













# Child Health USA 2008-2009

September 2009
U.S. Department of Health and Human Services
Health Resources and Services Administration



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## **Preface**

The Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB) is pleased to present Child Health USA 2008-2009, the 19th annual report on the health status and service needs of America's children. MCHB's vision is that of 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.

This edition of *Child Health USA* combines 2 calendar years in order to provide more timely data for public use. All of the data discussed within the text of these pages are from the same sources as the information in the corresponding graphs, unless otherwise noted. Data are presented for the target populations of Title V Maternal and Child Health Block Grant funding: infants, children, adolescents, children with special health care needs, and women of childbearing age. *Child Health USA 2008-2009* addresses health status

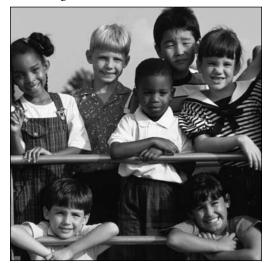
and health services utilization within this population, and offers insight into the Nation's progress toward the goals set out in the MCHB's strategic plan—to assure quality of care, eliminate barriers and health disparities, and improve the health infrastructure and system of care for women, infants, children, and families.

Child Health USA is published 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 information 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 City Data, contain information on selected indicators at those levels.

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## Introduction

reflects the overall health of the Nation and has important implications for the future as these children grow into adults. Many childhood issues—including weight, smoking, oral health, and vaccination coverage—can affect health throughout the lifespan. In 2008, nearly 25 percent of the United States population was under 18 years of age. Overall, the parents of 84.4 percent of children reported their children to be in excellent or very good health in 2007, but that percentage was lower for older children. The health and well-being of these children, and that of the entire Nation, depends on preventive services, such as prenatal care and immunization, as well as the promotion of healthy life choices. These measures help ensure that children are born healthy and maintain good health as they grow up.

Good health begins even before birth. Timely prenatal care is an important preventive strategy that can help protect the health of both mother and child. Entry into prenatal care during the first trimester has been increasing, reaching 83.2 percent of pregnant women in 2005 (this is according to data from areas using the "unrevised" birth certificate—for more information, please

The health of the current child population see page 65). A small proportion of women (3.6 lects the overall health of the Nation and has portant implications for the future as these iddren grow into adults. Many childhood isses—including weight, smoking, oral health, and excination coverage—can affect health through-

Several other indicators of maternal health are included in *Child Health USA*. For instance, data are presented on maternal age, which can affect the health of both infant and mother. In 2006, births to women aged 15-19 years increased for the first time in 15 years to 41.9 births per 1,000 females in this age group; this is still significantly lower than the most recent peak (61.8 per 1,000 in 1991). The average age at first birth among women in the United States was 25.0 years.

A number of family and neighborhood factors can also affect the health and well-being of children and the larger community. In 2007, 71.0 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 (63.3 percent). In 2005, 60 percent of children under 6 years of age required care from someone other than a parent at least once a week. The 2007

National Survey of Children's Health measured a number of neighborhood amenities available to children: 46.7 percent of children were reported to have all four of the listed amenities (sidewalks or walking paths, a park or playground, a community or recreation center, and a library or bookmobile), while 4.5 percent of children had none of those neighborhood amenities. Additionally, 28.6 percent of children were reported to live in neighborhoods with at least one of three specific indicators of poor neighborhood conditions, such as litter, vandalism, or dilapidated housing.



regarding the health of infants and young children. Healthy birth weight is an important indicator of infant health, and emerging evidence indicates that birth weight may affect children into adulthood. Children born very low birth weight are significantly more likely to die in the first year of life than children of healthy birth weight, and those who survive are at particularly high risk for health complications. In 2006, 8.3 percent of infants were born low birth weight (less than 2,500 grams, or 5 pounds 8 ounces). Although the number of multiple births, which are more likely to result in low birth weight, are on the rise, the low birth weight rate among singletons is rising as well. Very low birth weight (less than 1,500 grams, or 3 pounds 4 ounces) represented 1.5 percent of live births in 2006. Although maternal and infant mortality rates have dropped dramatically in the last century, the United States still has one of the highest rates of infant death in the industrialized world (6.7 deaths per 1,000 live births).

Breastfeeding can support the health of infants and mothers, and rates have increased steadily since the beginning of the last decade. In 2007, 75.5 percent of children through age 5 had been breastfed for some period of time. Al-

Child Health USA also provides information though recommended by the American Academy health care provider or school staff about emoof Pediatrics, only 12.4 percent of children were breastfed exclusively (without supplemental food or liquids) for the first 6 months of life.

> Vaccination is a preventive health measure that protects children into adulthood. Vaccines are available for a number of public health threats, including measles, mumps, rubella (German measles), polio, diphtheria, tetanus, pertussis (whooping cough), and H. Influenzae type b (a meningitis bacterium). In 2006, 80.5 percent of children aged 19-35 months had received this recommended series of vaccines; 76.9 percent of children received the recommended series plus the varicella (chicken pox) vaccine.

Physical activity is another important protective factor in lifelong health, with habits that can be formed early in childhood. Results from the 2007 Youth Risk Behavior Surveillance System indicate that 34.7 percent of high school students met the levels of physical activity recommended at the time, and 24.9 percent of students did not participate in 1 hour or more of physical activity in the past week.

Mental health is another important health issue among children. In 2005-2006, the parents of 11.2 percent of girls aged 4-17 years and 17.6 percent of boys in that age group had talked to a

tional or behavioral difficulties. Overall, 4.2 percent of girls and 6.4 percent of boys received treatment for these difficulties (not including children who received medication only).

The period of adolescence brings age-specific health issues that need to be monitored and addressed. In 2007, 47.8 percent of high school students reported ever having had sexual intercourse. Although sexual activity increased with



two-thirds of whom used condoms, while 52.6 percent of 12th grade students were sexually active, half of whom used condoms.

With sexual activity comes the risk of sexually transmitted infections (STIs). Adolescents (aged 15-19) and young adults (aged 20-24 years) are at much higher risk of contracting STIs than are older adults. Chlamydia continues to be one of the most common STIs among adolescents and young adults, with rates of 1,674 and 1,796 per 100,000, respectively, in 2006. Gonorrhea followed in prevalence with overall rates of 459 and 528 per 100,000 among adolescents and young adults, respectively. Cases of genital human papillomavirus (HPV) are not currently tracked by the Centers for Disease Control and Prevention, but it is believed to be the most common STI in the United States. It is estimated that 24.5 percent of females aged 14-19 years and 44.8 percent of females aged 20-24 years had an HPV infection in 2003-2004.

Violence also threatens the health of adolescents. The 2007 Youth Risk Behavior Surveillance indicates that 18.0 percent of high school students had carried a weapon at some point during the month preceding the survey. Males were

grade students, 20.1 percent were sexually active, weapon (28.5 versus 7.5 percent), with non-Hispanic White males being the most likely to do so (30.3 percent). The survey also showed that 12.4 percent of students had been in a fight on school property in the past year; this was most common among non-Hispanic Black males (20.0 percent).

> With regard to substance use, 9.5 percent of adolescents aged 12-17 years reported using illicit drugs in the past month. Rates were highest among children aged 16-17 years (16.0 percent). Alcohol was the most commonly used drug among adolescents, with 15.9 percent reporting past month use.

> The health status and health services utilization indicators reported in Child Health USA can help policymakers and public health officials bet-

grade level, condom use decreased: among 9th about four times as likely as females to carry a ter 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 drugfree 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 population of the United States is becoming increasingly diverse, which is reflected in the sociodemographic characteristics of children and their families. The percentage of children who are Hispanic or Asian/Pacific Islander 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 require 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 school dropout rates.



#### POPULATION OF CHILDREN

In 2007, there were an estimated 75.2 million children under 18 years of age in the United States, representing nearly 25 percent of the population. Young adults aged 20-24 years composed 7 percent of the population, while adults aged 25-64 years composed over 53 percent of the population, and adults aged 65 years and older composed over 12 percent.

Since the 2000 Census, the number of children under 5 years of age has risen 8 percent, while the numbers of children aged 5-9 and 10-

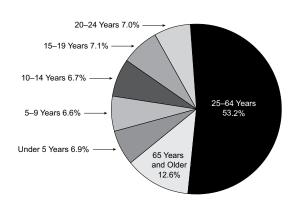
14 years have fallen 3.4 percent and 1.0 percent, children represented 9 percent of all children respectively. The number of adolescents aged 15- in 1980, compared to more than 20 percent in 19 years of age has risen just over 6 percent, while 2007; Asian/Pacific Islander children represented the number of young adults aged 20-24 years has 2 percent of all children in 1980, but more than risen nearly 11 percent. The number of adults aged 25-64 years has risen over 9 percent since the 2000 Census, and the number of adults aged 65 years and older has risen more than 8 percent in the same period (data not shown).

The racial/ethnic makeup of the child population reflects the increasing diversity of the population over the past several decades. Hispanic

4 percent in 2007. While the percentage of children who are Hispanic or Asian/Pacific Islander has more than doubled since 1980, the percentage who are non-Hispanic White has declined, and the percentage who are Black has remained relatively stable.

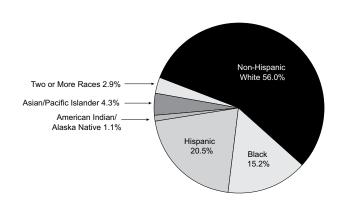
## U.S. Population, by Age Group, 2007

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



## Population of Children Under Age 18, by Race/Ethnicity, 2007

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



# 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 2007, nearly 22 percent of children living in the United States had at least one foreign-born parent. Of all children, 18.3 percent were U.S.-born with a foreign-born parent or parents, and 3.6 percent of children were themselves foreign-born. Most children (74.4 percent) were native-born with native-born parents.

with nativity. In 2007, foreign-born children of 2007 (91.7 percent), while foreign-born children foreign-born parents were most likely to live in households with incomes below 100 percent of the poverty threshold (25.6 percent) and 100-199 percent of the poverty threshold (31.8 percent). In comparison, only 15.8 percent of native-born children of native-born parents lived below 100 percent of the poverty threshold.

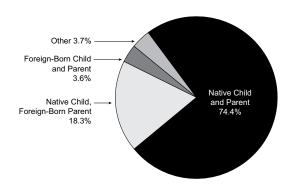
A number of other sociodemographic indicators vary by children's nativity. For instance, native-born children with native-born parents

Children's poverty status varies noticeably were the most likely to have health insurance in of foreign-born parents were the least likely to be insured (59.1 percent). Just over 83 percent of native-born children with foreign-born parents had health insurance coverage (data not shown).1

> 1 The U.S. Census Bureau poverty threshold was \$21,203 for a family of four in 2007. Following the Office of Management and Budget's Statistical Policy Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty.

# Children Under Age 18. by Nativity of Child and Parent(s).\* 2007

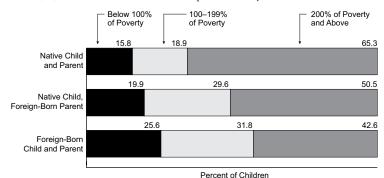
Source (I.2): U.S. Census Bureau, Current Population Survey



\*"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, and "other" includes children with parents whose native status is unknown and foreign-born children with native parents.

# Children Under Age 18, by Poverty Status\* and Nativity of Child and Parent(s),\*\* 2007

Source (I.2): U.S. Census Bureau, Current Population Survey



\*The U.S. Census Bureau poverty threshold for a family of four was \$21,203 in 2007. \*\*"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 U.S.

#### **CHILDREN IN POVERTY**

In 2006, nearly 13 million children under 18 years of age lived in households with incomes below the poverty threshold (\$20,614 for a family of 4 in 2006); this represents 17.4 percent of all children in the United States.

Poverty affects many aspects of a child's life, including living conditions, access to health care, and adequate nutrition, all of which contribute to health status. Black and Hispanic children are particularly vulnerable to poverty. In 2006, 33.4

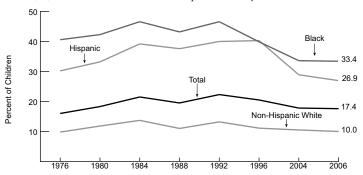
panic children lived in households with incomes below the poverty threshold, compared to 10.0 the past two decades, the percentage of children Black population, while it has remained relatively constant among Whites.

Single-parent families are also particularly vulnerable to poverty: of children living in households with incomes below 100 percent of the

percent of Black children and 26.9 percent of Hispoverty threshold in 2006, 59.6 percent lived in a female-headed household. However, children living in a female-headed household made up percent of non-Hispanic White children. Over only 24.1 percent of the overall child population. Overall, 42.0 percent of children living with a fein poverty has dropped noticeably among the male householder and 20.3 percent of children living with a male householder were living in poverty in 2006 (data not shown).

# Children Under Age 18 Living in Households with Incomes Below 100 Percent of Poverty Threshold,\* by Race/Ethnicity,\*\* 1976-2006

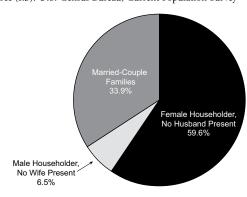
Source (I.3): U.S. Census Bureau, Current Population Survey



\*The U.S. Census Bureau poverty threshold for a family of four was \$20,614 in 2006. \*\*The Current Population Survey currently allows respondents to choose more than one race; however, prior to 2002, only one race was reported. For consistency, figures reported here are only for respondents who chose one race.

# Children Under Age 18 Living in Households with Incomes Below 100 Percent of Poverty Threshold,\* by Family Type, 2006

Source (I.3): U.S. Census Bureau, Current Population Survey



\*The U.S. Census Bureau poverty threshold for a family of four was \$20,614 in 2006.

#### **SCHOOL DROPOUTS**

As of October 2006, there were nearly 3.5 million high school status dropouts<sup>1</sup> in the United States, representing 9.3 percent of the population aged 16-24 years. The dropout rate has generally declined over the past several decades, and after a slight increase in 2004, reached a new low in 2006. This represents a decline in status dropouts of over 35 percent since 1972.

Historically, Hispanic students have had higher dropout rates than youth of other races and ethnicities: in 2006, 22.1 percent of Hispanics aged 16-24 years were status dropouts compared to 5.8 percent of non-Hispanic Whites and 10.7 percent of non-Hispanic Blacks. The high rate among Hispanics, overall, is partly due to the high dropout rate among Hispanics born outside of the United States (36.2 percent). First generation Hispanics—those born in the United States but having at least one parent born outside of the country—have a much lower dropout rate (12.3 percent) than do Hispanics who were born in the United States to American-born parents (12.1 percent; data not shown).

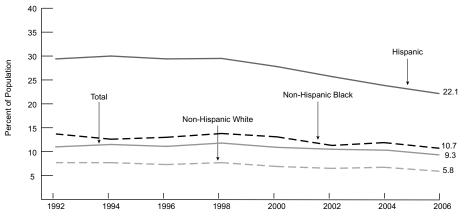
According to the U.S. Department of Commerce, high school dropouts are more likely to be unemployed and, when they are employed, earn less than those who completed high school. In

addition, the National Center for Education Statistics indicates that those who did not complete high school reported worse health outcomes than their peers who did complete high school, as well as reduced access to medical care and higher rates of uninsurance.<sup>2</sup>

- 1 "Status dropouts" refer to 16- to 24-year-olds who are not enrolled in school and have not earned high school credentials (diploma or equivalent).
- 2 National Center for Health Statistics. Health, United States, 2006 with Chartbook on Trends in the Health of Americans. Hyattsville, MD: 2006.

# School Status Dropout\* Rates Among Persons Aged 16–24, by Race/Ethnicity, 1992–2006

Source (I.4): U.S. Department of Education, National Center for Education Statistics



<sup>\* &</sup>quot;Status dropout" refers to 16- to 24-year-olds who are not enrolled in school and have not earned high school credentials (diploma or equivalent).

