting in the past 12 months. Approximately 5 percent of adolescents received mental health services in both a specialty mental health setting and either an educational or a medical setting.

A greater proportion of females received specialty mental health services (14.4 percent) than males (10.1 percent) (data not shown). In general, few racial or ethnic differences in service site for past-year treatment were observed. However, non-Hispanic Asian children were least likely to receive services in a specialty mental health setting (3.5 percent) while non-Hispanic Black children were more likely to receive services in an educational setting (15.5 percent) than non-Hispanic White and Hispanic children (11.6 and 11.8 percent, respectively; data not shown).

The most common reported reason for service use was feeling depressed. This was the case for nearly half of adolescents who received services in a specialty mental health setting, and over one-third of those who received services in an educational setting. Overall, reasons for treatment or counseling varied by service site. For example, problems with home/family was reported as the reason for seeking services by 30.5 percent of those seeking care in a specialty mental health setting compared to 20.5 and 10.7 percent of those treated in educational and medical settings, respectively.

Past-Year Mental Health Service Use Among Adolescents Aged 12-17,* by Service Site, 2010

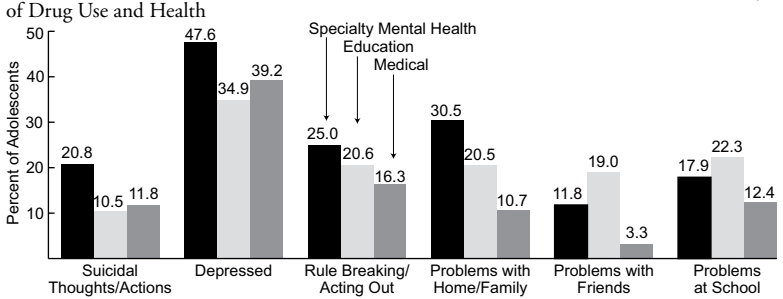
Source (III.6): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



**Among adolescents who received past-year mental health treatment or counseling for problems with emotions or behavior. **Inpatient or Outpatient services in addition to services received in either an educational or medical setting.*

Selected Reasons* for Mental Health Service Use Among Adolescents Aged 12-17, by Service Site, 2010**

Source (III.6): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



**Respondents could report multiple reasons. **Among adolescents who received past-year mental health treatment or counseling.*

DENTAL CARE

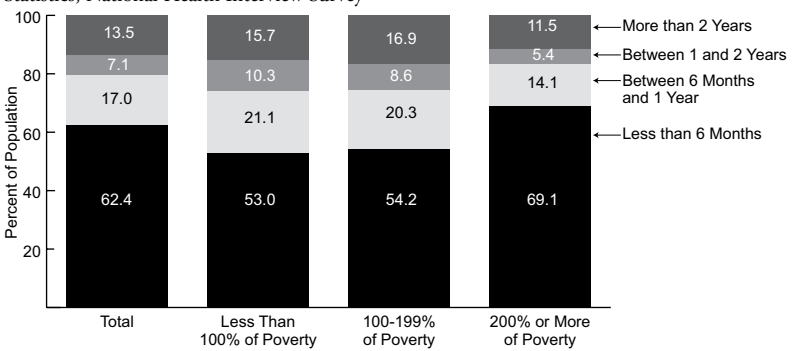
According to the Centers for Disease Control and Prevention, dental caries (tooth decay) is the most common chronic infectious disease among children in the United States.[82] Untreated tooth decay causes pain and infections, which may affect children's ability to eat, speak, play, and learn. Tooth decay, however, is preventable with proper dental care for cleaning, brushing and flossing instruction, sealants, and fluoride treatment. For this reason, the American Academy of Pediatric Dentistry recommends that children have their first dental checkup at the eruption of the first tooth or by age 1,[83] with two visits per year thereafter.[84]

In 2010, 62.4 percent of children aged 2–17 years received dental care in the past 6 months, while 13.5 percent had not received such care in more than 2 years. Receipt of dental care varied by a number of factors, including poverty and insurance status. Children living in households with incomes at or below 100 or 200 percent of the poverty level were less likely than children living in households with incomes above 200 percent of the poverty threshold to have received dental care in the past 6 months (53.0 and 54.2 percent, respectively, compared to 69.1 percent). Uninsured children were about half as likely to have received a dental visit in the past 6 months (30.8 percent) as those with public (58.8 percent) or private insurance (68.9 percent; data not shown).

Similar patterns were observed for unmet dental care needs. Overall, 4.3 million or 6.6 percent of children had unmet dental care needs in 2010. However, the proportion of children with unmet needs was substantially higher among those who were uninsured (26.4 percent) compared to those with either private (4.1 percent) or public (6.1 percent) insurance. With respect to poverty, children living in households below 100 or between 100 and 199 percent of the poverty level were at least twice as likely to have an unmet dental care need in the past year as children at 200 percent or more of poverty (8.7 and 10.4 percent, respectively, compared to 4.3 percent, data not shown).

Time Since Last Dental Visit Among Children Aged 2–17 Years,* by Poverty Status, 2010**

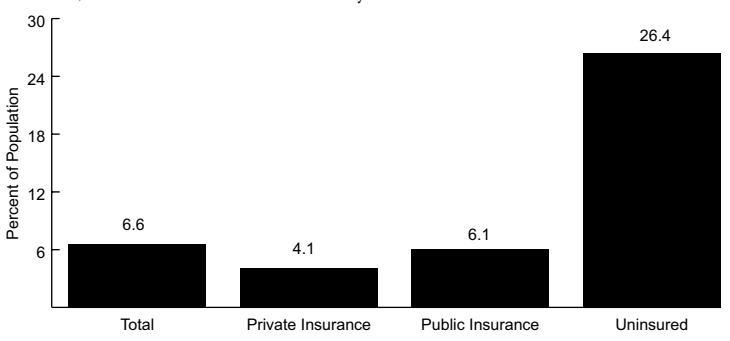
Source (III.7): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



**All estimates are age-adjusted and may not total to 100 due to rounding.*
***Poverty level, defined by the U.S. Census Bureau, was $22,314 for a family of four in 2010.*

Unmet Dental Need* in the Past Year Among Children Aged 2–17 Years, by Insurance Type and Status, 2010

Source (III.7): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



**Based on parent report that services were needed but were not affordable; all estimates are age-adjusted.*

WELL-CHILD VISITS

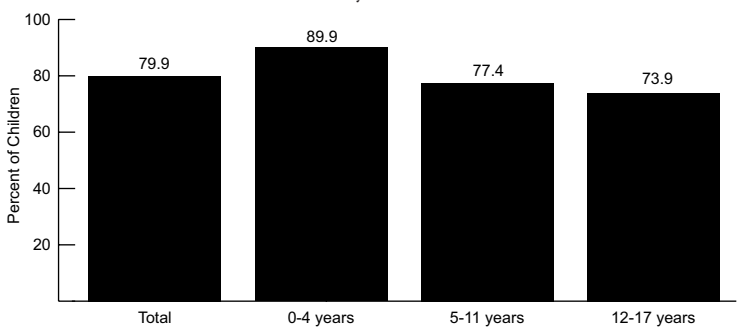
In 2010, 79.9 percent of children under 18 years of age were reported by their parents to have had a preventive, or "well-child," medical visit in the past year when they were not sick or injured. The American Academy of Pediatrics recommends that children have eight preventive health care visits in their first year, three in their second year, and at least one per year from age 3 through adolescence.[85] Well-child visits offer an opportunity not only to monitor children's health and provide immunizations, but also to assess a child's behavior and development, discuss nutrition, and answer parents' questions.

The proportion of children receiving well-child visits declines with age. In 2010, 89.9 percent of children 4 years of age and younger had received a preventive visit in the past year, compared to 77.4 percent of children 5–11 years of age and 73.9 percent of children 12–17 years of age. Among the oldest adolescents, the rate was even lower (69.0 percent).