#### MATERNAL AGE

According to preliminary data, the general fertility rate rose to 69.5 live births per 1,000 women aged 15-44 years in 2007. The birth rate among teenagers aged 15-19 years rose for the second year in a row, to 42.5 births per 1,000 females in this age group. This rate is still 31 percent lower than the most recent peak, reported in 1991 (61.8 births per 1,000). In 2007, the highest birth rate was among women aged 25-29 years (117.5 births per 1,000), followed by women aged 20-24 years (106.4 births per 1,000). Birth rates for women aged 30-34 years (99.9 births per 1,000) and 35-39 years (47.5 per 1,000) were the highest reported in over four de-

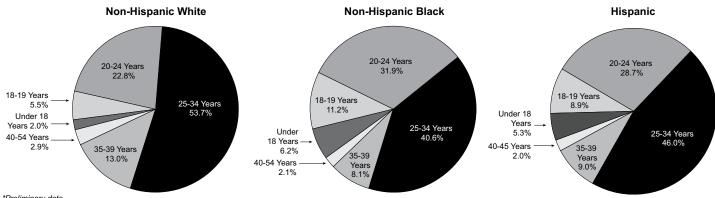
cades. The birth rate for women aged 40-44 years able in 1968 (data not shown). was 9.5 births per 1,000, an increase of more than 70 percent since 1990 (data not shown).

under 18 years of age, and another 7.1 percent respectively, were to teenagers, compared to 7.5 were to teenagers aged 18-19 years. Just over onequarter of births occurred among young adults aged 20-24 years, and exactly one-half were to women aged 25-34 years. Another 11.6 percent of births were to women aged 35-39 years, and 2.6 percent of births were to women aged 40-54 years. Average age at first birth fell to 25.0 years in 2006 (the latest year for which data are available), the first such decline since the measure became avail-

Age distribution of births varies by race/ethnicity. Among non-Hispanic Black and Hispanic In 2007, 3.4 percent of births were to minors women, 17.4 percent and 14.2 percent of births, percent among non-Hispanic Whites. The percentage of births to young adults aged 20-24 years was also higher among non-Hispanic Black and Hispanic women (31.9 percent and 28.7 percent, respectively) than among non-Hispanic White women (22.8 percent). However, non-Hispanic White women had higher birth rates than non-Hispanic Black and Hispanic women in each of the older age categories.

# Distribution of Births, by Race/Ethnicity and Maternal Age, 2007\*

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



\*Preliminary data

Population Characteristics

# WORKING MOTHERS AND **CHILD CARE**

In 2007, 71.0 percent of women with children under 18 years of age were in the labor force (either employed or looking for work) and 67.8 percent were employed. Of mothers with children under 6 years of age, 63.3 percent were in the labor force and 59.6 percent were employed. Of women with children aged 6-17 years, 77.2 percent were in the labor force and 74.3 percent were employed.

Employed mothers with children aged 6-17 years were more likely to be employed full-time

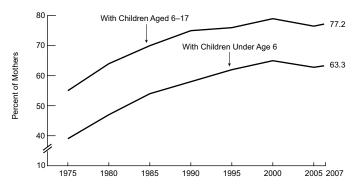
cent versus 72.5 percent). Married mothers with arrangement. Overall, 60 percent of children a spouse present were less likely to be in the labor with at least one child care arrangement received force than women of other marital statuses (68.8 center-based care, 22 percent received care from percent versus 76.5 percent). Married mothers a nonrelative, and 35 percent received care from who were in the labor force, however, were more a relative other than a parent (data not shown). likely than mothers of other marital statuses to be Among children who received child care, 56.9 employed: the unemployment rate among mar-percent of children aged 3-5 years received cenried mothers was only 3.0 percent, compared to a ter-based care compared to 22.8 percent of chilrate of 8.0 percent among mothers of other mari- dren aged 1-2 years and 11.8 percent of children tal statuses (data not shown).

In 2005, 40 percent of children under 6 years of age did not require nonparental child care,

than women with younger children (77.8 per- while 60 percent required at least one child care under 1 year of age.

# Mothers in the Labor Force,\* by Age of Child, 1975-2007

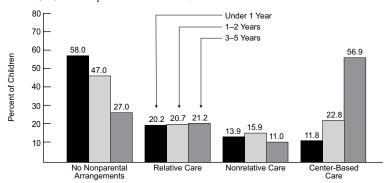
Source (1.6): U.S. Department of Labor, Bureau of Labor Statistics



\*The labor force comprises people who are employed and people who are actively seeking employment.

# Weekly Child Care Arrangements\* for Children Under Age 6,\*\* by Age, 2005

Source (1.7): U.S. Department of Education, National Center for Education Statistics



\*Percents may equal more than 100 because children may have more than one type of nonparental care arrangement. \*\*Includes only children not yet enrolled in kindergarten.

# **NEIGHBORHOOD CHARACTERISTICS**

The environment in which a child grows up can affect his or her physical health, social and emotional functioning, and cognitive development. The availability of neighborhood amenities, such as playgrounds, community centers, and libraries provides children with opportunities to be active and engaged in the broader community. Poor conditions, however, such as dilapidated housing, vandalism, and litter or garbage on the street may have an adverse impact, either directly or indirectly, on a child's overall well-being.

neighborhoods that had four neighborhood amenities, including sidewalks, parks or playgrounds, recreation or community centers, and a library, while 28.6 percent of children lived in neighborhoods with at least one indicator of poor conditions, such as vandalism, litter on the street, or dilapidated housing.

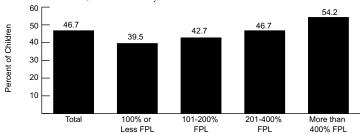
The percentage of children living in neighborhoods with amenities and poor conditions varied significantly by poverty status. Among children with household incomes of 100 percent or less of the Federal Poverty Level (FPL), 39.5 percent

In 2007, 46.7 percent of children lived in lived in neighborhoods with four neighborhood amenities, compared to 46.7 percent of children with household incomes of 201-400 percent FPL and 54.2 percent of children with incomes of more than 400 percent FPL.

> Non-Hispanic Black children were most likely to live in neighborhoods with one or more poor conditions (37.0 percent), and Hispanic children were second most likely (33.5 percent). Non-Hispanic White children were least likely to live in neighborhoods with one or more poor conditions (24.4 percent).

# Children Under Age 18 with Four Neighborhood Amenities,\* by Poverty Status,\*\* 2007

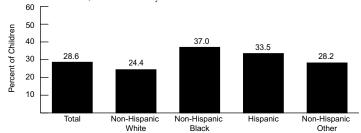
Source (I.8): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children's Health



\*Amenities include sidewalks or walking paths: park or playground area: recreation center. community center or boys' or airls' club: and library or bookmobile. \*\*Federal Poverty Level (FPL) was equal to \$20,650 for a family of four in 2007; FPL is set by the U.S. Department of Health and Human Services for determining income eligibility in public assistance programs.

# Children Under Age 18 with One or More Poor Neighborhood Conditions,\* by Race/Ethnicity, 2007

Source (I.8): 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



\*Conditions include litter or garbage on the street or sidewalk; poorly kept or dilapidated housing; and vandalism.

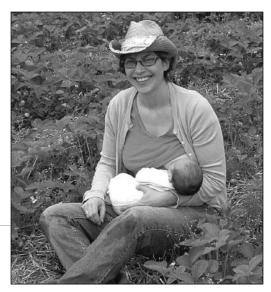
# **Health Status**

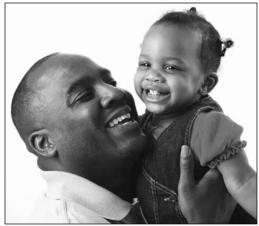
Monitoring the health status of infants, children, and adolescents allows health professionals, program planners, and policymakers to assess the impact of past and current health intervention and prevention programs and identify areas of need within the child population. Although indicators of child health and well-being are often assessed on an annual basis, some surveillance systems collect data at intervals, such as every 2, 3, 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. 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**





#### BREASTFEEDING

Breastfeeding has been shown to promote the health and development of infants, as well as their immunity to disease, and may provide a number of maternal health benefits. For this reason, the American Academy of Pediatrics 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 of life.

Breastfeeding initiation rates in the United States have increased steadily since the early 1990s. In 2007, the parents of 75.5 percent of children aged newborn to 5 years reported that

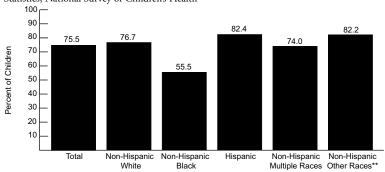
dren were most likely to have been breastfed ing varied by family income, with 10.6 percent of (82.4 percent), followed by children of other races, including Asian/Pacific Islanders and Native of the Federal Poverty Level (FPL) being exclu-Americans/Alaska Natives (82.2 percent). Non-sively breastfed through 6 months, compared to Hispanic Black children were the least likely to be breastfed (55.5 percent). Breastfeeding rates tend to increase with maternal age, higher educational achievement, and higher income.

Rates of exclusive breastfeeding are significantly lower than rates of breastfeeding initiation. In 2007, the parents of only 12.4 percent of and socioeconomic factors, such as maternal age children aged 6 months to 5 years reported that their child was exclusively breastfed for the first 6

the child had ever been breastfed. Hispanic chilmonths of life. The rate of exclusive breastfeedchildren with family incomes below 100 percent 14.7 percent of children with family incomes of 400 percent FPL or above. Exclusive breastfeeding rates have not shown the same improvement over time as have breastfeeding initiation rates, and as with breastfeeding initiation, exclusive breastfeeding varies by a number of demographic and education.

#### Breastfeeding\* among Children Under Age 6, by Race/Ethnicity, 2007

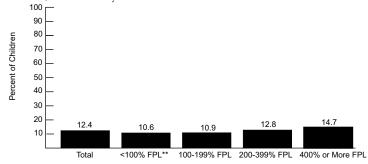
Source (I.8): Health Resources and Services Administration, Maternal and Child Health Bureau and Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Children's Health



\*Ever breastfed. \*\*Includes Asian/Pacific Islanders, American Indian/Alaska Natives, and children of other races

# Exclusive\* Breastfeeding among Children Aged 6 Months to 5 Years, by Income, 2007

Source (I.8): 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



\*Fed only breast milk for the first 6 months of life. \*\*The Federal Poverty Level, as determined by the U.S. Department of Health and Human Services, was \$20,650 for a family of four in 2007.

#### LOW BIRTH WEIGHT

Low birth weight is one of the leading causes of neonatal mortality (death before 28 days of age). Low birth weight infants are more likely to experience long-term disability or to die during the first year of life than are infants of normal weight.

According to preliminary data, 8.2 percent of infants were born low birth weight (less than 2,500 grams, or 5 pounds 8 ounces) in 2007; this represents a slight decrease from the rate recorded in 2006 (8.3 percent), which was the sixth consecutive year of increase and the highest rate recorded in four decades.

The increase in multiple births, more than half of which are delivered at less than 2,500 grams, has strongly influenced the increase in low birth weight; however, rates of low birth weight are also on the rise for singleton births.

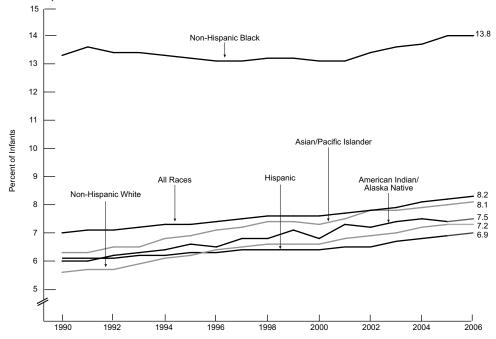
In 2007, the low birth weight rate was much higher among infants born to non-Hispanic Black women (13.8 percent) than among infants of other racial/ethnic groups. The next highest rate, which occurred among infants born to Asian/Pacific Islanders, was 8.1 percent, followed by a rate of 7.5 percent among American Indian/Alaska Natives. Low birth weight occurred among 7.2 percent of infants born to non-Hispanic White women, while infants of Hispanic women experienced the rate remained steady or decreased for infants born to mothers of all racial/ethnic groups in 2007.

Low birth weight also varied by maternal age. In 2006 (the latest year for which data are available), the rate of low birth weight was highest

lowest rate (6.9 percent). The low birth weight among babies born to women aged 40-54 years (20.3 percent), followed by babies born to women under 15 years of age (13.4 percent.) The lowest rates occured among babies born to mothers aged 25-29 years and 30-34 years (7.5 and 7.6 percent, respectively; data not shown).

#### Low Birth Weight Among Infants, by Maternal Race/Ethnicity, 1990-2007\*

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



\*Data for 2007 are preliminary.

#### **VERY LOW BIRTH WEIGHT**

According to preliminary data, 1.5 percent of live births were among very low birth weight infants (less than 1,500 grams, or 3 pounds 4 ounces) in 2007. The proportion of very low birth weight infants has slowly climbed from just over one percent in 1980.

Infants born at such low birth weights are approximately 100 times more likely to die in the first year of life than are infants of normal birth weight (above 5 pounds 8 ounces). Very low birth weight infants who survive are at a significantly increased risk of severe problems, including physical and visual difficulties, developmental delays, and cognitive impairment, requiring increased levels of medical, educational, and parental care.

Infants born to non-Hispanic Black women are more than two and a half times more likely than infants born to mothers of other racial/ ethnic groups to be born very low birth weight. Among infants born to non-Hispanic Black women, 3.2 percent were very low birth weight in 2006, compared to 1.1 percent of infants born to Asian/Pacific Islander women, 1.2 percent of infants born to non-Hispanic Whites and Hispanics, and 1.3 percent of infants born to American Indian/Alaska Native women. This difference is a major contributor to the disparity in infant mor-

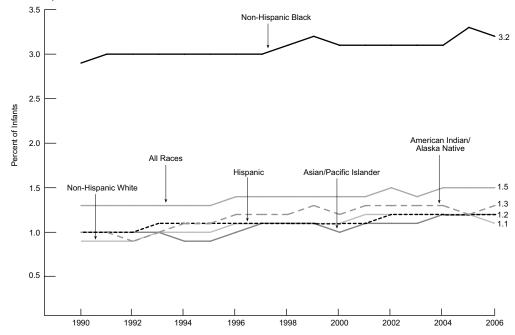
tality rates between non-Hispanic Black infants 54 years (3.5 percent). Mothers under 15 years of and infants of other racial/ethnic groups.

In 2006 (the latest year for which data are are available), the rate of very low birth weight was highest among babies born to mothers aged 45-

54 years (3.5 percent). Mothers under 15 years of age also had high rates of very low birth weight (3.1 percent.) The rate was lowest among mothers aged 25-29 years (1.3 percent; data not shown).

# Very Low Birth Weight Among Infants, by Race/Ethnicity, 1990-2007\*

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



\*Data for 2007 are preliminary

#### MATERNAL MORTALITY

The rate of maternal mortality in the United States declined dramatically over the last century; however, an increase in the rate has become evident in the past several decades. In 2006, the maternal mortality rate was 13.3 deaths per 100,000 live births, compared to a low of 6.6 in 1987. Some of this increase may be due to changes in the coding and classification of maternal deaths.

In 2006, there were a total of 569 maternal deaths (those resulting from complications during pregnancy, childbirth, or direct or indirect

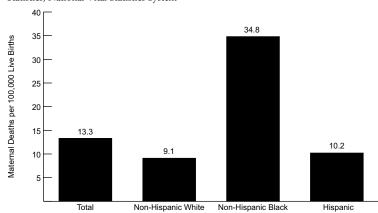
obstetric causes up to 42 days after delivery or termination of pregnancy). The maternal mortality rate among non-Hispanic Black women was more than 3 times the rate among non-Hispanic White women (34.8 versus 9.1 per 100,000).

The risk of maternal death increases with age, regardless of race or ethnicity. In 2006, the maternal mortality rate of women aged 35 years and over (29.3 per 100,000) was nearly 3 times the rate of women aged 20-24 years (10.2 per 100,000) and nearly 6 times the rate of women under 20 years of age (5.0 per 100,000).

Causes of maternal death are classified as direct, indirect, or unspecified. Some of the most common direct causes include complications related to the puerperium, or period immediately after delivery (2.6 per 100,000), eclampsia and preclampsia (1.3 per 100,000), and hemorrhage (0.9 per 100,000). Indirect causes occured at a rate of 3.0 per 100,000 in 2006, and comprised deaths from pre-exiting conditions complicated by pregnancy.

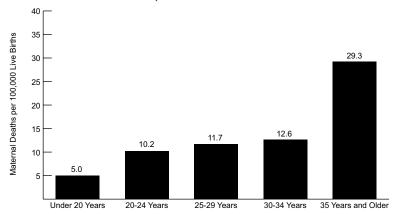
#### Maternal Mortality Rates, by Race/Ethnicity, 2006

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



#### Maternal Mortality Rates, by Age, 2006

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



# NEONATAL AND POSTNEONATAL MORTALITY

**Neonatal**. In 2006, 18,989 infants died before reaching 28 days of age, representing a neonatal mortality rate of 4.5 deaths per 1,000 live births. This rate remains unchanged from the previous year.

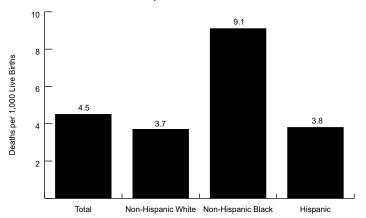
Neonatal mortality is generally related to short gestation and low birth weight, congenital malformations, and conditions originating in the perinatal period, such as birth trauma or infection. Neonatal mortality rates vary by race and ethnicity. In 2006, the neonatal mortality rate among non-Hispanic Black infants was 9.1 per 1,000 live births, more than twice the rate among non-Hispanic White and Hispanic infants (3.7 and 3.8 per 1,000, respectively).

**Postneonatal**. In 2006, 9,538 infants died between the ages of 28 days and 1 year, representing a postneonatal mortality rate of 2.2 deaths per 1,000 live births. This rate is slightly lower than the rate of 2.3 deaths per 1,000 live births reported in 2005.

Postneonatal mortality is generally related to Sudden Infant Death Syndrome (SIDS), congenital malformations, and unintentional injuries. Postneonatal mortality varies by race and ethnicity. In 2006, the highest rate of postneonatal mortality was reported among non-Hispanic Black infants (4.7 per 1,000). Non-Hispanic White and Hispanic infants had rates of 1.9 and 1.7 per 1,000, respectively.

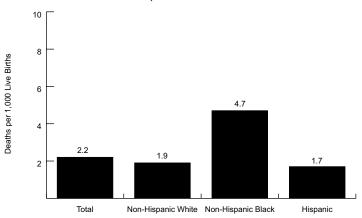
#### Neonatal Mortality Rates, by Maternal Race/Ethnicity, 2006

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



#### Postneonatal Mortality Rates, by Maternal Race/Ethnicity, 2006

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



#### INFANT MORTALITY

In 2006, 28,527 infants died before their first birthday, representing an infant mortality rate of 6.7 deaths per 1,000 live births. The leading cause of infant mortality was congenital anomalies, which accounted for 20 percent of deaths, followed by disorders related to short gestation, which accounted for another 17 percent of deaths.

The infant mortality rate began a substantial decline in the late 19th and early 20th century. Some factors in this early decline included economic growth, improved nutrition, new sanitary measures, and advances in knowledge about infant care. More recent advances in knowledge that contributed to a continued decline included the approval of synthetic surfactants and the recommendation that infants be placed on their backs to sleep. However, the decades-long decline in infant mortality began to level off in 2000, and the rate has remained relatively steady in the years since.

In 2006, the mortality rate among non-Hispanic Black infants was 13.8 deaths per 1,000 live births. This is two and one-half times the rate among non-Hispanic White and Hispanic infants (5.6 and 5.5 per 1,000, respectively). Although the infant mortality rates among both non-His-

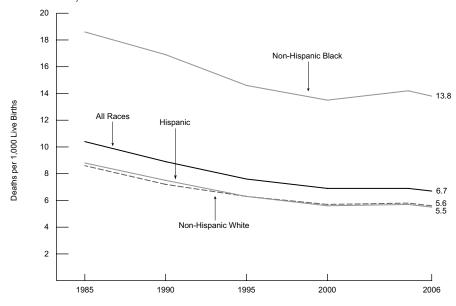
panic Whites and non-Hispanic Blacks have de- health and support services to pregnant women clined over the last century, the disparity between and infants with the goal of improving children's the two races remains largely unchanged.

The Maternal and Child Health Block Grant mortality. and MCHB's Healthy Start program provide

health outcomes and reducing infant and child

#### Infant Mortality Rates,\* by Maternal Race/Ethnicity, 1985-2006

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



\*Under 1 year of age.

# INTERNATIONAL INFANT MORTALITY

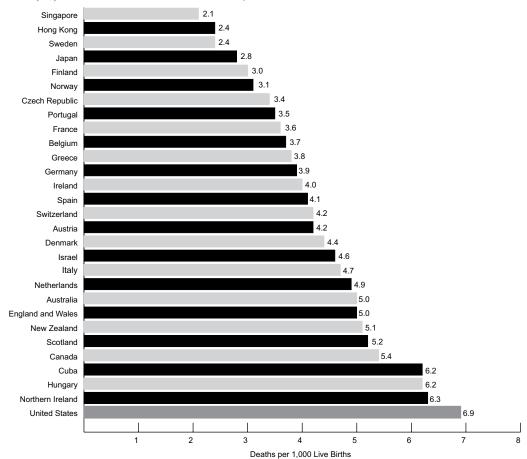
In 2005, the United States infant mortality rate ranked below that of many other industrialized nations, with a rate of 6.9 deaths per 1,000 live births. This represents a slight increase from the rate of 6.8 per 1,000 in 2004, but is still considerably less than the rate of 26.0 per 1,000 reported in 1960.

Differences in infant mortality rates among industrialized nations may reflect disparities in the health status of women before and during pregnancy, as well as the quality and accessibility of primary care for pregnant women and infants. However, some of these differences may be due, in part, to the international variation in the definition, reporting, and measurement of infant mortality.

In 2005, the U.S. infant mortality rate was more than twice that of seven other industrialized countries, including Singapore, Hong Kong, Sweden, Japan, Finland, Norway, and the Czech Republic. Singapore had the lowest rate (2.1 per 1,000), followed by Hong Kong and Sweden (2.4 per 1,000).

#### International Infant Mortality Rates, Selected Countries, 2005

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









#### **HEALTH STATUS**

The general state of a child's health as perceived by their parents is a useful measure of the child's overall health and ability to function. The 2007 National Survey of Children's Health asked parents to rate their child's health status as excellent, very good, good, fair, or poor. Overall, the parents of 84.4 percent of children under 18 years of age reported that their child's health was excellent or very good. This varied, however, by the child's race and ethnicity.

Non-Hispanic White children and non-Hispanic children of multiple races were most likely

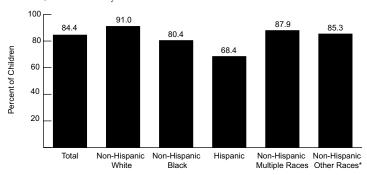
to be reported in excellent or very good health (the question was not asked of children under 1 (91.0 and 87.9 percent, respectively), followed by year of age). non-Hispanic children of other races (85.3 perreported in excellent or very good health (68.4 Hispanic Black children were reported in excellent or very good health.

of their child's teeth as excellent, very good, good, fair, or poor. Overall, the parents of 70.7 percent of children aged 1-17 reported that their child's teeth were in excellent or very good condition

The child's oral health status also varied with cent). Hispanic children were least likely to be race and ethnicity. More than 80 percent of non-Hispanic White children and 76.9 percent of percent). Slightly more than 80 percent of non- non-Hispanic children of multiple races were reported to have excellent or very good oral health, compared to 62.5 percent of non-Hispanic Black Parents were also asked to rate the condition children and 49.3 percent of Hispanic children.

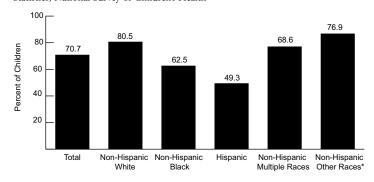
# Children Under Age 18 in Excellent or Very Good Health, by Race/Ethnicity, 2007

Source (I.8): 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



# Children Under Age 18 in Excellent or Very Good Oral Health, by Race/Ethnicity, 2007

Source (I.8): 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



\*Includes Asian/Pacific Islander, American Indian/Alaska Natives, and children of other races.

# VACCINE-PREVENTABLE DISEASES

The number of reported cases of vaccine-preventable diseases has generally decreased over the past several decades. In 2006, there were no reported cases of diphtheria or polio in the United States population, and no cases of tetanus among children under 5 years of age. Among children in this age group, there were also no reported cases of acquired rubella and only one case of congenital rubella.

From 2005 to 2006, the number of reported cases of hepatitis A and pertussis 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 October of 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 for children. With regard to pertussis, the number of cases among young children decreased by nearly 50 percent over the previous year, although the CDC reports that this is likely due to the cyclical

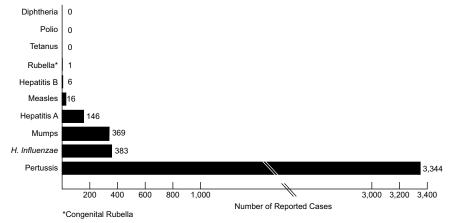
nature of the disease and not an increase in immunization. The highest reported rate occurred among infants under 6 months of age, a population that is too young to be fully vaccinated.

While the number of reported cases of several vaccine-preventable diseases decreased between 2005 and 2006, the number of reported cases of measles and *H. Influenzae* increased slightly. The number of reported cases of mumps increased by a factor of 17 due to an outbreak, which was largely focused in six contiguous Midwestern

States. In response, the CDC updated criteria for mumps immunity and vaccination recommendations. Reported cases of hepatitis B remained virtually unchanged.

# Reported Cases of Selected Vaccine-Preventable Diseases Among Children Under Age 5, 2006

Source (II.4): Centers for Disease Control and Prevention, National Notifiable Diseases Surveillance System



#### PEDIATRIC AIDS

Acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV), which damages or kills the cells that are responsible for fighting infection. AIDS is diagnosed when HIV has weakened the immune system enough that the body has a difficult time fighting infections. Through 2007, an estimated 9,209 AIDS cases in children younger than 13 had ever been reported in the United States. Pediatric AIDS cases represent less than one percent of all AIDS cases ever reported.

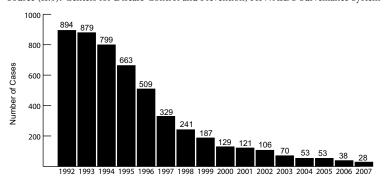
were diagnosed among children under age 13. treatments and obstetric procedures. The number of new pediatric AIDS cases has declined substantially since 1992, when an estimated 894 new cases were reported. A major factor in this decline is the increasing use of antiretroviral therapy before, during, and after pregnancy to reduce perinatal transmission of HIV. In addition, the Centers for Disease Control and Prevention released new and updated materials in 2004 to further promote universal prenatal HIV testing. It is expected that the perinatal transmission rate

In 2007, an estimated 28 new AIDS cases will continue to decline with increased use of

Racial and ethnic minorities are disproportionately represented among pediatric AIDS cases. Non-Hispanic Black children account for over 60 percent of all pediatric AIDS cases ever reported, but compose only about 15 percent of the total U.S. population in this age group.

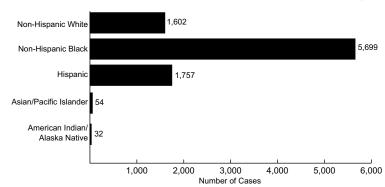
# Estimated Numbers of AIDS Cases in Children Under Age 13, by Year of Diagnosis, 1992–2007

Source (II.5): Centers for Disease Control and Prevention, HIV/AIDS Surveillance System



# **Estimated Numbers of AIDS Cases Ever Reported in Children** Under Age 13, by Race/Ethnicity, Through 2007\*

Source (II.5): Centers for Disease Control and Prevention, HIV/AIDS Surveillance System



\*Includes children with a diagnosis of AIDS from the beginning of the epidemic through 2007, but does not include 58 children of unknown or multiple races.

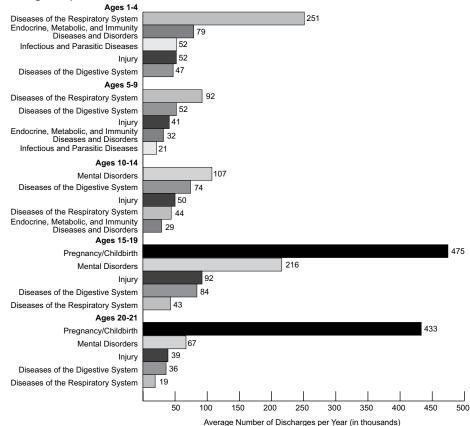
#### **HOSPITALIZATION**

In 2006, there were nearly 3.5 million hospital discharges among youth aged 1–21 years, equaling 4.0 hospital discharges per 100 children. Hospital discharge rates generally decrease with age until early adolescence, and then begin to increase.

While injuries are the leading cause of death among children and adolescents older than 1 year of age, they were not the most common cause of hospitalization for any age group of children. In 2005-2006, diseases of the respiratory system were the most common cause of hospitalization for children aged 1-4 and 5-9 years, accounting for 39 and 24 percent of discharges, respectively. Mental disorders were the most common cause of hospitalization among children aged 10-14 years, accounting for 24 percent of discharges. Among adolescents and young adults aged 15-19 and 20-21 years, pregnancy and childbirth was the most common cause of hospitalization, accounting for 42 and 64 percent of discharges, respectively.

#### Major Causes of Hospitalization, by Age, 2005-2006

Source (II.6): Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey



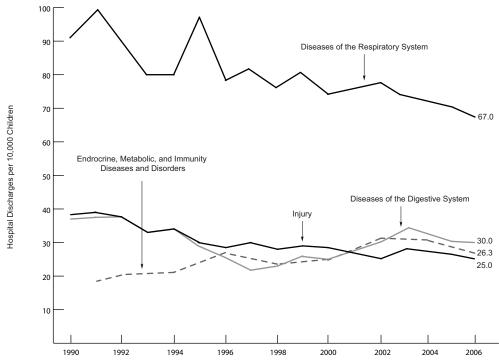
#### **HOSPITALIZATION TRENDS**

Four types of health problems—respiratory diseases, digestive diseases, injuries, and endrocrine, metabolic, and immunity diseases and disorders—accounted for 51 percent of hospital discharges among children aged 1-14 years in 2006. Since 1985, overall hospital discharge rates for children in this age group have declined by 38 percent, which is reflected in decreases in discharge rates for each of those three categories.

Between 1990 and 2006, hospital discharge rates for diseases of the respiratory system declined 26.4 percent for children aged 1-14 years (from 91 per 10,000 to a low of 67 per 10,000). During this period, the rate of discharges due to injury also declined, from 38 to 25 per 10,000, or 34.2 percent. Similarly, the hospital discharge rate among children for diseases of the digestive system dropped from 37 to 30 per 10,000, or 19.0 percent. The rate of discharges due to endrocrine, metabolic, and immunity diseases and disorders, however, increased 36.8 percent, from 19 to 26 per 10,000. This category of diseases and conditions includes thyroid gland disorders, diabetes, nutritional deficiencies, and overweight and obesity.

# Hospitalization Rates Among Children Aged 1–14, by Selected Diagnosis, 1990–2006

Source (II.6): Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey



#### ABUSE AND NEGLECT

State child protective services (CPS) agencies received approximately 3.3 million referrals, involving an estimated 6.0 million children, alleging abuse or neglect in 2006. More than half of these reports were made by community professionals, such as teachers and other educational personnel, police officers, medical personnel, and daycare providers.

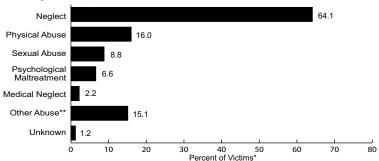
Investigations determined that an estimated 905,000 children were victims of abuse or neglect in 2006, equaling a victimization rate of 12.1 per 1,000 children in the population. Neglect was the by 64.1 percent of victims), followed by physical abuse (16.0 percent). Other types of abuse included sexual abuse, psychological maltreatment, medical neglect, and categories of abuse based on specific State laws and policies. Some children suffered multiple types of maltreatment.

Victimization rates were highest among young children. In 2006, the rate of victimization among children under 1 year of age was 24.4 per 1,000 children of the same age; the rate declined steadily as age increased (data not shown). Younger children were more likely than older children

most common type of maltreatment (experienced to be victims of neglect, while older children were more likely to be physically or sexually abused. Almost 80 percent of perpetrators of abuse or neglect were parents of the victim. Remaining types of perpetrators included other relatives (6.7 percent), unmarried partners of parents (3.8 percent), and professionals such as daycare workers and residential facility staff (0.9 percent). Foster parents accounted for 0.4 percent of perpetrators, while friends and neighbors accounted for 0.5 percent.

# Abuse and Neglect Among Children Under Age 18, by Type of Maltreatment, 2006

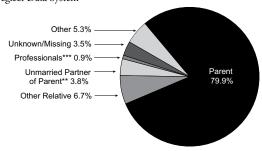
Source (II.7): Administration for Children and Families, National Child Abuse and Neglect Data System



\*Percentages equal more than 100 because some children were victims of more than one type of abuse or neglect. \*\*Includes abandonment, threats of harm, and congenital drug addiction.

# Perpetrators of Child Abuse and Neglect, by Relationship to Victim, 2006\*

Source (II.7): Administration for Children and Families, National Child Abuse and Neglect Data System



\*Based on 47 states reporting. \*\*Defined as someone who has a relationship with the parent and lives in the household with the parent and maltreated child, \*\*\*Includes residential facility staff, child daycare providers, and other professionals.

#### CHILD MORTALITY

In 2006, 10,780 children between the ages of 1 and 14 years died of various causes; this was nearly 600 fewer than the previous year. The overall mortality rate among 1- to 4-year-olds was 28.4 per 100,000 children in that age group, and the rate among 5- to 14-year-old children was 15.2 per 100,000. Each of these rates is approximately one percentage point lower than the previous year.