Receipt of preventive medical care also varies by several other factors, including type of insurance and race and ethnicity. In 2010, only 55.6 percent of uninsured children had received a well-child visit in the past year, compared to about 80 percent of those with public or private insurance (79.4 and 83.3, respectively; data not shown). With respect to race and ethnicity, non-Hispanic children of more than one race and non-Hispanic Black children were most likely to have received a well-child visit in the past year (87.1 and 83.3 percent, respectively), followed by non-Hispanic White (80.5 percent), non-Hispanic Asian (76.4), and Hispanic children (75.4). Non-Hispanic American Indian/Alaskan Native children had the lowest reported rate of preventive care in the past year (63.2 percent).

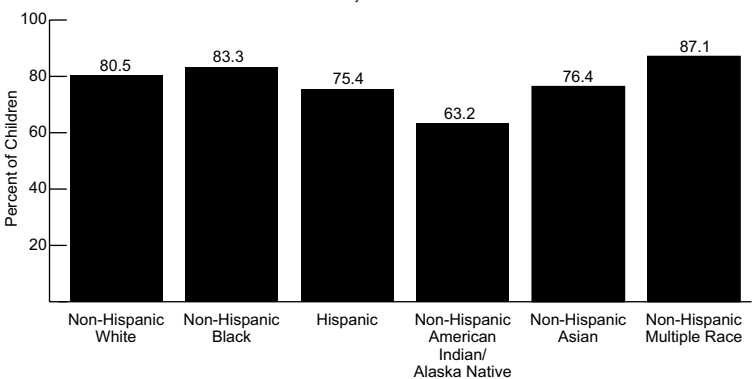
Receipt of Preventive Health Care in the Past Year Among Children Under Age 18, by Age, 2010

Source (III.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



Receipt of Preventive Health Care in the Past Year Among Children Under Age 18,* by Race/Ethnicity, 2010**

Source (III.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



**All estimates are age-adjusted. **The sample of Native Hawaiian/Pacific Islander children was too small to produce reliable results.*

HEALTH CARE VISITS

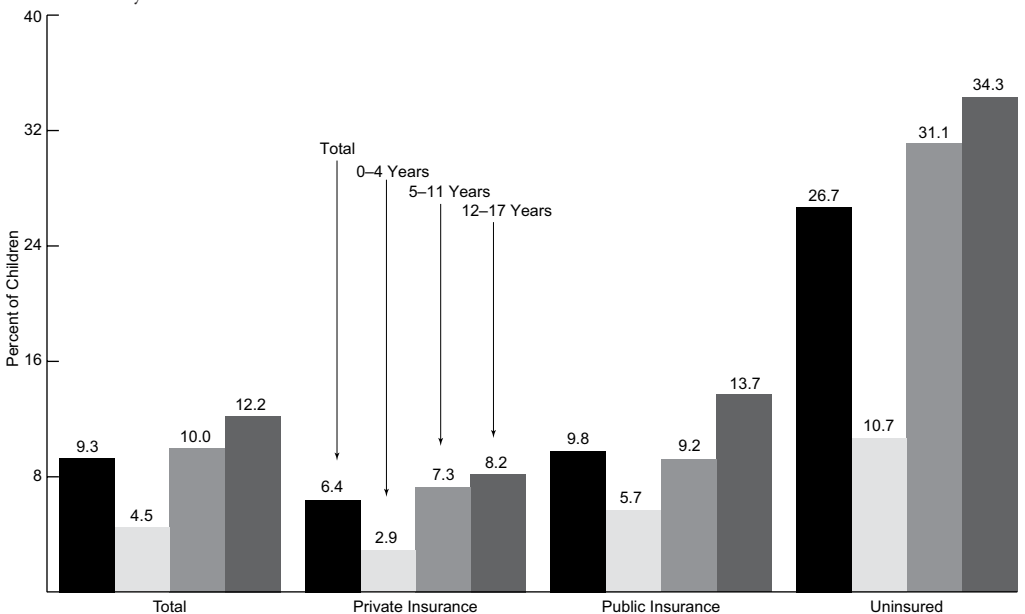
In 2010, 9.3 percent of children under 18 years of age had not seen a physician or other health care professional in the past year for either sick or routine care (not including overnight hospitalization, emergency department visits, home health care, or dental care). Older children were more likely than younger children to go 12 months without seeing a health care provider. More than 12 percent of children aged 12–17 years (12.2 percent) had not seen a health care provider in the past year, compared to only 4.5 percent of children under 5 years of age.

Health care visits also vary by insurance type and status. In 2010, more than one in four children without health insurance (26.7 percent) had not seen a physician or other health professional in the past year, compared to 9.8 percent with public insurance and 6.4 percent of privately insured children. Across all age groups, uninsured children were most likely to have gone without a health visit in the past year, while privately insured children were the least likely. Across all insurance groups, older children were more likely than those less than 5 years old to have not seen a health care professional. Thus, having no past-year visit ranged from 2.9 percent among privately insured children under 5 years of age to 34.3 percent among uninsured children aged 12–17 years—a ten-fold difference.

The proportion of children going without health care also varies by poverty level and race and ethnicity. In 2010, children living in households with incomes below the poverty level or between 100–199 percent of poverty were about twice as likely as those at 200 percent or more of poverty to have not seen a physician or other health professional in the past year (12.5 and 13.3 percent, respectively, compared to 6.5 percent). About 7 percent of non-Hispanic White children lacked a health care visit (6.8 percent) compared to 10–14 percent of children of other racial/ethnic groups (data not shown).

No Contact with a Health Care Professional* in the Past Year Among Children Under Age 18, by Age and Insurance Type and Status, 2010

Source (III.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



Does not include overnight hospitalizations, emergency department visits, home health care, and dental care; all total estimates are age-adjusted.

USUAL PLACE FOR SICK CARE

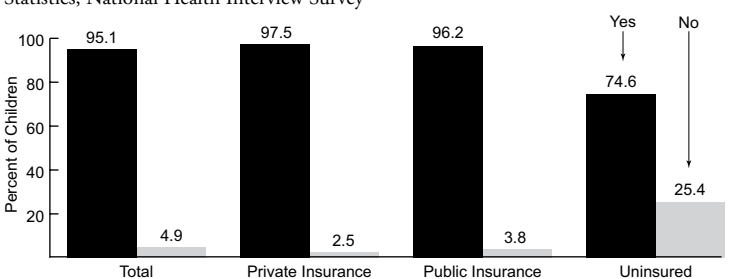
Having a usual place or source of health care is an important indicator of care continuity that has been linked to improvements in care quality, preventive care utilization, and health status.[86] In 2010, the majority of children were reported by their parents to have a usual place of health care when they are sick or need of health advice (95.1 percent); however, about a quarter of uninsured children (25.4 percent) did not have a usual place of care.

Receiving regular primary and preventive care in a doctor's office or clinic can help to avoid unnecessary hospitalizations and emergency room visits. In 2010, among children with a usual source of care, 74.3 percent of children used a doctor's office or health maintenance organization (HMO) as their usual place of care, 23.6 percent used a clinic or health center, and 2.1 percent usually used other places, including emergency rooms and hospital outpatient departments; however, this varied greatly by poverty status. Children with household incomes below the poverty level were more than three times as likely to use a clinic or health center as a usual source of care than children living at 400 percent or more of poverty (38.4 versus 12.3 percent). Conversely, 86.9 percent of children living at 400 percent or more of poverty used a doctor's office or HMO as a usual source of care, compared to 58.5 percent of children living in households with incomes below the poverty threshold.

The location where children usually received care also varied by race and ethnicity and insurance type and status. Clinics and health centers were more likely to serve as a usual place of care for American Indian/Alaska Native (52.9 percent), Native Hawaiian/Other Pacific Islander (45.1 percent), and Hispanic children (39.0 percent) compared to about 25 percent or less of children of other racial/ethnic groups (data not shown). Despite being rare overall, about one-tenth (9.5 percent) of uninsured children usually relied on hospital emergency and outpatient departments and other sources of care.