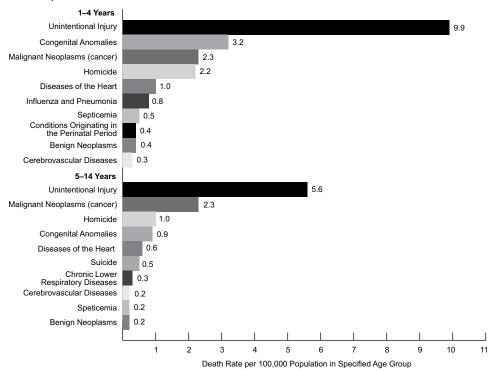
Unintentional injury continued to be the leading cause of death among both 1- to 4-yearolds and 5- to 14-year-olds, accounting for 35 percent and 37 percent of all deaths, respectively. Among the younger group, the next leading cause of death was congenital anomalies (birth defects), followed by malignant neoplasms (cancer), homicide, and diseases of the heart. Among the older group, the second leading cause of death was malignant neoplasms, followed by homicide and congenital anomalies.

Mortality rates were higher among males than females for both the 1- to 4-year-old and 5- to 14-year-old age groups (30.5 versus 26.3 and 17.6 versus 12.8 per 100,000, respectively, in 2006; data not shown). For both age groups, non-Hispanic Black children had the highest mortality rates (44.3 per 100,000 for 1- to 4-year-olds and 21.9 for 5- to 14-year-olds). Non-Hispanic

White and Hispanic children had much lower per 100,000 for 5- to 14-year-olds. Among nonmortality rates. Among Hispanics, rates were Hispanic Whites, rates were 25.0 and 14.0 per 26.4 per 100,000 for 1- to 4-year olds and 14.2 100,000, respectively (data not shown).

## Leading Causes of Death Among Children Aged 1-14, 2006

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



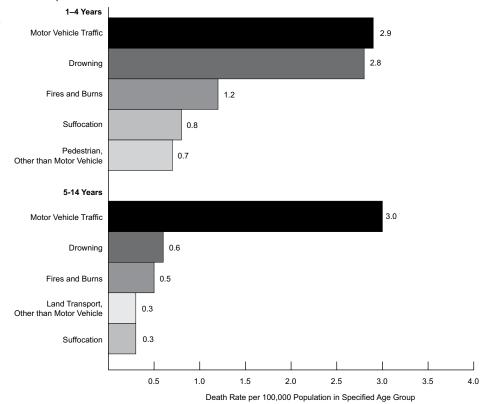
# CHILD MORTALITY DUE TO INJURY

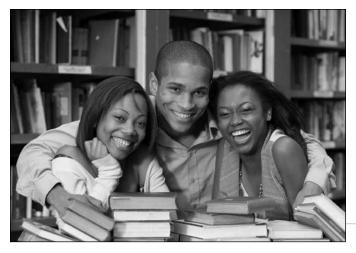
In 2006, unintentional injuries were the cause of death for 1,610 children aged 1-4 years and 2,258 children aged 5-14 years. Motor vehicle traffic, drowning, and fires and burns were the most common causes of unintentional injury death among children in both age groups. Unintentional injury due to motor vehicle traffic caused 2.9 and 3.0 deaths per 100,000 children aged 1-4 and 5-14 years, respectively.

In addition, 366 children aged 1-4 years were victims of homicide in 2006, while 609 children aged 5-14 years were victims of homicide or suicide (data not shown).

#### Deaths Due to Unintentional Injury Among Children Aged 1-14, 2006

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





### **Health Status - Adolescents**



### ADOLESCENT CHILDBEARING

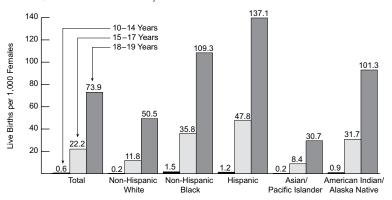
According to preliminary data, the birth rate among adolescents aged 15-19 years increased to 42.5 births per 1,000 females in 2007, from 41.9 per 1,000 the previous year. This was the first increase since the most recent peak in 1991 (61.8 births per 1,000), but still represents an overall decrease of 31 percent since that year. The birth rate among adolescents aged 10-14 years decreased to 0.6 per 1,000, which represents a decline of more than 50 percent since 1991. Teenage birth rates were highest among older adolescents, aged 18-19 years, at 73.9 per 1,000.

Teenage birth rates have historically varied considerably by race/ethnicity. Among adolescents aged 15-19 years, Asian/Pacific Islanders had the lowest birth rate in 2006 (17.3 per 1,000), followed by non-Hispanic Whites (27.2 per 1,000). Hispanic females had the highest birth rate in this age group (81.7 per 1,000), and also the lowest percentage decline since 1991 (21.9 percent). Non-Hispanic Black females had the second highest birth rate among those aged 15-19 years (64.3 per 1,000), but the highest percentage decline since 1991 (45.8 percent).

Among adolescents aged 10-14 years, non-Hispanic Black females had the highest birth rate (1.5 per 1,000), followed by Hispanic females (1.2 per 1,000) and American Indian/Alaska Native females (0.9 per 1,000). Non-Hispanic White and Asian/Pacific Islander females had the lowest birth rates among those aged 10-14 years (0.2 per 1,000).

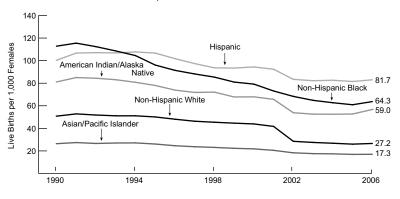
# Birth Rates Among Adolescent Females Aged 10-19, by Age and Race/Ethnicity, 2007\*

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



# Birth Rates Among Adolescent Females Aged 15–19, by Race/Ethnicity, 1990–2007\*

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



\*Preliminary data

#### **SEXUAL ACTIVITY**

In 2007, 47.8 percent of high school students reported ever having had sexual intercourse, representing a slight increase from the previous year, while the remaining 52.2 percent were abstinent. Overall, 35 percent of students reported that they were currently sexually active (had intercourse at least once in the 3 months before the survey): 21.5 percent were currently sexually active and reported using a condom during their last sexual intercourse, while 13.5 percent were currently sexually active and reported not using a condom during their last encounter (i.e., 61 percent of

sexually active students used a condom during grade students, 52.6 percent reported being curtheir last encounter). grade students, 52.6 percent reported being currently sexually active: 28.5 percent were currently

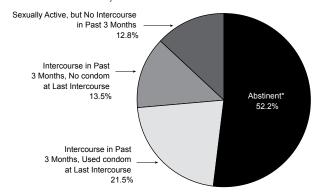
Sexual activity and condom use vary by race and ethnicity. In 2007, non-Hispanic Black students were most likely to report ever having sexual intercourse (66.5 percent), and most likely to report using a condom during their last sexual encounter (67.3 percent of currently sexually active students). Hispanic students were second most likely to report ever having had sexual intercourse (52.0 percent), followed by non-Hispanic White students (43.7 percent; data not shown).

In 2007, sexual activity increased with grade level, while condom use decreased. Among  $12^{th}$ 

grade students, 52.6 percent reported being currently sexually active: 28.5 percent were currently sexually active and used a condom during their last intercourse, while 24.1 percent were sexually active and did not use a condom (i.e., just over half of sexually active 12<sup>th</sup> graders used a condom during their last encounter). In contrast, 20.1 percent of 9<sup>th</sup> graders were sexually active: 6.2 percent of 9<sup>th</sup> graders were sexually active and not using a condom, while 13.9 percent were sexually active and used a condom during their last sexual encounter (i.e., almost 70 percent of sexually active 9<sup>th</sup> graders used a condom during their last encounter).

### Sexual Activity Among High School Students, 2007

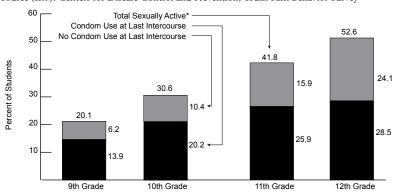
Source (II.9): Centers for Disease Control and Prevention, Youth Risk Behavior Survey



\*Have never had sexual intercourse.

# Condom Use Among Sexually Active High School Students, by Grade. 2007

Source (II.9): Centers for Disease Control and Prevention, Youth Risk Behavior Survey



\*Had sexual intercourse during the three months preceding the survey.

# SEXUALLY TRANSMITTED INFECTIONS

In general, adolescents (aged 15-19 years) and young adults (aged 20-24 years) are at much higher risk than older adults of contracting sexually transmitted infections (STIs), such as chlamydia, gonorrhea, and genital human papillomavirus (HPV).

Chlamydia continues to be the most common STI among adolescents and young adults, with rates of 1,674 and 1,796 cases per 100,000, respectively, in 2006. Rates were highest among non-Hispanic Blacks, followed by American Indian/Alaska Natives. Rates of gonorrhea were 459 and 528 per 100,000 adolescents and young

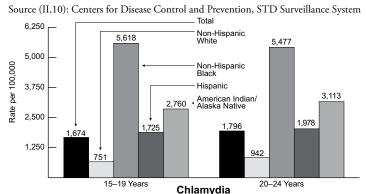
adults, respectively, and were also highest among non-Hispanic Blacks and American Indian/Alaska Natives.

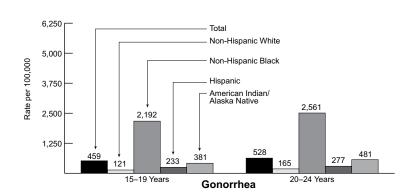
HPV is the most common STI in the United States. Unlike chlamydia and gonorrhea, cases of HPV are not required to be reported to the CDC. However, a recent study indicated that 24.5 percent of females aged 14-19 years and 44.8 percent of those aged 20-24 years had an HPV infection in 2003-2004.¹ There are many different types of HPV, some of which can cause cancer. Although cervical cancer in women is the most serious health problem caused by HPV, it is highly preventable with routine Pap tests and follow-up care. A vaccine for certain types of HPV was first

approved in 2006 by the Food and Drug Administration (FDA) for use in females aged 9-26 years.<sup>2</sup> In 2007, 25 percent of females aged 13-17 years initiated the three-dose series.<sup>3</sup>

- 1 Dunne EF, Unger ER, Sternberg M, McQuillan G, Swan DC, Patel SS, Markowitz LE. Prevalence of HPV infection among females in the United States. JAMA. 2007 Feb:297(8):876-8.
- 2 Centers for Disease Control and Prevention, Division of STD Prevention. HPV and HPV vaccines: information for healthcare providers. June 2006. Available from: http:// www.cdc.gov/std/hpv/STDFact-HPV-vaccine-hcp.htm, viewed 9/3/08.
- 3 Centers for Disease Control and Prevention. Vaccination coverage among adolescents aged 13-17 years limited states, 2007. MMWR 2008; 57:1100.

### Reported Rates of Sexually Transmitted Infections Among Adolescents and Young Adults, by Age and Race/Ethnicity, 2006





# ADOLESCENT AND YOUNG ADULT HIV/AIDS

Acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV), which damages or kills the cells that are responsible for fighting infection. AIDS is diagnosed when HIV has weakened the immune system enough that the body has a difficult time fighting infections.

An estimated 5,259 people aged 13-24 years were diagnosed with HIV/AIDS<sup>1</sup> in 2006, representing 14.3 percent of all new cases. While the number of diagnoses among children aged 13-14 years fluctuates from year to year, the number of diagnoses among the older age groups have increased steadily over the past few years. Diagnoses of HIV/AIDS among adolescents aged 15-19 years and young adults aged 20-24 years have increased 34 and 23 percent, respectively, since 2003.

In 2006, there were 211 deaths of adolescents and young adults with AIDS, representing 1.4 percent of all deaths of persons with AIDS. Since the beginning of the epidemic, an estimated 10,096 persons aged 13-24 years have died with the disease. Deaths of persons with AIDS have generally decreased in recent years, due in part to the availability of effective prescription drugs to

combat the disease.

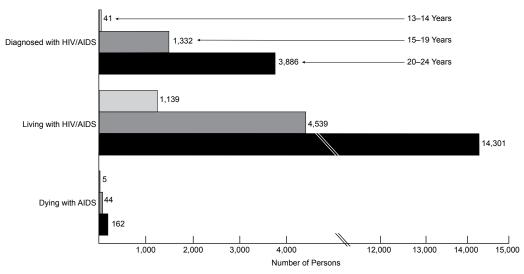
With an increase in diagnoses and a decrease in deaths, the number of people living with HIV/AIDS has increased. In 2006, there were an estimated 19,979 people aged 13-24 years living with HIV/AIDS, representing 3.9 percent of all cases. Overall, the number of adolescents and young

adults living with HIV/AIDS has increased 19 percent since 2003.

1 Includes persons with a diagnosis of HIV infection only, a diagnosis of HIV infection and a later AIDS diagnosis, and concurrent diagnoses of HIV infection and AIDS in 33 states and 5 dependent areas with confidential name-based reporting.

# Number of Persons Aged 13-24 Diagnosed with and Living with HIV/AIDS\* and Dying with AIDS, by Age, 2006

Source (II.5): Centers for Disease Control and Prevention, HIV/AIDS Surveillance System



\*Includes persons with a diagnosis of HIV infection only, a diagnosis of HIV infection and a later AIDS diagnosis, and concurrent diagnoses of HIV infection and AIDS in 33 states and 5 dependent areas with confidential name-based reporting.



#### PHYSICAL ACTIVITY

veillance System show that 34.7 percent of high school students met currently recommended levels of physical activity in 2007. At that time, the recommendation for this age group was any kind of physical activity that increases heart rate and causes the child to breathe hard for some of the time for a total of at least 60 minutes per day, 5 or more days per week. Non-Hispanic White students were the most likely to meet the recommended levels of physical activity (37.0 percent), followed by non-Hispanic Black students (31.1 percent); Hispanic students were least likely to meet recommended levels (30.2 percent). Overall, 24.9 percent of students did not participate in 60 or more minutes of physical activity on any day in the week before the survey.

Nationwide, 53.6 percent of high school students attended physical education classes on 1 or more days a week in 2007. This rate drops dramatically with increasing grade: 66.8 percent of 9<sup>th</sup> grade students attended PE class, compared to 41.5 percent of 12th grade students. The percentage of students attending daily physical education classes has dropped from 42 percent in 1991 to 30.3 percent in 2007. Again, younger students were much more likely to attend daily classes

Results from the Youth Risk Behavior Sur- compared to 23.8 percent of 12th graders; data not shown).

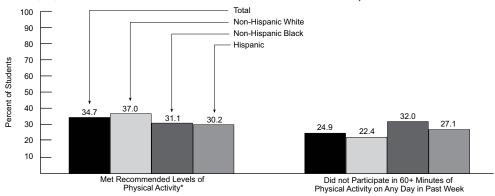
> In 2007, 56.3 percent of high school students reported playing on at least one sports team in the past year. This was also more common among children in younger grades (59.2 percent of 9th graders) than in the older grades (49.0 percent of 12th graders; data not shown). High school students were also asked about sedentary activities, such as using a computer or watching television.

than older students (40.1 percent of 9th graders One-quarter of students reported using a computer for something other than school work for 3 or more hours per day on an average school day, while 35.4 percent of students reported watching television for 3 or more hours on an average school day.

> The HealthierUS Initiative—available online at www.healthierus.gov—provides accurate information about physical fitness, nutrition, and disease prevention to help Americans of all ages make healthy decisions.

#### Physical Activity Among High School Students, by Race/Ethnicity, 2007

Source: (II.9): Centers for Disease Control and Prevention, Youth Risk Behavior Survey



\*Any kind of physical activity that increases heart rate and makes the child breathe hard some of the time for a total of at least 60 minutes on 5 or more days during the preceding 7 days.

#### MENTAL HEALTH

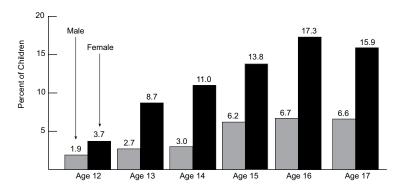
In 2007, 8.2 percent of adolescents aged 12 to 17 years experienced a major depressive episode (MDE), which is defined as at least 2 weeks of depressed mood or loss of pleasure in daily activities, plus a majority of specific depression symptoms, such as altered sleeping patterns, fatigue, and feelings of worthlessness. Females were more likely than males to experience an MDE (11.9 versus 4.6 percent; data not shown). For both sexes, occurrence of MDE peaked at 16 years of American Indian/Alaska Native adolescents were attempting suicide (20.2 percent). least likely to experience an MDE (4.6 percent; data not shown).

Among adolescents who received treatment or counseling for an emotional or behavioral prob-

age; of females in that age group, 17.3 percent lem (not including drug or alcohol use), depresexperienced at least one MDE in the past year. sion was the most commonly reported problem Adolescents of two or more races were most likely (50.0 percent). Adolescents also commonly reto experience an MDE (10.0 percent), followed ported receiving treatment for problems with by non-Hispanic White and non-Hispanic Black home or family (28.8 percent), breaking rules or adolescents (8.7 and 7.8 percent, respectively); acting out (25.1 percent), and contemplating or

### Occurrence of Major Depressive Episode (MDE)\* in the Past Year Among Adolescents Aged 12-17 Years, by Age and Gender, 2007

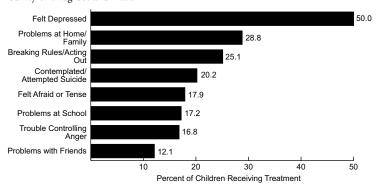
Source (II.13): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



\*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.

### **Commonly Reported Reasons for Receiving Mental Health** Treatment\* in the Past Year Among Adolescents Aged 12-17 Years Who Received Treatment, 2007

Source (II.13): Substance Abuse and Mental Health Service Administration, National Survey of Drug Use and Health



Data are for most recent visit, and respondents could list more than one reason for treatment. Does not include treatment for problems caused by drug or alcohol use.

#### **CIGARETTE SMOKING**

In 2007, cigarette smoking among adolescents continued to decline, according to the annual Monitoring the Future Study. The largest decrease occurred among 8th graders, with the percentage of students who had smoked any cigarettes in the past 30 days falling from 8.7 to 7.1 percent since the previous year. Cigarette smoking in the past 30 days showed a smaller decline among 10th graders, dropping from 14.5 to 14.0 percent, while smoking among 12th graders remained steady at 21.6 percent.

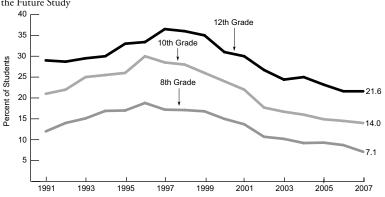
The percent of teens smoking in the past month began a rapid increase in the early 1990s, with the rates among 8th and 10th graders reaching a peak in 1996 (at 21.0 and 30.4 percent, respectively), and the rate among 12th graders peaking in 1997 at 36.5 percent. These increases occurred in virtually every sociodemographic group: male and female, those planning on attending a four-year college and those without such plans, those living in all four regions of the country, those living in rural and urban areas, and those of different racial and ethnic groups. Since the mid-1990s, overall rates

of smoking in the past month have dropped 66 percent among 8th graders, 54 percent among 10th graders, and 41 percent among 12th graders.

Despite this decline, certain subgroups of adolescents are still more likely than others to smoke. With regard to race and ethnicity, non-Hispanic White students are most likely to report smoking in the past month, followed by Hispanic students. Also, males are more likely than females to smoke, and adolescents without plans to attend a four-year college program are more likely to smoke than their college-bound peers (data not shown).

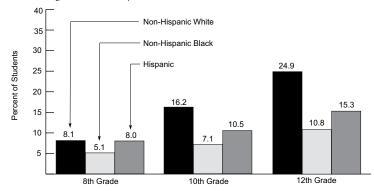
# Any Cigarette Use Among Students in the Past 30 Days, by Grade, 1991–2007

Source (II.12): National Institutes of Health, National Institute on Drug Abuse, Monitoring the Future Study



# Any Cigarette Use Among Students in the Past 30 Days, by Grade and Race/Ethnicity,\* 2007

Source (II.12): National Institutes of Health, National Institute on Drug Abuse, Monitoring the Future Study



\*Data for race represents a two-year average (2006 and 2007) to increase sample size and thus provide a more stable estimate.

#### SUBSTANCE ABUSE

In 2007, 9.5 percent of adolescents aged 12-17 years reported using illicit drugs in the past month. Illicit drug use varied by age, with 3.3 percent of youth aged 12-13 years reporting use in the past month, compared to 8.9 percent of youth aged 14-15 years and 16.0 percent of youth aged 16-17 years. There was also variation by race/ethnicity, with rates ranging from 6.0 percent among Asian youth to 18.7 percent<sup>1</sup> among American Indian/Alaska Native youth. Rates for non-Hispanic White, non-Hispanic Black, and Hispanic youth were 10.2 percent, 9.4 percent, and 8.1 percent, respectively (data not shown).

Marijuana was the most commonly used illicit drug among adolescents in 2007 (6.7 percent), followed by non-medical use of prescription-type psychotherapeutics, such as pain relievers, tranquilizers, and stimulants (3.3 percent). Adolescent males were slightly more likely than their female counterparts to report using illicit drugs in the past month (10.0 versus 9.1 percent, respectively). Illicit drug use is associated with other health risk behaviors. In 2007, 47.3 percent of adolescents who reported cigarette use in the past month also reported illicit drug use, compared to only 5.4 percent of adolescents who did not report smoking. Adolescents who reported heavy<sup>2</sup> alcohol use in the past month were also more likely to use illicit drugs than adolescents who did of risk with cocaine use. Smoking one or more not report alcohol use (60.1 versus 5.0 percent, packs of cigarettes a day was considered a great respectively; data not shown).

used drug among adolescents, with 15.9 percent ered a great risk by 39.4 percent of adolescents. reporting past-month use in 2007. There was little difference in alcohol use among males and females (15.9 and 16.0 percent, respectively). Greater variation was evident by race, with rates ranging from 8.1 percent among Asian youth to 20.5 percent<sup>1</sup> among American Indian/Alaska Native youth; the rate for non-Hispanic White youth was 18.2 percent.

In 2007, 34.5 percent of adolescents perceived smoking marijuana once a month to be a great risk, while 49.6 percent perceived the same level

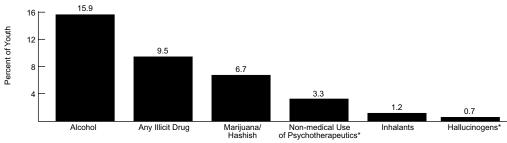
risk by 68.8 percent of youth. Drinking five or Alcohol continues to be the most commonly more drinks once or twice per week was consid-

> While fewer than 15 percent of adolescents reported being approached by someone selling drugs in the past month, 49.1 percent reported that marijuana would be fairly or very easy to obtain; the same was reported by 25.3 percent of youth regarding crack, 24.5 percent regarding cocaine, 14.4 percent regarding LSD, and 14.1 percent regarding heroin (data not shown).

- 1 2006; no estimate was reported for 2007 due to low precision.
- 2 Heavy drinking is defined as drinking 5 or more drinks on the same occasion on each of 5 or more days in the past 30 days.

### Past Month Drug Use Among Adolescents Aged 12-17 Years, by Drug Type, 2007

Source (II.13): Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health



\*Psychotherapeutics include prescription-type pain relievers, tranquilizers, stimulants (including methamphetamine), and sedatives, but do not include over-the-counter drugs; hallucinogens include LSD, PCP, and Ecstasy.

#### **VIOLENCE**

Violence among adolescents is a critical public health issue in the United States. In 2006, homicide was the second leading cause of death among persons aged 15-24 years.

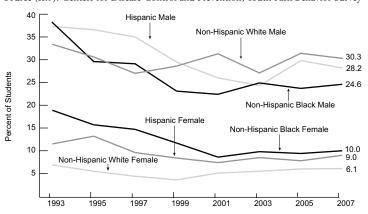
Results from the Youth Risk Behavior Surveillance System show that 18.0 percent of high school students had carried a weapon (such as a gun, club, or knife) at some point during the preceding 30 days in 2007. Males were about four times as likely as females to carry a weapon (28.5 versus 7.5 percent). Among male students, non-

Hispanic Whites were the most likely to carry a weapon (30.3 percent) followed by Hispanics (28.2 percent), while non-Hispanic Blacks were least likely to carry a weapon (24.6 percent). The opposite was true among females: non-Hispanic Blacks were the most likely to carry a weapon (10.0 percent), followed by Hispanics (9.0 percent), while non-Hispanic White females were least likely to carry a weapon (6.1 percent). Just over 5 percent of students reported carrying a gun in the preceding 30 days, and males were more than 7 times as likely as females to do so.

In 2007, 12.4 percent of high school students reported being in a physical fight on school property during the 12 months preceding the survey. Males were twice as likely as females to be in a fight; this sex disparity was most pronounced among non-Hispanic Whites, where males were almost three times as likely as females to be in a fight. Overall, non-Hispanic Black students were the most likely to be in a physical fight on school property (17.6 percent), followed by Hispanic students (15.5 percent); non-Hispanic White students were least likely to be in a fight (10.2 percent).

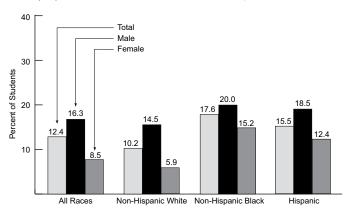
# High School Students Who Carried a Weapon in the Past 30 Days, by Sex and Race/Ethnicity, 1993–2007

Source (II.9): Centers for Disease Control and Prevention, Youth Risk Behavior Survey



# High School Students in a Physical Fight on School Property in the Past 12 Months, by Sex and Race/Ethnicity, 2007

Source (II.9): Centers for Disease Control and Prevention, Youth Risk Behavior Survey



#### ADOLESCENT MORTALITY

In 2006, 13,739 deaths were reported among adolescents aged 15-19 years, representing a rate of 64.4 per 100,000. The rate for males in this age group was notably higher than that for females (90.7 versus 36.8 per 100,000; data not shown). Unintentional injury remains the leading cause of death among this age group and accounted for nearly half of all deaths among adolescents in 2006, representing a rate of 31.3 per 100,000. The second and third leading causes of death among

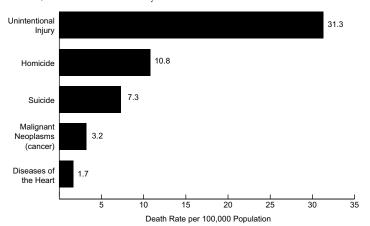
adolescents aged 15-19 years were homicide and suicide, with rates of 10.8 and 7.3 per 100,000, respectively. These causes accounted for 17 and 11 percent of deaths within this age group. that nearly one-third of adolescent drivers killed in crashes had been drinking (data not shown). Firearms were the next leading cause of fatal injury, accounting for 26 percent of injury-related

Within the general category of deaths due to injury or other external causes (including intentional injury), motor vehicle traffic was the leading cause of mortality among 15- to 19-year-olds in 2006, accounting for 45 percent of injury-related deaths among adolescents. Alcohol is a significant contributor to these deaths; recent data suggest

that nearly one-third of adolescent drivers killed in crashes had been drinking (data not shown). Firearms were the next leading cause of fatal injury, accounting for 26 percent of injury-related deaths in this age group, followed by poisoning, suffocation, and drowning. Within the category of unintentional injuries, firearm injury falls to the fifth leading cause of death (data not shown).

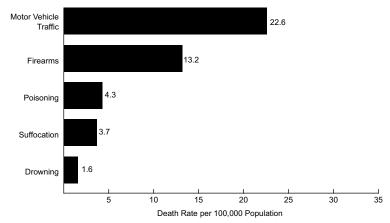
#### Leading Causes of Death Among Adolescents Aged 15-19, 2006

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



#### Deaths Due to Injury\* Among Adolescents Aged 15-19, 2006

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



\*Includes intentional injury, such as homicide and suicide

# ADOLESCENT MORTALITY FROM TRAFFIC AND FIREARM INJURIES

The two leading mechanisms of injury death among adolescents are motor vehicle traffic and firearms. In 2006, 4,814 adolescents aged 15 to 19 years were killed by motor vehicle traffic. Most of those were either involved as driver or passenger in the vehicle, while the remaining deaths occurred among pedestrians, motorcyclists, and pedal cyclists. The 2007 Youth Risk Behavior Survey revealed that 11.1 percent of high school students had rarely or never worn seat belts when riding in a car driven by someone else. Additionally, 29.1 percent of students had ridden at least once in the 30 days preceding the survey with a driver who had been drinking (data not shown).

Firearms were the second leading mechanism of injury death among adolescents in 2006. Overall, 2,809 adolescents were killed by firearms, representing a rate of 13.2 per 100,000 adolescents. Of these, homicide accounted for 70 percent and suicide accounted for 25 percent; the remainder were unintentional or of unknown intent. The 2007 Youth Risk Behavior Survey indicated that 5.2 percent of high school students carried a gun at least once in the month preceding the survey.

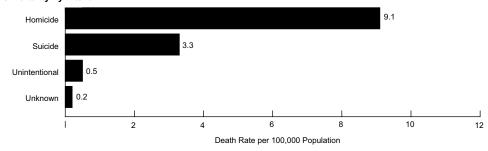
#### Adolescent Mortality from Traffic and Firearm Injuries, 2006

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

#### Traffic Mortality by Person Injured



#### Firearms Mortality by Intent



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 State Children's Health Insurance Program (SCHIP; changed to CHIP in 2009). Eligibility for public programs is based on a family's income compared to the Federal poverty level. Nearly every State has SCHIP programs that help expand coverage to children who would otherwise be uninsured. Despite the progress achieved through public programs, approximately 8.1 million children remain uninsured in the United States.

This section presents data on the 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.



#### HEALTH CARE FINANCING

In 2007, 8.1 million children younger than 18 years of age had no health insurance coverage, representing 11.0 percent of the population. This was a slight drop from the rate of 11.7 percent the previous year. More than 30 percent of children were insured through public programs such as Medicaid and the State Children's Health Insurance Program (SCHIP; changed to CHIP in 2009).

Children's insurance status varies by a number of factors, including race and ethnicity and poverty status. Non-Hispanic White children were more likely than children of other racial/ethnic groups to have private insurance coverage in 2007 (76.9

percent), while fewer than half of non-Hispanic percent) or be uninsured (17.6 percent), and were Black and Hispanic children had private coverage during the same period (48.7 and 40.4 percent, respectively). Non-Hispanic Black children were most likely to have public coverage (47.1 percent), and Hispanic children were the most likely to be uninsured (20.0 percent).

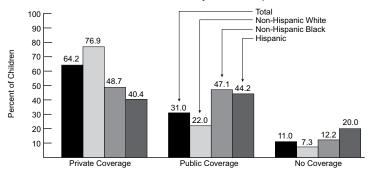
insurance coverage among children rises and the proportions of children with public coverage and no coverage decrease. In 2007, children with family incomes below 100 percent of the poverty threshold (\$21,203 for a family of four in 2007) were most likely to have public coverage (70.1

least likely to have private coverage (17.2 percent). The majority of children with family incomes of 200 to 299 percent and 300 percent or more of poverty were privately insured (72.7 and 90.2 percent, respectively).

In 1997, SCHIP was created in response to As family income increases, private health the growing number of uninsured children in low-income working families. In 2007, more than 7.1 million children were enrolled in SCHIP. 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,\* 2007

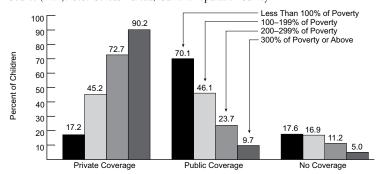
Source (III.1): U.S. Census Bureau, Current Population Survey



\*Totals equal more than 100 percent because children may have more than one type of coverage.

### Health Insurance Coverage Among Children Under Age 18, by Poverty Status\* and Type of Coverage,\*\* 2007

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



\*The U.S. Census poverty threshold for a family of four was \$21,203 in 2007.

<sup>\*\*</sup> Totals equal more than 100 percent because children may have more than one type of coverage

# ADEQUACY OF HEALTH INSURANCE COVERAGE

While the majority of children in the United States have health insurance coverage, it may not always be adequate to meet their health and medical needs. The 2007 National Survey of Children's Health asked parents of insured children three questions about the services and costs associated with their child's health insurance. Parents were asked whether out-of-pocket costs were reasonable, whether the child's health insurance covered services that met the child's needs, and whether

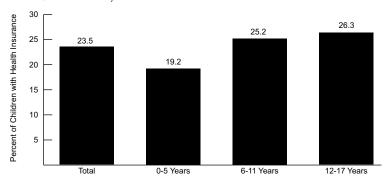
their health insurance allowed them to see the health care providers they needed.

Children were considered to have adequate hold income health insurance coverage if their parent answered "usually" or "always" to each of these three questions. Overall, 23.5 percent of currently insured children lacked adequate insurance. Older children were more likely than younger children to lack adequate coverage: 26.3 percent of children aged 12-17 and 25.2 percent of those aged 6-11 years were reported to lack adequate insurance, compared to insurance. 19.2 percent of children aged 0-5 years.