Usual Place of Care* Among Children Under Age 18, by Insurance Type and Status, 2010

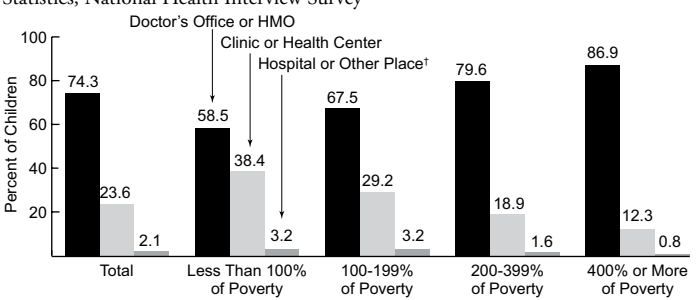
Source (III.7): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



Has a place where the child is usually taken when sick or in need of health advice; all estimates are age-adjusted.

Location of Usual Place of Care* Among Children Under Age 18, by Poverty Status,** 2010

Source (III.8): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*The place where the child is usually taken when sick or in need of health advice; all estimates are age-adjusted; percentages may not total to 100 due to rounding. **Poverty level, defined by the U.S. Census Bureau, was $22,314 for a family of four in 2010. †Includes emergency room, hospital outpatient department, some other place, and not using one place most often.*

EMERGENCY DEPARTMENT UTILIZATION

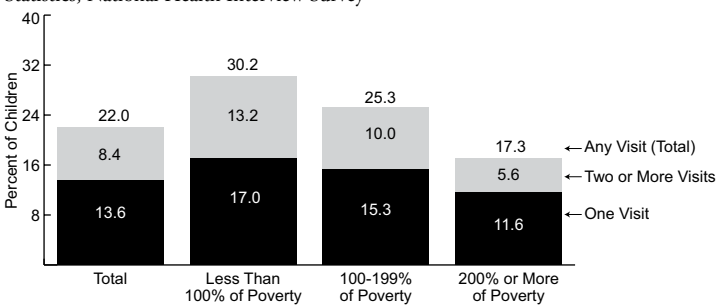
In 2010, 22.0 percent of children had at least one visit to a hospital emergency department (ED) in the past year and 8.4 percent had multiple visits. Children younger than 5 years of age were more likely to have had a past-year ED visit (28.1 percent) than children aged 5–11 years or 12–17 years (20.4 percent and 19.0 percent, respectively; data not shown).

Emergency department utilization also varies by poverty and race and ethnicity. In 2010, almost one-third of children living in households with incomes below the poverty level had visited an ED in the past year (30.2 percent), compared to 17.3 percent of children living in households at 200 percent or more of the poverty level. Children in poverty were more than twice as likely to have had multiple ED visits as non-poor children living at 200 percent or more of poverty (13.2 versus 5.6 percent, respectively). With respect to race and ethnicity, non-Hispanic Black and Hispanic children were most likely to have visited an ED (26.9 and 23.1 percent, respectively) while Asian children were least likely to have done so (14.9 percent). Compared to the overall average, Asian children had a similar proportion of multiple ED visits but a lower proportion of single visits, whereas non-Hispanic Black children had a higher proportion of both single and multiple visits.

According to the 2009 National Hospital Ambulatory Medical Care Survey, the most common reason for a visit to the emergency department among children under 15 years of age was fever (19.7 percent of visits), followed by cough (7.6 percent), and vomiting (4.5 percent).[86] The three most common primary diagnoses treated in ED visits among both males and females were acute upper respiratory infections (10.8 percent, combined), fever of unknown origin (6.6 percent, combined), and otitis media (middle ear infection) and Eustachian tube disorders (5.1 percent, combined), followed by unspecified viral and chlamydial infection for females (3.2 percent) and open wound of head (4.1 percent) for males. Asthma ranked as the seventh most common diagnosis for males (3.4 percent) compared to the thirteenth most common diagnosis for females (1.9 percent, data not shown).[86]

Visits to the Emergency Department in the Past Year Among Children Under Age 18,* by Poverty Status, 2010**

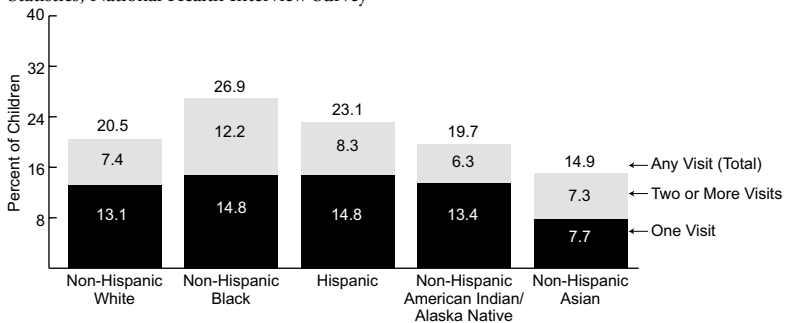
Source (III.7): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*All estimates are age-adjusted. **Poverty level, defined by the U.S. Census Bureau, was $22,314 for a family of four in 2010.*

Visits to the Emergency Department in the Past Year Among Children Under Age 18,* by Race/Ethnicity, 2010**

Source (III.7): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



*All estimates are age-adjusted. **The sample of Native Hawaiian/Pacific Islander children was too small to produce reliable results.*

PRENATAL CARE

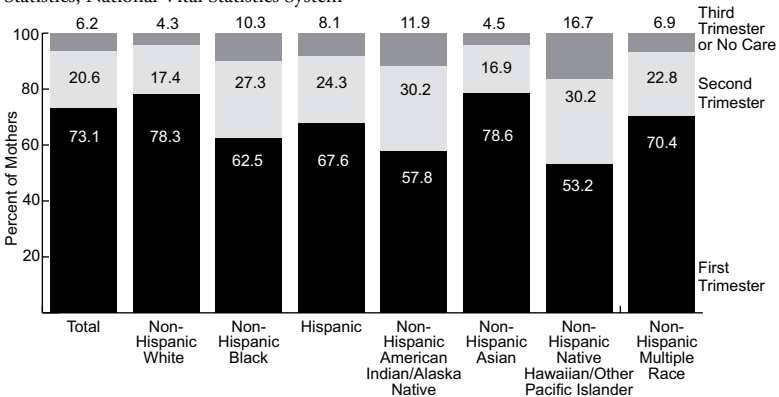
Prenatal care—especially care beginning in the first trimester—allows health care providers to identify and manage a pregnant woman's risk factors and health conditions and to provide expectant parents with relevant health care advice. In 2010, in the 33 States that had implemented the 2003 revision to the standard birth certificate as of January 1st and collected prenatal care information in the same format,[87] 73.1 percent of women giving birth were determined to have received prenatal care in the first trimester, while 6.2 percent of women began prenatal care in the third trimester or did not receive any prenatal care.

The timing of prenatal care initiation differs by race/ethnicity. Non-Hispanic Asian and non-Hispanic White mothers were most likely to begin prenatal care in the first trimester (78.6 and 78.3 percent, respectively) and least likely to begin prenatal care in the third trimester or not all (4.5 and 4.3 percent, respectively). The lowest rates of early prenatal care—received within the first trimester—were observed among non-Hispanic Native Hawaiian and Other Pacific Islander and non-Hispanic American Indian/Alaska Native mothers (53.2 and 57.8 percent, respectively), followed by non-Hispanic Black mothers (62.5 percent). These same racial and ethnic groups also had the highest rates of receiving late (third trimester) or no prenatal care (16.7, 11.9, and 10.3 percent, respectively).

Timing of prenatal care initiation also varies by maternal education, with early prenatal care entry increasing with greater educational attainment. For example, in 2010, first trimester prenatal care was obtained by only 57.6 percent of mothers with less than a high school diploma, compared to 86.7 percent of mothers with a bachelor's degree or higher. Conversely, only 2.5 percent of mothers with a bachelor's degree received late or no prenatal care, compared to 11.6 percent of mothers with less than a high school diploma.

Timing of Prenatal Care Initiation,* by Maternal Race/Ethnicity, 2010

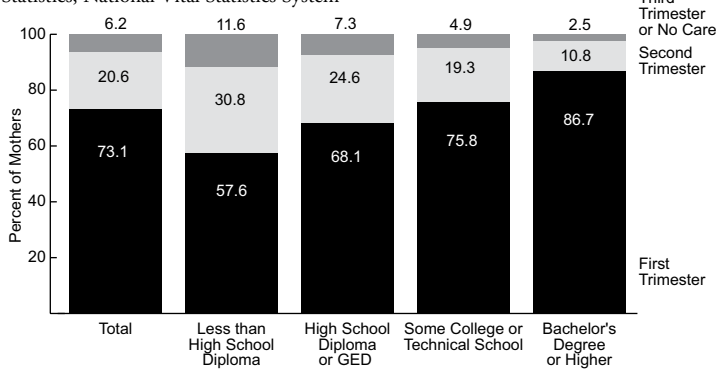
Source (III.9): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Data are from 33 states that implemented the 2003 revision of the birth certificate as of January 1, 2010, representing 67% of all US births; percentages may not total to 100 due to rounding.

Timing of Prenatal Care Initiation,* by Maternal Education, 2010

Source (III.9): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



*Data are from 33 states that implemented the 2003 revision of the birth certificate as of January 1, 2010, representing 67% of all US births; percentages may not total to 100 due to rounding.

HRSA SERVES CHILDREN

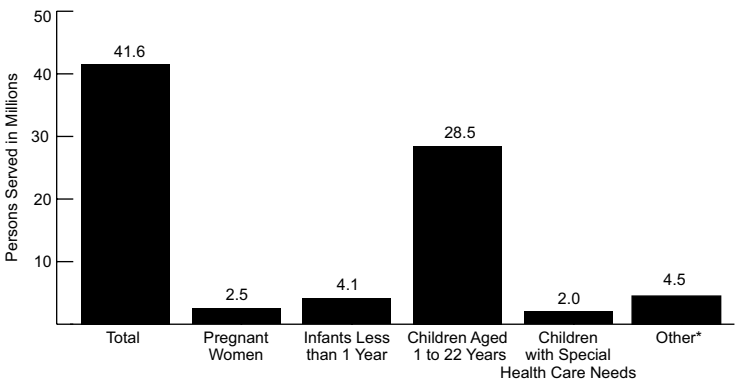
The Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services, is the primary Federal agency responsible for improving access to health care services for people who are uninsured, isolated or medically vulnerable. The agency is made up of 6 bureaus and 10 offices. One of these bureaus, the Maternal and Child Health Bureau (MCHB) takes the lead in promoting the physical and mental health, safety and well-being of the Nation's maternal and child health (MCH) population, which includes all women, infants, children and their families.

To support its mission, MCHB oversees Federal funding to States authorized under Title V of the Social Security Act. Title V authorizes appropriations to States to improve the health of mothers and children, including children with special health care needs (CSHCN). Each year, States report on the numbers of people served by Title V-funded programs. In 2010, programs overseen by MCHB and funded through Title V served over 41 million people within the MCH population, the majority of whom were children under the age of 22 years. Additionally, Federal programs administered by MCHB serve subsets of the MCH population, such as children with autism, sickle cell diseases, traumatic brain injury and epilepsy.

HRSA-supported community health centers seek to provide comprehensive, culturally competent, quality primary health care services to medically underserved communities and vulnerable populations. In 2011, over 20 million people were provided with medical, dental, mental health, substance abuse or other services across 1,128 locations. Children aged 0 to 18 years accounted for 33.5 percent of those served by community health centers, with women representing a majority of users (58.7 percent; data not shown).

Number of Persons Served, in Millions, Through the Title V Maternal and Child Health Block Grant, 2010

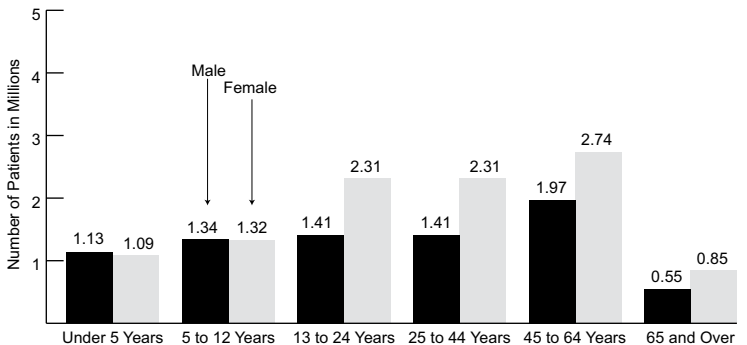
Source (III.10): Health Resources and Services Administration, Title V Information System



*"Others" usually represents services to reproductive-age women.

Number of Patients, in Millions, Served in HRSA-Funded Community Health Centers by Age and Sex, 2011

Source (III.11): Health Resources and Services Administration, Uniform Data System



STATE DATA

While the indicators presented in the previous sections are representative of the U.S. population as a whole, the following section presents data at the State level. Geographic differences in health status and health care utilization play an important role in tailoring health programs and interventions to specific populations. Included are data on infant, neonatal, and perinatal mortality, low birth weight, preterm birth, health care financing, Medicaid enrollment and expenditures, and CHIP enrollment.

The following pages reveal important disparities in these measures across States. For instance, the proportion of infants born low birth weight (less than 2,500 grams, or 5 pounds 8 ounces) was highest in Mississippi, followed by Louisiana and several other southern States. Births to unmarried women tended to be highest in these States as well.

All of the issues presented here have geographic program and policy implications. State and local leaders can use this information to better serve their maternal and child populations in need.

Children's Health Insurance Program (CHIP) and Medicaid Enrollment and Eligibility, 2011*

Source (IV.1, IV.2): Centers for Medicare and Medicaid Services, CHIP Statistical Enrollment Data System; Kaiser Commission on Medicaid and the Uninsured

State	Medicaid Enrollment	CHIP Enrollment (program type**)	Upper Eligibility†	Presumptive Eligibility◊ Medicaid	Presumptive Eligibility◊ CHIP
Total	35,571,506	7,970,879			
Alabama	866,094	109,255 (S)	300%	N	N
Alaska	79,286	12,787 (M)	175%	N	n/a
Arizona	947,977	20,043 (S)	200%	N	N
Arkansas	410,602	103,693 (M)	200%	N	n/a
California	4,565,016	1,763,831 (C)	250%	Y	Y
Colorado	453,719	105,255 (S)	250%	Y	Y
Connecticut	301,545	20,072 (S)	300%	Y	N
Delaware	93,598	15,348 (C)	200%	N	N
District of Columbia	106,500	8,675 (M)	300%	N	n/a
Florida	2,019,075	431,717 (C)	200%	N	N
Georgia	1,168,338	248,536 (S)	235%	N	N
Hawaii	140,150	30,584 (M)	300%	N	n/a
Idaho	178,249	42,604 (C)	185%	N	N
Illinois	2,178,950	336,885 (C)	200%	Y	Y
Indiana	698,383	158,138 (C)	250%	N	N
Iowa	306,158	75,133 (C)	300%	Y	Y
Kansas	215,703	60,431 (S)	241%	Y	Y
Kentucky	478,670	84,551(C)	200%	N	N
Louisiana	671,651	152,404 (C)	250%	N	N
Maine	142,931	32,994 (C)	200%	N	N
Maryland	465,409	119,906 (M)	300%	N	n/a
Massachusetts	500,534	144,767 (C)	300%	Y	Y
Michigan	1,205,449	83,004 (C)	200%	Y	Y
Minnesota	495,509	4,461 (M)	275%	N	n/a
Mississippi	468,183	91,470 (S)	200%	N	N
Missouri	566,293	96,014 (C)	300%	Y	N
Montana	76,514	24,365 (C)	250%	Y	Y
Nebraska	166,277	52,852 (M)	200%	N	n/a
Nevada	236,360	29,760 (S)	200%	N	N
New Hampshire	96,625	10,801(C)	300%	Y	N
New Jersey	639,764	198,283 (C)	350%	Y	Y
New Mexico	380,373	9,635 (M)	235%	Y	n/a
New York	2,124,322	552,068 (S)	400%	Y	Y
North Carolina	1,194,999	254,460 (C)	200%	N	N
North Dakota	48,486	7,112 (C)	160%	N	N
Ohio	1,214,287	280,650 (M)	200%	Y	n/a
Oklahoma	507,378	120,501 (M)	185%	N	n/a
Oregon	385,131	112,165 (S)	300%	N	N
Pennsylvania	1,300,042	272,492 (S)	300%	N	N
Rhode Island	110,208	24,815 (M)	250%	N	n/a
South Carolina	501,025	72,084 (M)	200%	N	n/a
South Dakota	47,469	16,623 (C)	200%	N	N
Tennessee	792,302	96,028 (C)	250%	N	N
Texas	3,471,310	972,715 (S)	200%	N	N
Utah	247,298	59,698 (S)	200%	N	N
Vermont	72,826	7,054 (S)	300%	N	N
Virginia	625,438	182,128 (C)	200%	N	N
Washington	764,662	43,364 (S)	300%	N	N
West Virginia	249,203	37,631 (S)	250%	N	N
Wisconsin	537,093	172,451 (M)	300%	Y	n/a
Wyoming	59,142	8,586 (S)	200%	N	N

**CHIP and Medicaid enrollment data are for Fiscal Year (FY) 2011 (October 2010 through September 2011). Income thresholds for eligibility and data on enrollment processes reflect rules in effect as of January 1, 2011.*

***Programs may be an expansion of Medicaid (M), a separate CHIP program (S), or a combination (C).*

†Income eligibility levels may refer to either gross or net income depending on state and reflect the highest eligibility level in the state using CHIP/Medicaid funds.