The percentage of children lacking adequate health insurance coverage also varied by household income. Currently insured children with incomes below the Federal Poverty Level (FPL) and more than 400 percent of FPL were least likely to lack adequate coverage (20.1 and 21.1 percent, respectively). In comparison, 26.9 percent of children with household incomes of 201-400 percent of FPL and 25.1 percent of those with incomes of 101-200 percent of FPL lacked adequate incurance.

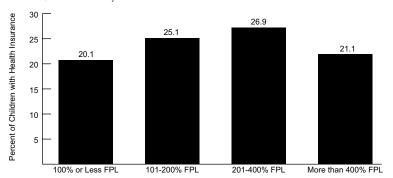
# Currently Insured Children Under Age 18 Whose Health Insurance Was Not Adequate, by Age, 2007

Source (I.8): 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



# Currently Insured Children Under Age 18 Whose Health Insurance Was Not Adequate, by Poverty Status,\* 2007

Source (I.8): 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 (FPL) was equal to \$20,650 for a family of four in 2007; FPL is set by the U.S. Department of Health and Human Services for determining income eligibility in public assistance programs.

#### VACCINATION COVERAGE

The Healthy People 2010 objective for immunization is to achieve 90 percent coverage for each of the universally recommended vaccines among young children. In 2007, 77.4 percent of children 19-35 months of age had received each of the vaccines in the recommended 4:3:1:3:3:1 series. This series comprises four doses of diphtheria, tetanus, and pertussis vaccine; three doses of poliovirus vaccine; one dose of measles, mumps, and rubella vaccine; three doses of Haemophilus influenzae type b (Hib) vaccine; three doses of the Hepatitis B vaccine; and one dose of varicella (chicken pox) vaccine. Overall, 80.1 percent of young children had received the 4:3:1:3:3 series, which excludes the varicella vaccine.

In recent years, the greatest increase in vaccination rates has occurred with the varicella vaccine, which was added to the recommended schedule in 1996. Since 2000, coverage of varicella vaccine has increased approximately 30 percent. Coverage for most other vaccines has also risen during this time period, generally between 2 and 4 percent.

Racial/ethnic differences in coverage are apparent for most vaccine types. Non-Hispanic Black children have the lowest rates of vaccination with the overall 4:3:1:3:3:1 series, as well as

the lowest rates of vaccination with each of the new vaccines were added to the schedule in 2009; individual vaccines, except varicella.

and Prevention publishes an update of the childhood immunization schedule (see next page). No

however, there were a number of changes in the Each year, the Centers for Disease Control catch-up recommendations for several vaccines and the vaccination guidelines for certain populations of children.

### Vaccination Rates among Children Aged 19-35 Months, by Race/Ethnicity, 2007

Source (III.2): Centers for Disease Control and Prevention, National Immunization Survey

	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	Asian
Complete Series 4:3:1:3:3:1 (includes Varicella)	77.4	77.5	75.3	78.0	79.4
Series 4:3:1:3:3 (excludes Varicella)	80.1	81.0	77.5	79.8	80.7
4+ DTaP	84.5	85.3	82.3	83.8	87.5
3+ Polio	92.6	92.6	91.1	93.0	95.0
1+ MMR	92.3	92.3	91.5	92.6	93.9
3+ Hib	92.6	92.6	90.8	93.5	91.0
3+ НерВ	92.7	92.5	91.2	93.6	93.8
1+ Varicella	90.0	89.2	89.8	90.6	93.7

#### Recommended Immunization Schedule for Children Aged 0-6 Years, United States, 2009

Source (III.3): Department of Health and Human Services, Centers for Disease Control and Prevention

	Віктн	1мо	2мо	4мо	6мо	12мо	<b>15</b> мо	18мо	19-23мо	2-3YR	4-6YR
Hepatitis B¹	HepB	H	ерВ	see footnote 1		He	рВ	,			
Rotavirus <sup>2</sup>			RV	RV	RV <sup>2</sup>						
Diphtheria, Tetanus, Pertussis³			DTaP	DTaP	DTaP	see footnote 3	Dī	ГаР			DTaP
Haemophilus influenzae tybe b4			Hib	Hib	Hib⁴	Hi	ib				
Pneumococcal <sup>5</sup>			PCV	PCV	PCV PCV			PPSV			
Inactivated Poliovirus			IPV	IPV		IV	Р				IVP
Influenza <sup>6</sup>							In	fluenza (year	ly)		
Measles, Mumps, Rubella <sup>7</sup>						MN	/IR		see footnote 7		MMR
Varicella <sup>8</sup>						Vario	ella		see footnote 8		Varicella
Hepatitis A <sup>9</sup>					HepA (2 doses) HepA Serie			Series			
Meningococcal <sup>10</sup>										M	CV

This schedule indicates the recommended ages for routine administration of currently licensed vaccines, as of December 1, 2008, for children aged 0 through 6 years. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. Licensed combination vaccines may be used whenever any component of the

combination is indicated and other components are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations, including high-risk conditions: http://www.cdc.gov/vaccines/pubs/acip-list-hm. Clinically significant

adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at http://www.vaers.hhs.gov or by telephone, 800-822-7967.

### 1. Hepatitis B vaccine (HepB). (Minimum age: birth) At birth:

- Administer monovalent HepB to all newborns before hospital discharge.
- If mother is hepatitis B surface antigen (HBsAg)-positive, administer HepB and
- 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth.
   Determine mother's HBsAg status as soon as possible and, if
- HBsAq-positive, administer HBIG (no later than age 1 week).

#### After the birth dose:

- The HepB series should be completed with either monovalent HepB or a combination vaccine containing HepB. The second dose should be administered at age 1 or 2 months. The final dose should be administered no earlier than age 24 weeks.
- Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg (anti-HBs) after completion of at least 3 doses of the HepB series, at
- to HBsAg (anti-HBs) after completion of at least 3 doses of the HepB serie age 9 through 18 months (generally at the next well-child visit).

#### 4-month dose:

 Administration of 4 doses of HepB to infants is permissible when combination vaccines containing HepB are administered after the birth dose.

#### 2. Rotavirus vaccine (RV). (Minimum age: 6 weeks)

- Administer the first dose at age 6 through 14 weeks (maximum age: 14 weeks 6 days). Vaccination should not be initiated for infants aged
- 15 weeks or older (i.e., 15 weeks 0 days or older).
- · Administer the final dose in the series by age 8 months 0 days.
- If Rotarix® is administered at ages 2 and 4 months, a dose at 6 months is not indicated
- 3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)
- . The fourth dose may be administered as early as age 12 months, provided at

least 6 months have elapsed since the third dose.

- Administer the final dose in the series at age 4 through 6 years.
- 4. Haemophilus influenzae type b conjugate vaccine (Hib).
  - (Minimum age: 6 weeks)
- If PRP-OMP (PedvaxHIB® or Comvax® [HepB-Hib]) is administered at ages 2 and 4 months, a dose at age 6 months is not indicated.
- TriHiBit® (DTaP/Hib) should not be used for doses at ages 2, 4, or 6 months but can be used as the final dose in children aged 12 months or older.
- Pneumococcal vaccine. (Minimum age: 6 weeks for pneumococcal conjugate vaccine (PCV); 2 years for pneumococcal polysaccharide vaccine (PPSV))
   PCV is recommended for all children aged younger than 5 years. Administer
  - PCV is recommended for all children aged younger than 5 years. Administer 1 dose of PCV to all healthy children aged 24 through 59 months who are not completely vaccinated for their age.
- Administer PPSV to children aged 2 years or older with certain underlying medical conditions (see MMWR 2000;49[No. RR-9]), including a cochlear implant.
- cai conditions (see MMWR 2000;49]No. RR-9J), including a cochiear implant.
  6. Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])
- Administer annually to children aged 6 months through 18 years.
- For healthy nonpregnant persons (i.e., those who do not have underlying medical conditions that predispose them to influenza complications) aged 2 through 49 years, either LAIV or TIV may be used.
- Children receiving TIV should receive 0.25 mL if aged 6 through 35 months or 0.5 mL if aged 3 years or older.
- Administer 2 doses (separated by at least 4 weeks) to children aged younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose
- 7. Measles, mumps, and rubella vaccine (MMR). (Minimum age: 12 months)

   Administer the second dose at age 4 through 6 years. However, the second dose

- may be administered before age 4. provided at least 28 days have elapsed since
- the first dose.
  8. Varicella vaccine. (Minimum age: 12 months)
- Administer the second dose at age 4 through 6 years. However, the second dose may be administered before age 4, provided at least 3 months have elapsed since the first dose.
- For children aged 12 months through 12 years the minimum interval between doses is 3 months. However, if the second dose was administered at least 28 days after the first dose, it can be accepted as valid.
- 9. Hepatitis A vaccine (HepA). (Minimum age: 12 months)
- Administer to all children aged 1 year (i.e., aged 12 through 23 months). Administer 2 doses at least 6 months apart.
- Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepÅ also is recommended for children older than 1 year who live in areas where vaccination programs target older children or who are at increased risk of infection. See MMWR 2006;55(No. RR-7).
- Meningococcal vaccine, (Minimum age: 2 years for meningococcal conjugate vaccine [MCV] and for meningococcal polysaccharide vaccine [MPSV])
   Administer MCV to children aged 2 through 10 years with terminal complement component deficiency, anatomic or functional asplenia, and certain other high-risk groups. See MMWR 2005:541/No. RR-71.
- Persons who received MPSV 3 or more years previously and who remain at increased risk for meningococcal disease should be revaccinated with MCV.

The Recommended Immunization Schedules for Persons Aged 0 Through 18 Years are approved by the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/recs/acip), the American Academy of Pediatrics (http://www.aap.org), and the American Academy of Family Physicians (http://www.aafp.org).

### MENTAL HEALTH **TREATMENT**

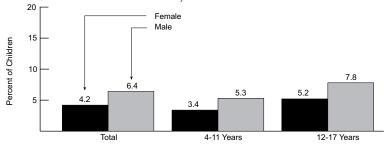
According to parents' reports, 5.3 percent of children aged 4-17 years received treatment for emotional or behavioral difficulties in the past year. This includes treatment, alone or in conjunction with medication, for difficulties with emotions, concentration, behavior, or being able to get along with others. Boys were more likely than girls to have received treatment (6.4 versus 4.2 percent), and older children (aged 12-17 years) were more likely than younger children

(aged 4-11 years) to have received treatment (6.5 more than one place of treatment.)

In 2005-2006, 5.1 percent of children aged versus 4.4 percent; data not shown). Among 4-17 years were prescribed medication for emothose children who received treatment for emotional or behavioral difficulties in the past year. tional or behavioral difficulties, almost 60 percent That includes the 4.4 percent of children who were seen at a private practice, clinic, or mental were reported to have been prescribed medication health care center, while nearly 40 percent re- for the symptoms of attention deficit hyperactivceived treatment through their school. Another ity disorder (ADHD). Again, boys were more one-quarter of children who received treatment likely than girls to have been prescribed medicadid so through a primary care provider, and fewer tion (6.6 versus 3.4 percent), and 12- to 17-yearthan 10 percent of children received treatment at olds were more likely to be prescribed medication some other type of place. (Parents could report than younger children (6.0 versus 4.3 percent; data not shown).

### Receipt of Treatment\* for Emotional or Behavioral Difficulties in the Past 12 Months among Children Aged 4-17 Years, by Sex and Age, 2005-2006

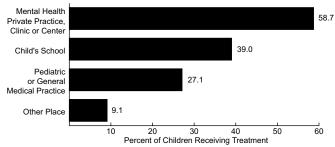
Source (II.11): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



\*Received treatment, other than or in addition to medication, in the past 12 months for difficulties with emotions, concentration, behavior, or being able to get along with others; this includes children who have been prescribed medication and are receiving other types of treatment, but does not include children who have been prescribed medication only.

### Place of Treatment\* for Fmotional or Behavioral Difficulties among Children Aged 4-17 Years who Received Treatment in the Past 12 Months, 2005-2006

Source (II.11): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



\*Treatment, other than or in addition to medication, in the past 12 months for difficulties with emotions, concentration, behavior, or being able to get along with others; this includes children who have been prescribed medication and are receiving other types of treatment, but does not include children who have been prescribed medication only. Parents could report more than one place of treatment.

#### **DENTAL CARE**

According to the Centers for Disease Control and Prevention, dental caries (tooth decay) is the single most common chronic disease among children in the United States. Untreated tooth decay causes pain and infections, which may affect children's ability to eat, speak, play, and learn. Dental caries, however, are preventable with proper dental care. For this reason, the American Dental Association recommends that children have their first dental checkup within 6 months of the eruption of their first tooth or at 12 months of age, whichever comes first.

In 2006, only 27.7 percent of children eligible for services under the Medicaid Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) program received preventive dental services.

In 2007, 73.0 percent of children aged 1-18 years received dental care, including care from dental specialists and dental hygienists, in the past year. Receipt of dental care varied by a number of factors, including race/ethnicity and income. Children with family incomes of 200 percent or more of the poverty threshold were more likely to have received dental care than children living with family incomes below 200 percent of the

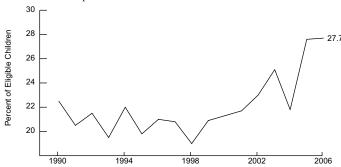
In 2006, only 27.7 percent of children eligible poverty threshold (78.9 versus 64.8 percent, reservices under the Medicaid Early and Periodic spectively).

Non-Hispanic White children aged 1-18 years were more likely than children of other racial/ethnic groups to have received dental care in the past year (76.0 percent), followed by non-Hispanic Black children (71.0 percent) and Hispanic children (67.5 percent; data not shown).

1 Centers for Disease Control and Prevention, Division of Oral Health. Children's Oral Health. http://www.cdc.gov/Oral-Health/topics/child.htm. Accessed 26 November, 2008.

# Receipt of EPSDT Preventive Dental Service among Eligible Children,\* Aged Birth–20 Years, 1990–2006\*\*

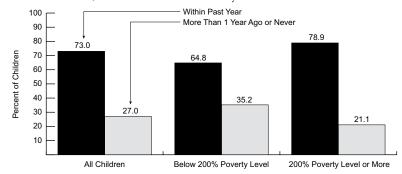
Source (III.4): Centers for Medicare and Medicaid Services, Annual EPSDT Report



\*All children on Medicaid are eligible for EPSDT services. \*\*Not all States and Territories reported data in all years.

# Receipt of Dental Care\* among Children Aged 1–18 Years, by Poverty Level,\*\* 2007

Source (III.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



\*Includes visits to specialists and dental hygienists. \*\*The poverty threshold, as determined by the Census Bureau, was equal to \$21,203 for a family of four in 2007.

# TIMING OF HEALTH CARE VISITS

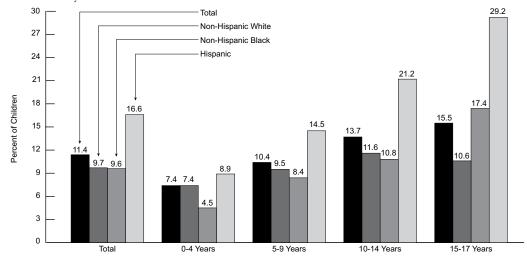
The American Academy of Pediatrics recommends that children have eight preventive health care visits in their first year, three in their second year, and at least one per year from middle child-hood through adolescence. In 2007, 11.4 percent of children under 18 years of age had not seen a physician or other health care professional in the past year (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 15 percent of children aged 15-17 years had not seen a health care provider in the past year, compared to 7.4 percent of children under 5 years of age.

Health care visits also varied by race/ethnicity: in 2007, nearly 17 percent of Hispanic children had not seen a physician or other health professional in the past year, compared to 9.7 percent of non-Hispanic White children and 9.6 percent of non-Hispanic Black children. Within every age group Hispanic children were the least likely to have seen a health care provider, and non-Hispanic Black children were the most likely to have seen one, except for within the 15- to 17-year-old age group. Across all racial/ethnic and age groups,

Hispanic children aged 15-17 years were the most likely to have gone without a health care visit in the past year (29.2 percent).

# Children Reported to Have Not Seen a Physician or Other Health Care Professional\* in the Past 12 Months, by Age and Race/Ethnicity, 2007

Source (III.5): 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.

### PREVENTIVE HEALTH CARE **VISITS**

In 2007, nearly 74 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. 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 middle childhood through adolescence.

of other ages to have a well-child visit: 82.7 percent of children aged 4 years and younger had a visit in the past year, compared to 75.8 percent of children aged 5-9 years, 69.1 percent of children aged 10-14 years, and only 63.3 percent of children aged 15-17 years.