◊ Presumptive eligibility provides immediate but temporary benefits for applicants who appear to meet eligibility requirements but have not yet been officially approved; in some States, this is only available for certain populations (e.g., infants).

EPSDT◊ Eligibility and Utilization among Children Under 21, FY 2010

Source (IV.3): Centers for Medicare and Medicaid Services. Annual EPSDT Participation Report and Medicaid Statistical Information System.

State	Children Eligible for EPSDT through Medicaid/CHIP*	EPSDT Participation Ratio**
Alabama	559,430	54%
Alaska	90,258	55%
Arizona	805,482	65%
Arkansas	417,502	46%
California	4,697,466	88%
Colorado	420,327	56%
Connecticut†	300,731	65%
Delaware	101,208	59%
District of Columbia	91,341	81%
Florida	2,035,073	66%
Georgia	1,206,083	51%
Hawaii	152,235	76%
Idaho	180,096	47%
Illinois	1,631,168	77%
Indiana	772,155	50%
Iowa	299,743	81%
Kansas	245,034	14%
Kentucky	541,565	57%
Louisiana	809,804	71%
Maine	145,543	43%
Maryland	591,820	63%
Massachusetts	615,599	75%
Michigan	1,247,782	50%
Minnesota	465,712	72%
Mississippi	427,655	42%
Missouri	686,693	73%
Montana	79,443	56%
Nebraska	164,960	92%
Nevada	228,169	68%
New Hampshire	100,381	73%
New Jersey	696,923	62%
New Mexico	374,082	71%
New York	2,150,748	61%
North Carolina	1,115,753	55%
North Dakota	50,372	46%
Ohio	1,379,150	57%
Oklahoma	569,228	56%
Oregon	339,022	63%
Pennsylvania	1,222,852	55%
Rhode Island	111,774	54%
South Carolina	591,865	62%
South Dakota	89,232	51%
Tennessee	880,919	64%
Texas	3,347,025	65%
Utah	212,960	61%
Vermont	62,862	52%
Virginia	653,352	73%
Washington	782,424	64%
West Virginia	219,576	46%
Wisconsin	564,011	74%
Wyoming	59,949	51%

◊Early and Periodic Screening, Diagnosis, and Treatment Program is the child health component of Medicaid. It is designed to improve the health of low-income children by financing appropriate and necessary pediatric services.

**Total unduplicated number of individuals under the age of 21 enrolled in Medicaid or a Children's Health Insurance Program (CHIP) Medicaid expansion program determined to be eligible for EPSDT services.*

***The ratio of eligibles receiving any EPSDT Services to the number of eligibles who should have received such services.*

†Data for Connecticut are from 2009.

Health Insurance Status* of Children Under 18, 2010

Source (IV.4): US Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

State	Percent with Private Insurance	Percent with Public Insurance**	Percent Uninsured
Total	59.6%	37.9%	9.8%
Alabama	60.5%	46.7%	7.9%
Alaska	56.4%	46.1%	9.9%
Arizona	53.1%	41.7%	13.4%
Arkansas	52.5%	46.4%	11.5%
California	55.1%	40.8%	10.7%
Colorado	68.9%	30.4%	9.6%
Connecticut	72.0%	21.3%	7.7%
Delaware	64.1%	31.1%	8.8%
District of Columbia	47.4%	54.6%	8.0%
Florida	55.3%	34.2%	17.9%
Georgia	56.7%	36.0%	11.3%
Hawaii	62.6%	44.3%	3.5%
Idaho	63.1%	31.1%	10.2%
Illinois	59.1%	37.0%	9.1%
Indiana	64.3%	38.3%	8.6%
Iowa	69.8%	33.5%	5.9%
Kansas	64.2%	35.0%	8.1%
Kentucky	58.8%	40.3%	8.2%
Louisiana	45.4%	39.9%	8.4%
Maine	65.0%	43.4%	4.0%
Maryland	68.1%	27.4%	7.0%
Massachusetts	73.6%	33.1%	2.9%
Michigan	65.8%	32.5%	5.6%
Minnesota	74.4%	29.6%	5.5%
Mississippi	43.9%	51.6%	10.9%

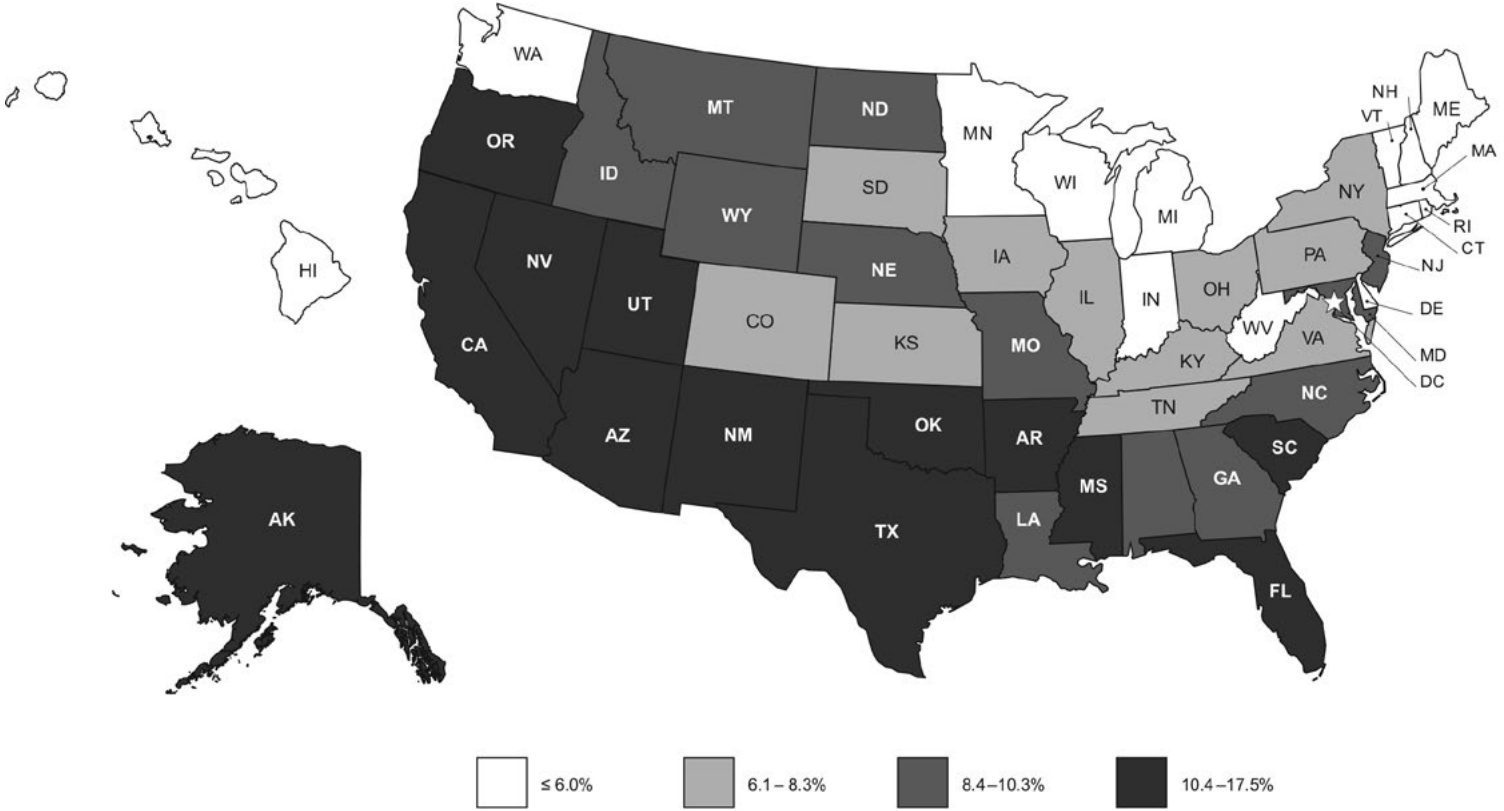
State	Percent with Private Insurance	Percent with Public Insurance**	Percent Uninsured
Missouri	67.2%	35.0%	9.7%
Montana	60.7%	35.8%	10.4%
Nebraska	66.5%	33.2%	6.7%
Nevada	62.2%	26.9%	13.4%
New Hampshire	82.5%	22.0%	3.8%
New Jersey	69.4%	23.7%	9.2%
New Mexico	47.4%	50.0%	14.0%
New York	60.1%	41.4%	7.5%
North Carolina	50.8%	38.7%	11.8%
North Dakota	73.0%	27.3%	5.9%
Ohio	64.8%	31.3%	8.7%
Oklahoma	56.0%	45.1%	12.6%
Oregon	62.5%	32.4%	11.9%
Pennsylvania	66.1%	32.4%	6.8%
Rhode Island	65.7%	39.9%	6.0%
South Carolina	56.2%	31.4%	12.3%
South Dakota	69.0%	36.4%	8.4%
Tennessee	58.3%	44.9%	6.6%
Texas	47.1%	40.2%	16.5%
Utah	73.0%	20.2%	11.3%
Vermont	63.2%	47.4%	5.6%
Virginia	71.0%	31.2%	7.5%
Washington	55.3%	46.1%	4.8%
West Virginia	63.0%	46.6%	6.2%
Wisconsin	72.5%	32.1%	4.7%
Wyoming	63.7%	32.1%	9.6%

**Children may have more than one type of coverage.*

***Includes children covered by Medicare, Medicaid, CHIP, state-specific plans, military health insurance, and the Indian Health Service.*

Health Insurance Status: Percent of Children Aged 18 and Younger Who Are Uninsured, by State, 2010

Source (IV.4): US Census Bureau, Current Population Survey, Annual Social and Economic Supplement.



Low Birth Weight and Preterm Birth (Percent), by State and Maternal Race/Ethnicity, 2009

Source (IV.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

State	Low Birth Weight (<2,500 grams or 5.5 pounds)						Preterm Birth (<37 weeks' gestation)					
	Total	NH* White	NH* Black	His-panic	AI/ AN*	A/PI*	Total	NH* White	NH* Black	His-panic	AI/AN*	A/PI*
United States	8.2	7.2	13.6	6.9	7.3	8.3	12.2	10.9	17.5	12.0	13.5	10.8
Alabama	10.3	8.4	15.3	6.0	10.2	9.0	15.6	13.1	20.6	15.0	18.0	12.6
Alaska	5.9	5.1	13.0	6.2	6.3	5.9	11.0	8.8	17.8	11.4	13.6	11.9
Arizona	7.1	6.9	12.6	6.7	6.3	8.6	12.7	11.9	18.3	12.8	14.3	12.5
Arkansas	8.9	7.6	14.8	6.2	6.1	9.7	13.1	11.9	18.3	11.3	10.7	13.5
California	6.8	6.2	11.8	6.2	6.7	8.0	10.3	9.3	14.3	10.3	11.2	9.9
Colorado	8.8	8.4	13.5	8.4	9.7	10.3	11.3	10.6	14.8	11.9	11.9	12.7
Connecticut	8.0	7.0	11.9	8.5	8.0	9.0	10.2	9.2	13.3	11.2	10.2	10.2
Delaware	8.6	6.8	13.3	6.1	N/A	9.3	12.5	9.9	17.7	12.6	N/A	11.8
DC	10.3	7.0	13.0	7.5	N/A	5.5	14.2	8.7	17.4	13.6	N/A	11.2
Florida	8.7	7.3	13.4	7.1	5.6	8.8	13.5	11.4	18.2	13.3	14.9	12.1
Georgia	9.4	7.5	13.5	6.4	9.3	8.4	13.8	11.6	17.7	12.0	11.5	11.5
Hawaii	8.4	6.8	12.7	9.2	N/A	8.9	12.6	10.0	14.6	12.8	10.5	13.6
Idaho	6.5	6.1	8.0	8.2	7.0	10.2	10.1	9.4	12.4	13.1	13.3	10.5
Illinois	8.4	7.1	14.1	6.8	11.5	9.2	12.4	10.9	17.9	12.0	16.4	10.6
Indiana	8.3	7.7	13.8	6.8	N/A	9.1	11.9	11.1	17.0	11.8	8.5	11.8
Iowa	6.7	6.5	12.4	5.9	N/A	7.4	11.3	10.9	17.0	11.2	9.8	11.1
Kansas	7.3	6.8	12.9	6.4	6.7	9.1	11.2	10.6	16.6	10.9	11.0	12.5
Kentucky	8.9	8.5	13.9	7.3	13.4	7.8	13.6	13.2	18.2	13.5	19.5	10.7
Louisiana	10.6	8.2	14.7	7.0	10.6	8.8	14.7	12.0	19.3	11.1	13.3	11.8
Maine	6.3	6.3	4.3	10.6	N/A	5.5	9.9	9.9	11.2	9.6	N/A	9.3
Maryland	9.1	7.1	13.0	6.6	8.0	8.4	12.7	10.5	16.4	12.4	11.9	10.5
Massachusetts	7.8	7.2	10.9	8.6	6.4	7.7	10.9	10.3	14.0	11.5	15.1	10.3
Michigan	8.4	7.0	13.8	6.5	6.8	9.3	12.4	11.1	18.0	11.0	11.8	11.3
Minnesota	6.5	6.0	10.1	5.8	7.5	7.6	10.1	9.8	12.2	9.6	14.2	9.7
Mississippi	12.2	9.1	16.4	6.9	10.0	6.9	18.0	14.5	22.3	14.2	21.5	12.1
Missouri	8.1	7.0	14.2	6.9	8.3	7.4	12.2	10.9	18.5	13.1	12.0	10.8
Montana	7.1	7.2	N/A	6.4	6.9	N/A	10.9	10.5	N/A	9.2	13.9	N/A
Nebraska	7.1	6.5	13.2	7.0	9.7	9.9	11.5	10.8	16.7	12.6	12.6	12.9
Nevada	8.1	7.7	13.9	6.7	8.3	9.5	13.8	12.2	19.4	13.6	13.5	15.9
New Hampshire	6.9	6.7	9.2	8.9	N/A	8.3	9.9	9.7	18.5	10.9	N/A	9.4
New Jersey	8.3	7.2	13.1	7.1	6.7	8.6	12.0	10.6	16.7	12.3	12.9	9.9
New Mexico	8.3	7.8	16.8	8.4	7.8	8.9	12.3	10.4	18.9	12.6	14.5	11.4
New York	8.2	6.9	12.9	7.8	7.5	7.6	12.2	10.4	16.8	13.1	11.4	10.6
North Carolina	9.0	7.5	14.3	6.4	11.3	8.5	13.0	11.3	17.6	12.1	15.0	11.1
North Dakota	6.4	6.1	N/A	6.7	8.8	N/A	10.6	10.0	13.6	9.9	15.3	6.9
Ohio	8.6	7.5	14.0	7.4	8.0	8.1	12.3	11.1	17.9	12.7	11.5	10.7
Oklahoma	8.4	8.1	14.4	6.7	7.1	8.0	13.8	13.2	19.3	13.3	13.8	12.2
Oregon	6.3	6.1	10.0	6.2	6.5	7.3	9.8	9.6	11.6	10.3	10.0	10.0
Pennsylvania	8.3	7.2	13.3	9.1	10.4	7.9	11.5	10.3	16.1	13.0	14.9	9.9
Rhode Island	8.0	7.4	10.5	7.8	7.9	9.7	11.4	10.2	15.5	12.3	14.0	12.7
South Carolina	10.0	7.9	14.7	6.6	5.8	8.4	14.5	12.4	19.0	12.4	18.0	11.3
South Dakota	5.8	5.6	12.2	5.9	5.7	9.2	10.9	10.0	18.6	13.4	13.7	13.7
Tennessee	9.2	8.1	13.8	6.4	7.5	8.8	13.0	11.7	17.6	11.7	12.3	11.6
Texas	8.5	7.8	14.2	7.6	7.8	9.1	13.1	11.8	17.6	13.1	12.8	11.3
Utah	7.0	6.7	9.1	7.6	7.3	9.2	11.3	10.6	17.0	13.6	14.5	13.7
Vermont	6.7	6.7	N/A	N/A	N/A	N/A	9.3	9.2	N/A	12.8	N/A	10.8
Virginia	8.4	7.1	13.1	6.2	N/A	7.8	11.4	10.0	15.4	11.2	7.8	11.0
Washington	6.3	5.9	10.3	5.9	7.0	7.3	10.3	9.5	13.3	11.2	14.1	11.0
West Virginia	9.2	9.0	14.7	6.1	N/A	N/A	12.9	12.7	18.7	8.7	N/A	9.6
Wisconsin	7.1	6.3	14.2	6.1	5.2	7.3	10.9	9.9	17.5	11.8	10.8	10.2
Wyoming	8.4	7.9	N/A	10.4	9.8	12.7	11.2	10.7	N/A	13.1	14.2	15.8