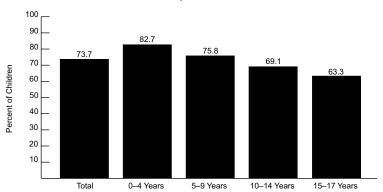
The proportion of children receiving preventive medical care also varies by race and ethnicity. In 2007, non-Hispanic Black children were the to 70.7 percent of children with family incomes most likely to have had a well-child visit in the below the poverty threshold (data not shown).

Young children were more likely than children past year (79.8 percent), followed by non-Hispanic White children (74.1 percent). Hispanic children were least likely to have had preventive care (68.5 percent).

> Receipt of preventive medical care also varies by poverty status. In 2007, 74.3 percent of children with family incomes above the poverty threshold (\$21,203 for a family of four in 2007) had a well-child visit in the past year, compared

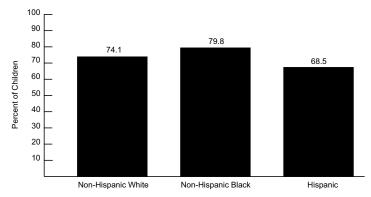
### Receipt of Preventive Health Care in the Past Year Among Children Under Age 18, by Age, 2007

Source (III.5): 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, 2007

Source (III.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



### **USUAL PLACE FOR SICK** CARE

In 2007, a doctor's office or health maintenance organization (HMO) was the usual place for sick care (not including routine or preventive care) for 74.8 percent of children in the United States, a proportion that varies by poverty status and race/ethnicity. Children with family incomes above the poverty threshold (\$21,203 for a family of four in 2007) were more likely to visit a doctor's office or HMO for sick care than children with family incomes below the poverty threshold.

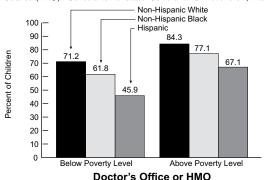
Among children with family incomes below the poverty threshold, 71.2 percent of non-His-

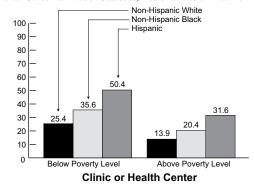
panic White children received sick care at a doccare at a clinic or health center, with over 50 percent whose family incomes were below poverty and more than 30 percent whose family inclinics or health centers.

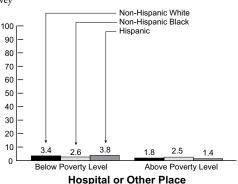
Only a small proportion of children used a tor's office or HMO, compared to 61.8 percent of hospital emergency room, hospital outpatient non-Hispanic Black children and 45.9 percent of department, or some other source as their pri-Hispanic children. Hispanic children were more mary source of sick care. Children with family likely than non-Hispanic children to receive sick incomes below the poverty threshold were more likely than children with family incomes above the poverty threshold to do so. For instance, 3.8 percent of Hispanic children and 3.4 percent of comes were above poverty receiving care at such non-Hispanic White children with family ina location. Comparatively, only 25.4 percent of comes below the poverty threshold received sick low-income and 13.9 percent of higher-income care from these sources, compared to 1.4 percent non-Hispanic White children received care from and 1.8 percent, respectively, of those with family incomes above the poverty threshold.

#### Place of Physician Contact,\* by Poverty Status\*\* and Race/Ethnicity, 2007

Source (III.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey







\*The place where the child usually goes when sick; does not include routine or preventive care visits. \*\*The U.S. Census Bureau poverty threshold for a family of four was \$21,203 in 2007.

# EMERGENCY DEPARTMENT UTILIZATION

In 2007, more than 20 percent of children had at least one visit to a hospital emergency department (ED). Children with family incomes below the poverty threshold (\$21,203 for a family of four in 2007) were more likely than children with family incomes above the poverty threshold to have visited the ED. Just over 26 percent of children from low-income families made one to three ED visits during the year, compared to fewer than 18 percent of children from higher-income families. Similarly, 2.8 percent of children from low-income families made four or more visits to the

ED, compared to 1.1 percent of children from higher-income families.

Emergency department utilization also varies by age: 22.4 percent of children under 5 years of age made 1-3 visits to the ED in 2007, followed by children aged 15-17 years (20.3 percent). Children under 5 years of age were also the most likely to make 4 or more visits to the ED (2.7 percent), followed by children aged 5-9 years (1.0 percent). Racial/ethnic differences in utilization were also apparent, with non-Hispanic Black children most likely to make 1-3 and 4 or more visits to the ED (data not shown).

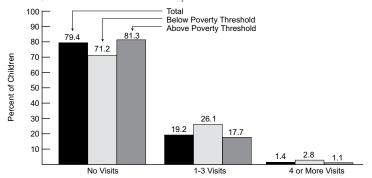
According to the 2006 National Hospital Am-

bulatory Medical Care Survey, the most common reason for a visit to the emergency department among children under 15 years of age was fever (15.1 percent), followed by cough (6.6 percent), and vomiting (5.5 percent). The most common primary diagnoses as the result of ED visits were acute upper respiratory infections (9.2 percent), otitis media (middle ear infection) and Eustachian tube disorders (6.6 percent), and fever of unknown origin (5.8 percent; data not shown). <sup>1</sup>

1 Pitts SR, Niska RW, Xu J, Burt CW. National Hospital Ambulatory Medical Care Survey: 2006 Emergency Department Summary. National Health Statistics Reports, No. 7; 2008 Aug.

#### Visits to the Emergency Room/Emergency Department Among Children Under Age 18, by Poverty Status,\* 2007

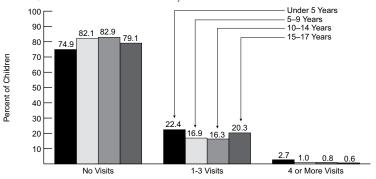
Source (III.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey



\*The U.S. Census Bureau poverty threshold for a family of four was \$21,203 in 2007.

# Visits to the Emergency Room/Emergency Department Among Children Under Age 18, by Age, 2007

Source (III.5): Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey







#### PRENATAL CARE

Prenatal care—especially care beginning in the first trimester—allows health care providers to identify and manage a woman's risk factors and health conditions and to provide expectant parents with relevant health care advice. The reported rate of first trimester prenatal care utilization has been increasing fairly steadily since the early 1990s; however, changes made to the standard birth certificate, which are gradually being adopted by the states, make comparisons over time impossible.

In 2006, in the 18 reporting areas (States and territories) that use the revised birth certificate, 69.0 percent of women giving birth were determined to have received prenatal care in the first trimester. In the 34 areas using the unrevised birth certificate, 83.2 percent of women were reported to have entered prenatal care in the first trimester.

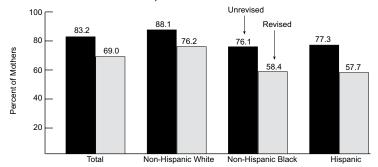
Early prenatal care utilization differs by race/ ethnicity. In 2006, non-Hispanic White women were most likely to receive first trimester prenatal care—this is the case using both revised and unrevised birth certificate data (76.2 percent and

In 2006, in the 18 reporting areas (States and ritories) that use the revised birth certificate, and Hispanic women are less likely to receive first trimester prenatal care.

In 2006, 7.9 percent of women in the areas using the revised birth certificate began prenatal care in the third trimester or did not receive any prenatal care; in areas using the unrevised birth certificate, the rate was 3.6 percent. In both the unrevised and revised reporting areas, non-Hispanic Black and Hispanic women were more than twice as likely as non-Hispanic White women to receive late or no prenatal care.

# Receipt of First Trimester Prenatal Care, by Race/Ethnicity and Birth Certificate Revision\*, 2006

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

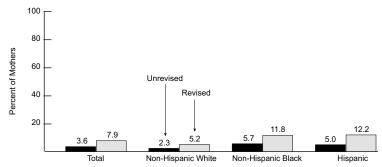


\*"Unrevised" data are for all reporting areas that had not implemented the 2003 Revision of the U.S.

Certificate of Live Birth as of January 2006, including California (which had implemented a partial revision);
"Revised" data are for all reporting areas that had implemented the 2003 Revision, not including California.

# Receipt of Late\* or No Prenatal Care, by Race/Ethnicity and Birth Certificate Revision\*\*, 2006

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



\*Care beginning in the third trimester of pregnancy.

\*\*\*"Unrevised" data are for all reporting areas that had not implemented the 2003 Revision of the U.S.
Certificate of Live Birth as of January 2006, including California (which had implemented a partial revision);
"Revised" data are for all reporting areas that had implemented the 2003 Revision, not including California.

#### **State Data**

While the indicators presented in the previous sections are representative of the United States 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 intervention 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 SCHIP 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 the District of Columbia, and several other southern States, including Alabama and Louisiana. With the exception of Alabama, births to unmarried women were also highest in these States, as well as in New Mexico.

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.



### State Children's Health Insurance Program (SCHIP) Aggregate Enrollment, FY 2007

Source (IV.1): Centers for Medicare and Medicaid Services, Medicaid Statistical Information System

State	Type of SCHIP Program*	Upper Eligibility	Total SCHIP Enrollment	Presumptive Eligibility?**
Alabama	Separate	200%	106,691	N
Alaska	Medicaid	175%	17,558	N
Arizona	Separate	200%	104,209	N
Arkansas	Combo	200%	89,642	N/N
California	Combo	250%	1,538,416	Y/Y
Colorado	Separate	200%	84,649	N
Connecticut	Separate	300%	23,632	N
Delaware	Combo	200%	11,143	N/N
District of Columbia	Medicaid	300%	6,566	N
Florida	Combo	200%	323,529	Y/N
Georgia	Separate	235%	356,285	N
Hawaii	Medicaid	300%	23,958	N
Idaho	Combo	185%	33,060	N/N
Illinois	Combo	200%	345,576	Y/Y
Indiana	Combo	200%	130,368	N/N
Iowa	Combo	200%	50,238	N/N
Kansas	Separate	200%	49,536	Y
Kentucky	Combo	200%	68,776	N/N
Louisiana	Combo	200%	153,663	N/N
Maine	Combo	200%	31,037	N/N
Maryland	Medicaid	200%	132,887	N
Massachusetts	Combo	300%	184,483	Y/Y
Michigan	Combo	200%	114,025	Y/Y
Minnesota	Combo	280%	5,408	N/N
Mississippi	Separate	200%	81,565	N
Missouri	Combo	300%	81,764	Y/N

State	Type of SCHIP Program*	Upper Eligibility	Total SCHIP Enrollment	Presumptive Eligibility?**
Montana	Separate	175%	20,115	N
Nebraska	Medicaid	185%	46,199	N
Nevada	Separate	200%	41,862	N
New Hampshire	Combo	300%	12,088	Y/N
New Jersey	Combo	350%	150,277	Y/Y
New Mexico	Medicaid	234%	16,525	Y
New York	Separate	250%	651,853	Y
North Carolina	Combo	200%	240,152	N/N
North Dakota	Combo	140%	5,469	N/N
Ohio	Medicaid	200%	231,538	N
Oklahoma	Medicaid	185%	117,084	N
Oregon	Separate	185%	63,090	N
Pennsylvania	Separate	300%	227,367	N
Rhode Island	Combo	250%	26,067	N/N
South Carolina	Medicaid	150%	59,920	N
South Dakota	Combo	200%	14,982	N/N
Tennessee	Combo	250%	41,363	Y/Y
Texas	Separate	200%	710,690	N
Utah	Separate	200%	44,785	N
Vermont	Separate	300%	6,132	N
Virginia	Combo	200%	144,163	N/N
Washington	Separate	250%	14,734	N
West Virginia	Separate	220%	38,582	N
Wisconsin	Combo	200%	62,523	N/N
Wyoming	Separate	200%	8,570	N

\*Programs may be an expansion of Medicaid, a separate SCHIP program, or a combination of the two. \*\*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). For States with a combination plan, information for the Medicaid plan is listed first, followed by information for the separate SCHIP plan.

#### Medicaid Enrollment and EPSDT Utilization for Children under 21, FY 2007

Source (IV.2): Centers for Medicare and Medicaid Services

State	Medicaid Enrollees*	EPSDT Participation Ratio**	Medicaid Expenditures (Per Enrollee)***
Alabama	503,051	57%	\$1,880.18
Alaska	84,203	50%	\$4,493.54
Arizona	644,688	70%	\$2,279.82
Arkansas	387,393	25%	\$2,130.60
California	4,547,735	43%	\$1,352.43
Colorado	338,186	59%	\$1,953.42
Connecticut	278,677	65%	\$2,134.73
Delaware	87,502	60%	\$2,706.08
District of Columbia	91,236	73%	\$3,493.72
Florida	1,611,397	68%	\$1,877.67
Georgia	1,069,682	54%	\$1,821.56
Hawaii	146,692	68%	\$1,842.34
Idaho	157,656	45%	\$2,061.55
Illinois	1,392,361	69%	\$1,487.99
Indiana	607,468	100%	\$1,828.82
lowa****	248,169	68%	\$2,391.59
Kansas	218,498	65%	\$2,434.86
Kentucky	348,376	58%	\$2,537.93
Louisiana	770,726	65%	\$1,537.94
Maine	136,617	59%	\$5,275.23
Maryland	514,777	58%	\$2,606.13
Massachusetts	530,197	78%	\$3,459.01
Michigan	1,103,459	52%	\$1,837.88
Minnesota	410,610	65%	\$3,138.35
Mississippi	400,507	42%	\$1,600.98

State	Medicaid Enrollees*	EPSDT Participation Ratio**	Medicaid Expenditures (Per Enrollee)***
Missouri	643,491	69%	\$1,734.64
Montana	64,620	58%	\$2,536.63
Nebraska	161,329	56%	\$2,201.22
Nevada	154,025	63%	\$1,617.51
New Hampshire	90,678	61%	\$2,483.13
New Jersey	589,415	58%	\$2,223.72
New Mexico	324,178	47%	\$2,415.37
New York	2,021,928	56%	\$2,708.01
North Carolina	973,650	79%	\$2,348.96
North Dakota	44,470	46%	\$2,144.94
Ohio	1,227,384	50%	\$2,005.30
Oklahoma	504,458	50%	\$1,672.24
Oregon	271,889	61%	\$1,971.84
Pennsylvania	1,120,184	49%	\$2,603.95
Rhode Island	113,005	55%	\$4,034.41
South Carolina	528,336	48%	\$1,818.43
South Dakota	88,107	49%	\$2,282.76
Tennessee	816,486	57%	\$1,864.99
Texas	2,904,790	65%	\$1,876.39
Utah	167,691	59%	\$1,986.96
Vermont	57,307	55%	\$2,993.23
Virginia	548,732	67%	\$1,785.67
Washington	646,521	58%	\$1,515.80
West Virginia	207,606	45%	\$1,916.62
Wisconsin	499,965	68%	\$1,585.51
Wyoming	53,642	38%	\$2,124.46

<sup>\*</sup>Unduplicated number of individuals under age 21 determined to be eligible for EPSDT services.

<sup>\*\*</sup>The ratio of Medicaid eligibles receiving any initial and periodic screening services to the number of eligibles who should have received such services.

<sup>\*\*\*</sup>Represents total Medicaid vendor payments divided by Medicaid eligibles under 21 (FY 2004 Medicaid Statistical Information System Report).

<sup>\*\*\*\*</sup>Enrollee and Participation Ratio data are from FY 2005.

N/R: Not reported.

### Health Insurance Status of Children Under 18,\* 2008

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

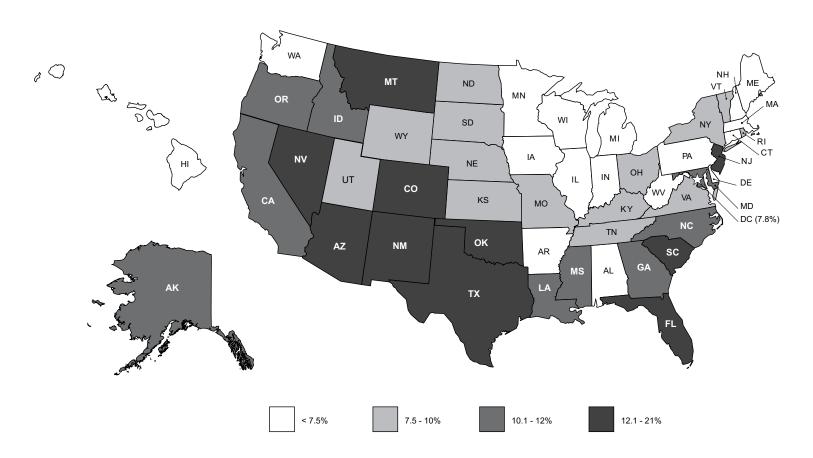
State	Percent with Private Insurance	Percent with Public Insurance**	Percent Uninsured	
Alabama	67%	31%	7%	
Alaska	64%	36%	11%	
Arizona	60%	33%	14%	
Arkansas	52%	49%	6%	
California	60%	34%	11%	
Colorado	71%	19%	13%	
Connecticut	76%	25%	5%	
Delaware	70%	28%	7%	
District of Columbia	56%	41%	6%	
Florida	62%	27%	19%	
Georgia	61%	35%	11%	
Hawaii	70%	37%	5%	
Idaho	71%	24%	11%	
Illinois	70%	31%	7%	
Indiana	70%	31%	5%	
Iowa	77%	27%	5%	
Kansas	68%	32%	8%	
Kentucky	63%	36%	8%	
Louisiana	58%	39%	12%	
Maine	67%	40%	5%	
Maryland	72%	24%	11%	
Massachusetts	72%	30%	3%	
Michigan	69%	31%	6%	
Minnesota	78%	22%	6%	
Mississippi	47%	49%	12%	
Missouri	63%	32%	10%	

\*Children may have more than one type of coverage. \*\*Includes children covered by Medicaid, SCHIP, Medicare, military health insurance, and the Indian Health Service.