**Note:*
NH: Non Hispanic
AI/AN: American Indian/Alaska Native. May include Hispanics.
A/PI: Asian/Pacific Islander; separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available. May include Hispanics.
N/A: Figure does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.

Infant Mortality by State and Maternal Race/Ethnicity, 2008

Source (IV.6): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System

State	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	American Indian/ Alaska Native*	Asian/ Pacific Islander†	Rate Ratio: Non-Hispanic Black to Non-Hispanic White
United States	6.68	5.58	13.11	5.50	8.65	4.62	2.35
Alabama	9.47	7.67	13.73	7.50	N/A	N/A	1.79
Alaska	6.54	4.10	N/A	N/A	12.24	N/A	N/A
Arizona	6.54	6.04	14.85	6.13	7.57	6.54	2.46
Arkansas	7.89	6.70	13.53	5.71	N/A	N/A	2.02
California	5.12	4.51	10.72	4.88	7.05	4.30	2.38
Colorado	6.04	5.13	11.97	6.96	N/A	4.90	2.33
Connecticut	6.27	4.80	13.11	6.35	N/A	5.73	2.73
Delaware	8.03	5.89	13.46	7.10	N/A	N/A	2.29
DC	11.97	4.46	17.68	N/A	N/A	N/A	3.96
Florida	7.21	5.71	12.83	5.38	N/A	5.75	2.25
Georgia	8.02	5.87	12.70	5.06	N/A	4.37	2.16
Hawaii	6.04	4.58	18.54	4.98	N/A	6.27	4.05
Idaho	6.46	5.95	N/A	7.91	N/A	N/A	N/A
Illinois	7.10	5.70	13.45	5.91	N/A	5.31	2.36
Indiana	7.44	6.47	15.36	6.28	N/A	N/A	2.37
Iowa	5.43	5.06	11.10	6.61	N/A	N/A	2.19
Kansas	7.50	6.94	14.62	7.15	N/A	5.36	2.11
Kentucky	7.04	6.62	12.13	5.07	N/A	N/A	1.83
Louisiana	9.38	6.62	13.88	3.92	N/A	7.19	2.10
Maine	6.04	5.90	N/A	N/A	N/A	N/A	N/A
Maryland	7.98	5.50	12.98	5.33	N/A	5.33	2.36
Massachusetts	4.94	4.04	10.90	6.08	N/A	3.06	2.70
Michigan	7.56	5.87	14.70	7.09	N/A	4.89	2.50
Minnesota	5.55	4.77	11.33	4.64	10.25	5.65	2.38
Mississippi	10.16	7.07	13.82	6.64	N/A	N/A	1.95
Missouri	7.34	6.18	14.49	5.12	N/A	4.02	2.34
Montana	6.47	5.89	N/A	N/A	9.22	N/A	N/A
Nebraska	5.93	5.33	12.98	5.21	N/A	N/A	2.44
Nevada	6.10	5.29	12.54	5.69	N/A	4.96	2.37
New Hampshire	5.10	5.00	N/A	N/A	N/A	N/A	N/A
New Jersey	5.35	3.78	12.06	5.12	N/A	2.90	3.19
New Mexico	5.81	6.12	N/A	5.60	5.70	N/A	N/A
New York	5.57	4.29	11.29	5.01	N/A	3.35	2.63
North Carolina	8.29	6.17	14.62	6.32	15.37	5.62	2.37
North Dakota	6.44	5.63	N/A	N/A	12.27	N/A	N/A
Ohio	7.74	6.25	15.03	6.88	N/A	4.59	2.40
Oklahoma	7.85	7.52	13.91	5.09	8.36	5.64	1.85
Oregon	5.41	5.22	10.16	5.36	9.34	4.78	1.95
Pennsylvania	7.52	5.78	14.04	7.94	N/A	6.06	2.43
Rhode Island	6.47	4.28	10.56	7.77	N/A	N/A	2.47
South Carolina	8.30	6.04	12.97	5.87	N/A	5.32	2.15
South Dakota	7.15	5.59	N/A	N/A	13.00	N/A	N/A
Tennessee	8.37	6.54	15.36	6.47	N/A	5.78	2.35
Texas	6.22	5.48	11.69	5.61	7.47	4.16	2.13
Utah	4.94	4.73	N/A	5.03	N/A	7.10	N/A
Vermont	5.12	4.95	N/A	N/A	N/A	N/A	N/A
Virginia	7.24	5.48	13.40	5.97	N/A	4.74	2.45
Washington	5.01	4.33	7.66	5.28	9.15	4.26	1.77
West Virginia	7.38	7.11	14.93	N/A	N/A	N/A	2.10
Wisconsin	6.57	5.37	15.14	6.34	9.92	6.84	2.82
Wyoming	7.05	6.32	N/A	7.90	N/A	N/A	N/A

**May include Hispanics.*
†Separate estimates for Asians and Native Hawaiians and Other Pacific Islanders were not available. May include Hispanics.
N/A: Figure does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator

RURAL AND URBAN DATA

The following section compares rural to urban residence for several infant health indicators. In 2009, 15.2 percent of births were to mothers who resided in rural or non-metropolitan counties. Rural counties tend to be disadvantaged in a variety of areas, including poorer health care access, greater poverty, and higher rates of injury and smoking, which may affect maternal and infant health.[88,89] These comparisons of low birth weight, preterm birth, and infant mortality indicate that the health status of infants living in rural counties, and especially small rural counties, is generally poorer than that of infants in urban or metropolitan counties. For example, in 2008, the rate of postneonatal mortality (deaths from 1 month to under 1 year) was 27 percent higher in small rural counties than urban counties (2.84 versus 2.23 deaths per 1,000 live births, respectively).

LOW BIRTH WEIGHT AND PRETERM BIRTH

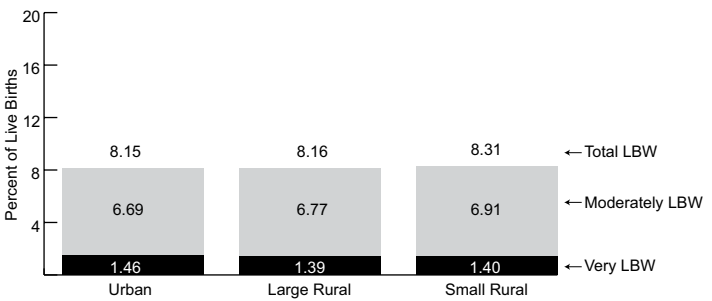
Disorders related to low birth weight (LBW) and preterm birth (PTB) are a leading cause of infant mortality in the United States, and particularly neonatal mortality (deaths within the first month of life). The causes of LBW and PTB are not fully known, but have been linked to maternal smoking and substance use, chronic conditions, and infections (see pages on Low Birth Weight and Preterm Birth).

In 2009, 8.31 percent of infants residing in small rural counties were LBW (weighing less than 2,500 grams, or 5.5 pounds). This was slightly higher than the LBW rate among residents of urban or large rural counties (8.15 and 8.16 percent, respectively). The greater rate of LBW for residents of small rural counties was due entirely to a greater proportion of infants born at moderately LBW (from 1,500 grams or 3.25 pounds to less than 2,500 grams or 5.5 pounds) as opposed to very LBW (less than 1,500 grams or 3.25 pounds). The proportion of infants born at moderately LBW was highest among infants both in small rural counties (6.91 percent), followed by those in large rural counties (6.77 percent), and was lowest among those in urban counties (6.69 percent). However, the difference between small rural and urban counties was less than 5 percent.

Similar to LBW, there were small differences in PTB (delivering at less than 37 weeks' completed gestation) by rural and urban residence. These differences were largely confined to infants born at the late preterm range of 34 to 36 weeks' gestation. Late PTB, for example, ranged from 8.63 percent among infants born to residents of urban counties to 8.98 percent among those in small rural counties; however, this difference was less than 5 percent. Though not at highest risk, late preterm and moderately LBW infants are still at elevated risk for mortality and morbidity particularly for developmental delays, compared to their term and normal birth weight counterparts.[90,91]

Low Birth Weight (LBW),* by Rural/Urban Residence, 2009**

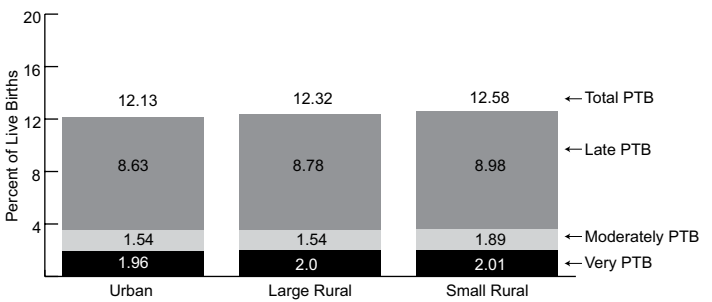
Source (V.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



**Low birth weight, <2,500 grams or 5.5 pounds; moderately low birth weight, 1,500 to 2,499 grams or 3.25 to 5.5 pounds; very low birth weight, <1,500 grams or 3.25 pounds. **Urban includes all metropolitan counties regardless of size, large rural includes non-metropolitan counties with a city of 10,000 or more residents, small rural includes non-metropolitan counties without a city of 10,000 or more residents; follows the National Center for Health Statistics' Urban-Rural Classification Scheme for Counties.*

Preterm Birth (PTB),* by Rural/Urban Residence, 2009**

Source (V.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



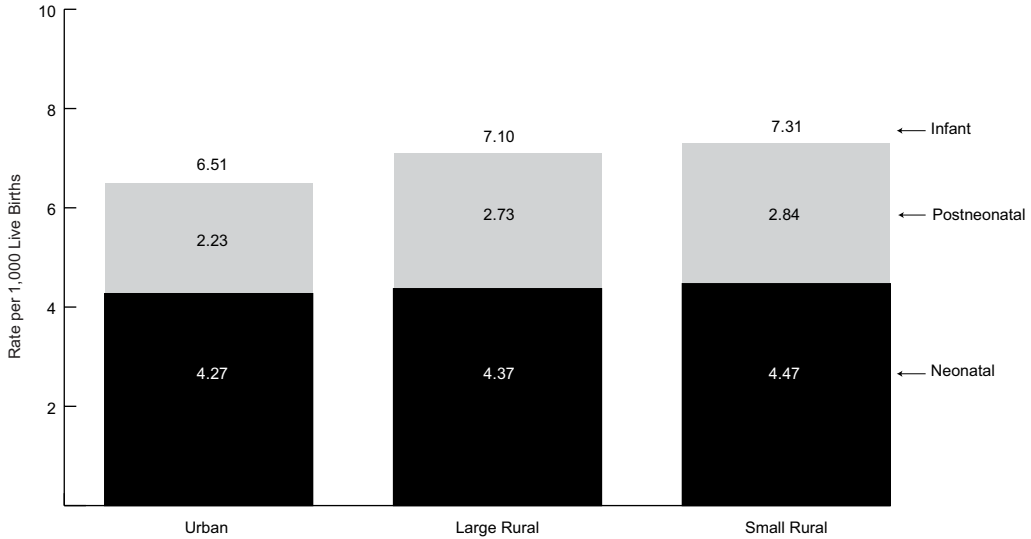
**Preterm birth, <37 weeks' gestation; late preterm birth, 34-36 weeks' gestation; moderately preterm birth, 32-33 weeks' gestation; very preterm birth, <32 weeks' gestation. **Urban includes all metropolitan counties regardless of size, large rural includes non-metropolitan counties with a city of 10,000 or more residents, small rural includes non-metropolitan counties without a city of 10,000 or more residents; follows the National Center for Health Statistics' Urban-Rural Classification Scheme for Counties.*

INFANT MORTALITY

In 2008, 4,662 infants born to residents of rural or non-metropolitan counties died in the first year of life. The infant mortality rate was higher in small and large rural counties (7.31 and 7.10 deaths per 1,000 live births, respectively) than in urban counties (6.51 per 1,000). Although the infant mortality rate in rural counties was higher than urban counties in both the neonatal (<28 days) and postneonatal periods (28 to 364 days), disparities were only significant in the postneonatal period. For example, postneonatal mortality was 27 percent higher in small rural counties than urban counties, while neonatal mortality was only 5 percent higher. The major causes of postneonatal mortality include sudden infant death syndrome (SIDS), congenital anomalies, injury, and infection.[92] These causes may be addressed through improved education for safe sleep practices and injury prevention as well as improved access to health care. SIDS and infection have also been associated with environmental tobacco smoke exposure,[93] and smoking has been shown to be higher in rural areas.[94]

Infant, Neonatal, and Postneonatal Mortality Rates,* by Rural/Urban Residence, 2008**

Source (V.1): Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System



**Infant deaths are under 1 year; neonatal deaths are under 28 days; postneonatal deaths are between 28 days and under 1 year. **Urban includes all metropolitan counties regardless of size, large rural includes non-metropolitan counties with a city of 10,000 or more residents, small rural includes non-metropolitan counties without a city of 10,000 or more residents; follows the National Center for Health Statistics' Urban-Rural Classification Scheme for Counties.*

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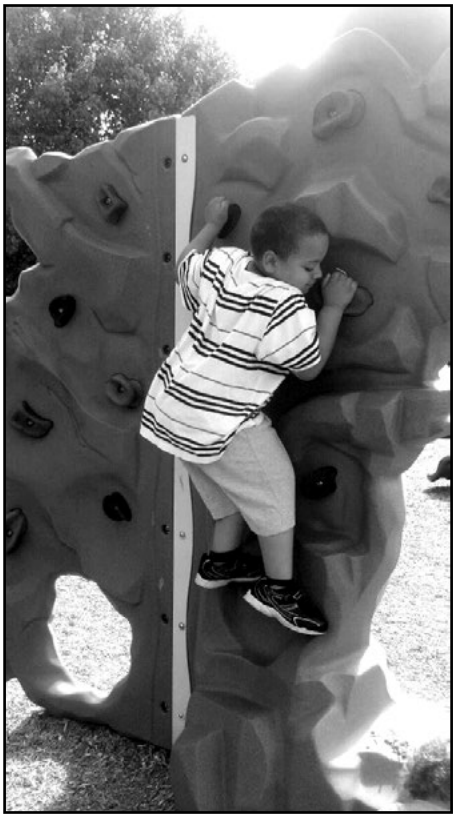

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