State	Percent with Private Insurance	Percent with Public Insurance**	Percent Uninsured	
Montana	59%	35%	13%	
Nebraska	72%	25%	10%	
Nevada	72%	16%	14%	
New Hampshire	82%	18%	6%	
New Jersey	73%	17%	13%	
New Mexico	50%	42%	15%	
New York	62%	34%	9%	
North Carolina	58%	34%	12%	
North Dakota	72%	26%	8%	
Ohio	69%	29%	9%	
Oklahoma	56%	41%	13%	
Oregon	68%	26%	11%	
Pennsylvania	74%	26%	7%	
Rhode Island	70%	30%	9%	
South Carolina	61%	31%	14%	
South Dakota	72%	27%	8%	
Tennessee	58%	39%	9%	
Texas	51%	32%	21%	
Utah	75%	19%	10%	
Vermont	66%	38%	9%	
Virginia	65%	33%	10%	
Washington	71%	30%	7%	
West Virginia	60%	41%	5%	
Wisconsin	75%	27%	6%	
Wyoming	72%	29%	10%	

#### Health Insurance Status: Percent of Children Aged 18 and Younger Who Are Uninsured, by State, 2008

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



### Low Birth Weight, Preterm Birth, and Births to Unmarried Women (Percent), by State and Maternal Race/Ethnicity, 2006

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

	Low Birth Weight			Pr	Preterm Birth		m Birth Births to Unmarried Wo			Nomen
State	Total*	Non-Hi White		Total*	Non-Hi White		Total*	Non-Hi White		Hispanic
United States	8.3	7.3	14.0	12.8	11.7	18.5	38.5	26.6	70.7	49.9
Alabama	10.5	8.5	15.5	17.1	14.8	22.1	36.6	22.2	69.9	21.4
Alaska	6.0	6.0	9.6	11.2	10.5	13.6	36.8	24.4	44.3	36.8
Arizona	7.1	6.8	12.8	13.2	12.1	17.6	44.0	27.9	62.3	55.5
Arkansas	9.2	7.9	15.0	13.7	12.5	19.0	41.8	31.2	78.4	46.5
California	6.8	6.4	12.0	10.7	9.8	15.1	37.6	22.4	65.0	48.2
Colorado	8.9	8.7	15.7	12.2	11.4	18.5	27.6	18.9	53.4	41.4
Connecticut	8.1	6.9	12.5	10.4	9.6	14.2	34.0	19.8	68.0	63.1
Delaware	9.3	7.7	14.8	13.7	11.9	17.8	45.5	31.8	71.5	61.5
District of Columbia	11.5	7.3	14.5	16.0	10.8	19.0	57.6	5.9	79.3	67.5
Florida	8.7	7.6	13.4	13.8	12.0	19.0	44.4	32.6	68.5	47.8
Georgia	9.6	7.5	14.4	14.1	12.5	18.5	42.4	25.0	67.8	48.6
Hawaii	8.1	5.9	10.2	12.1	9.0	13.9	36.0	23.7	25.1	47.4
Idaho	6.9	7.0	N/A	11.6	11.4	23.3	24.3	20.6	40.8	39.9
Illinois	8.6	7.4	14.3	13.3	12.0	19.1	38.7	24.0	78.7	48.9
Indiana	8.2	7.6	14.1	13.2	12.5	18.7	41.4	34.8	78.2	55.0
Iowa	6.9	6.8	10.6	11.6	11.3	14.9	33.8	30.7	72.4	49.1
Kansas	7.2	6.9	12.4	11.8	11.5	15.7	35.2	28.8	72.9	49.6
Kentucky	9.1	8.7	14.6	15.1	14.7	20.3	35.3	30.9	72.6	48.4
Louisiana	11.4	8.5	16.2	16.4	13.3	21.5	49.8	31.6	77.3	49.7
Maine	6.8	6.8	7.5	11.1	11.1	13.0	37.1	37.2	34.6	42.7
Maryland	9.4	7.6	13.4	13.5	11.7	17.0	39.7	24.4	62.0	53.9
Massachusetts	7.9	7.2	12.1	11.3	10.7	15.7	32.2	23.5	60.1	65.9
Michigan	8.4	7.1	14.2	12.5	11.1	18.8	38.3	28.7	76.9	48.2
Minnesota	6.5	6.0	10.3	10.5	10.3	13.1	31.7	24.6	60.1	55.9
Mississippi	12.4	8.9	16.7	18.8	15.0	22.9	52.8	28.4	79.1	56.1

State	Low Birth Weight			Preterm Birth			Births to Unmarried Women			
	Total*	Non-Hi White		Total*	Non-Hi White		Total*	Non-Hi White	spanic Black	Hispanic
Missouri	8.1	7.1	13.6	12.8	11.7	18.9	39.3	31.6	77.6	50.3
Montana	7.3	7.3	N/A	11.9	11.3	N/A	36.0	29.4	N/A	48.4
Nebraska	7.1	6.6	14.0	12.5	11.8	18.1	32.3	25.4	69.4	48.8
Nevada	8.3	8.3	14.1	14.4	13.8	20.2	41.3	29.8	69.6	49.3
New Hampshire	6.9	6.8	10.8	10.4	10.2	15.0	29.4	29.2	41.8	45.8
New Jersey	8.6	7.4	14.1	12.9	11.7	18.8	33.0	15.5	67.1	57.1
New Mexico	8.9	8.7	15.0	14.1	13.0	19.3	51.2	30.4	56.0	57.2
New York	8.3	7.1	12.6	12.4	11.0	16.7	40.0	22.6	69.0	64.2
North Carolina	9.1	7.8	14.2	13.6	11.9	19.0	40.1	24.5	70.4	53.2
North Dakota	6.7	6.7	N/A	12.1	11.6	N/A	31.7	25.1	34.2	46.6
Ohio	8.8	7.7	14.5	13.3	12.2	18.7	40.5	32.6	77.2	56.9
Oklahoma	8.3	7.9	15.4	13.9	13.4	20.1	40.9	33.1	75.7	48.5
Oregon	6.1	6.0	8.5	10.3	10.1	11.4	34.3	30.5	62.8	46.5
Pennsylvania	8.5	7.4	14.0	11.8	10.8	16.8	38.3	28.6	76.9	63.3
Rhode Island	8.0	7.7	11.6	12.6	11.9	15.0	40.5	30.1	63.6	61.5
South Carolina	10.1	7.8	15.2	15.4	13.0	20.4	45.6	28.5	75.5	45.9
South Dakota	7.0	6.7	11.2	12.7	11.5	16.8	37.1	26.7	47.2	47.4
Tennessee	9.6	8.4	14.8	14.8	13.7	19.6	41.4	30.4	74.9	52.3
Texas	8.4	7.6	14.2	13.7	12.6	18.6	39.4	25.5	65.9	45.1
Utah	6.9	6.6	11.0	11.5	10.9	16.4	18.8	13.0	49.0	43.2
Vermont	6.9	6.7	N/A	9.6	9.5	N/A	34.5	34.6	35.1	36.5
Virginia	8.3	7.1	13.0	12.0	10.6	16.7	33.8	21.7	63.9	50.2
Washington	6.5	6.0	10.7	11.0	10.3	13.6	31.9	26.8	52.8	47.4
West Virginia	9.7	9.5	16.3	14.0	13.9	19.0	37.9	36.7	73.6	45.7
Wisconsin	6.9	6.2	13.4	11.4	10.4	18.1	34.1	25.7	83.4	50.2
Wyoming	8.9	9.1	N/A	12.8	12.8	N/A	33.0	28.6	60.0	49.3

N/A: Figure does not meet standards of reliability or precision. \*All races/ethnicities.

### Infant and Neonatal Mortality,\* by State and Maternal Race, 2006

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

		Infant deaths	5	Neonatal Deaths			
State	Total**	White***	White*** Black***		White***	Black***	
	Rate	Rate	Rate	Rate	Rate	Rate	
United States	6.69	5.56	13.29	4.45	3.72	8.82	
Alabama	9.03	6.73	14.17	5.77	4.11	9.58	
Alaska	6.91	4.46	N/A	3.73	N/A	N/A	
Arizona	6.36	6.04	16.93	4.35	4.27	9.57	
Arkansas	8.54	6.86	15.72	4.93	3.74	9.68	
California	5.04	4.78	12.05	3.48	3.33	8.20	
Colorado	5.71	5.48	12.39	4.37	4.26	7.94	
Connecticut	6.22	4.86	14.77	4.76	3.67	11.75	
Delaware	8.26	6.20	14.30	6.01	4.29	10.73	
District of Columbia	11.26	N/A	14.46	7.04	N/A	9.06	
Florida	7.25	5.91	11.91	4.75	3.81	7.96	
Georgia	8.11	5.76	12.93	5.29	3.82	8.33	
Hawaii	5.64	N/A	N/A	4.43	N/A	N/A	
Idaho	6.82	6.70	N/A	4.63	4.68	N/A	
Illinois	7.25	6.00	13.68	4.90	4.37	7.76	
Indiana	7.99	6.67	18.66	4.94	3.98	12.63	
Iowa	5.12	4.90	N/A	3.25	3.15	N/A	
Kansas	7.13	6.05	19.25	4.27	3.86	9.78	
Kentucky	7.52	6.79	15.00	4.43	4.10	7.87	
Louisiana	9.92	6.21	15.82	6.12	3.54	10.17	
Maine	6.29	6.21	N/A	4.24	4.14	N/A	
Maryland	7.95	5.98	11.75	5.78	4.37	8.55	
Massachusetts	4.76	4.57	7.99	3.60	3.46	6.18	
Michigan	7.37	5.78	14.94	5.18	4.03	10.48	
Minnesota	5.18	4.70	8.32	3.28	3.11	4.89	
Mississippi	10.60	7.11	14.60	6.60	4.34	9.25	

		Infant deaths	\$	Neonatal Deaths			
State	Total**	White***	Black***	Total**	White***	Black***	
	Rate	Rate	Rate	Rate	Rate	Rate	
Missouri	7.41	6.10	14.92	4.90	3.95	10.10	
Montana	5.84	4.95	N/A	2.64	2.15	N/A	
Nebraska	5.57	5.22	10.61	3.52	3.27	N/A	
Nevada	6.42	5.77	15.70	4.17	3.84	8.97	
New Hampshire	6.05	5.68	N/A	3.96	3.54	N/A	
New Jersey	5.49	4.40	11.53	3.91	3.35	7.38	
New Mexico	5.78	5.68	N/A	3.64	3.47	N/A	
New York	5.63	4.90	9.18	3.79	3.37	5.89	
North Carolina	8.08	5.95	15.05	5.56	4.08	10.31	
North Dakota	5.80	4.89	N/A	3.60	3.40	N/A	
Ohio	7.77	6.05	16.87	5.21	4.02	11.52	
Oklahoma	8.00	6.79	15.39	4.41	3.80	8.40	
Oregon	5.48	5.31	N/A	3.70	3.71	N/A	
Pennsylvania	7.63	6.19	15.21	5.47	4.31	11.54	
Rhode Island	6.14	5.65	N/A	5.01	4.50	N/A	
South Carolina	8.40	5.67	13.76	5.53	3.55	9.44	
South Dakota	6.88	5.26	N/A	3.61	3.15	N/A	
Tennessee	8.69	6.77	16.01	5.81	4.21	11.65	
Texas	6.22	5.49	11.97	3.97	3.54	7.34	
Utah	5.10	5.10	N/A	3.53	3.63	N/A	
Vermont	5.53	5.55	N/A	3.07	N/A	N/A	
Virginia	7.10	5.37	13.32	4.91	3.71	9.26	
Washington	4.68	4.38	7.37	2.99	2.78	5.06	
West Virginia	7.41	6.74	28.57	3.87	3.44	N/A	
Wisconsin	6.39	5.03	18.28	4.30	3.38	12.94	
Wyoming	7.04	6.57	N/A	4.43	3.91	N/A	

<sup>\*</sup>Mortality figures are presented as number of deaths per 1,000 live births. Infant mortality is defined as death during the first year of life, neonatal mortality is death during the first 28 days of life.

<sup>\*\*</sup>All races/ethnicities. \*\*\*Includes Hispanics. N/A: Figure does not meet the standards of reliability or precision.

### **City Data**

The following section compares urban health to the national average for several health indicators. Included are data on low and very low birth weight for infants born in U.S. cities with over 100,000 residents, and infant mortality among infants born in cities with more than 250,000 residents.

These comparisons indicate that the health status of infants living in large U.S. cities is generally poorer than that of infants in the Nation as a whole. In 2006, 8.8 percent of infants living in cities were born at low birth weight, compared to a national average of 8.5 percent. The infant mortality rate showed an even greater disparity, with a rate of 7.5 per 1,000 live births among infants in cities compared to a national average of 6.9 per 1,000.



#### **BIRTH WEIGHT**

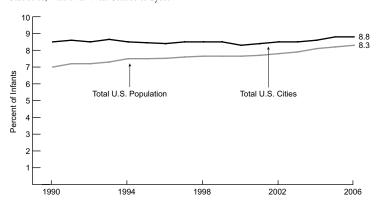
Low Birth Weight. Disorders related to short gestation and low birth weight are the second leading cause of neonatal mortality in the United States. In 2006, 123,230 babies born to residents of U.S. cities with populations over 100,000 were low birth weight (weighing less than 2,500 grams, or 5 pounds 8 ounces); this represents 8.8 percent of infants in U.S. cities. The 2006 percentage of urban infants born low birth weight was 6 percent higher than the percentage

among all U.S. infants (8.3 percent), though this gap has decreased somewhat since 1990.

**Very Low Birth Weight.** Infants born very low birth weight (less than 1,500 grams, or 3 pounds 4 ounces) are at highest risk for poor health outcomes. In 2006, nearly 1.7 percent of live births in cities with populations over 100,000 were very low birth weight. This exceeded the rate of very low birth weight nationwide by 13 percent.

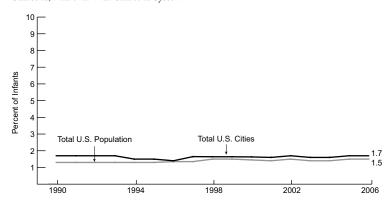
# Infants Born Low Birth Weight in U.S. Cities with Populations over 100,000, 1990–2006

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



# Infants Born Very Low Birth Weight in U.S. Cities with Populations over 100,000, 1990–2006

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

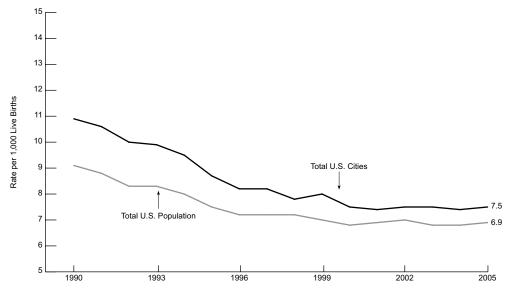


#### **INFANT MORTALITY**

In 2005, 6,623 infants born to residents of cities in the United States with populations over 250,000 died in the first year of life. The infant mortality rate in United States cities was 7.5 deaths per 1,000 live births, which was higher than the rate for the Nation as a whole (6.9 per 1,000). Although the infant mortality rate in cities has consistently been higher than the rate nationwide, it declined over the past decade, and the disparity in infant mortality rates between infants in cities and the Nation as a whole decreased by 50 percent. Between 1990 and 2005, the infant mortality rate in cities declined by nearly onethird, while the nationwide decline during the same period was approximately 25 percent. Declines in infant mortality rates since 2000, however, have been relatively small for both cities and the population as a whole.

### Infant Mortality Rates in U.S. Cities,\* 1990–2005

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



\*Data for 1990–2002 were for cities with populations over 100,000; data after 2002 reflect cities with populations over 250,000.

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