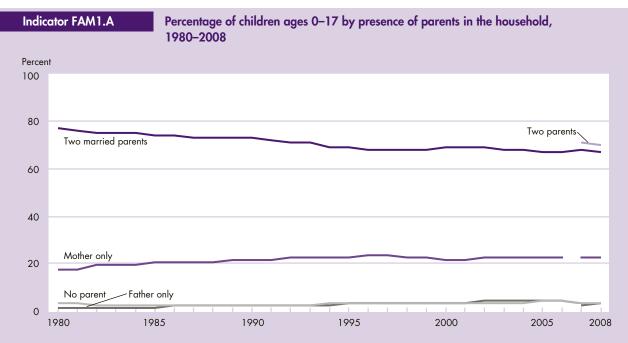
# Indicators of Children's Well-Being

# Family and Social Environment

The indicators in this section present data on the composition of children's families and the social environment in which they live. The seven indicators include family structure and children's living arrangements, births to unmarried women, child care, presence of a foreign-born parent, language spoken at home and difficulty speaking English, adolescent births, and child maltreatment.

#### Family Structure and Children's Living Arrangements

The structure of children's families is associated with the economic, parental, and community resources available to children and their well-being.



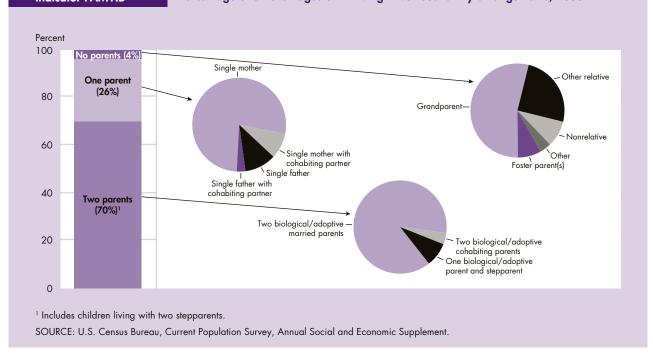
NOTE: Prior to 2007, Current Population Survey (CPS) data identified only one parent on the child's record. This meant that a second parent could only be identified if they were married to the first parent. In 2007, a second parent identifier was added to CPS. This permits identification of two coresident parents, even if the parents are not married to each other. In this figure "two parents" reflects all children who have both a mother and father identified in the household, including biological, step, and adoptive parents. Before 2007, "mother only" and "father only" included some children who lived with a parent who was living with the other parent of the child, but was not married to them. Beginning in 2007, "mother only" and "father only" refer to children for whom only one parent has been identified, whether biological, step, or adoptive.

SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.

- In 2008, 67 percent of children ages 0–17 lived with two married parents, down from 77 percent in 1980.
- In 2008, 23 percent of children lived with only their mothers, 4 percent lived with only their fathers, and 4 percent lived with neither of their parents.<sup>1</sup>
- In 2008, 75 percent of White, non-Hispanic, 64 percent of Hispanic, and 35 percent of Black children lived with two married parents.<sup>2</sup>
- The proportion of Hispanic children living with two married parents decreased from 75 percent in 1980 to 64 percent in 2008.
- Due to improved measurement, it is now possible to identify children living with two parents who are not married to each other. Three percent of all children lived with two unmarried parents in 2008.

For a detailed measure of living arrangements of children, see FAM1.B on page 3.

While most children spend the majority of their childhood living with two parents, some children have other living arrangements. Information about the presence of parents and other adults in the family, such as the parent's unmarried partner, grandparents, and other relatives, is important for understanding children's social, economic, and developmental well-being.



#### Indicator FAM1.B Percentage of children ages 0–17 living in various family arrangements, 2008

- FAM1.B provides more detailed data about children's living arrangements, using information about the coresident parents for each child, as well as the detailed type of relationship between parent and child— biological, step, or adoptive. In 2008, there were about 74 million children ages 0–17. Seventy percent of them lived with two parents, 26 percent lived with one parent, and about 4 percent lived in households without parents.
- Among children living with two parents, 92 percent lived with both biological or adoptive parents, and 8 percent lived with a biological or adoptive parent and a stepparent. About 74 percent of children living with at least one stepparent lived with their biological mother and stepfather.<sup>3</sup>
- About 4 percent of children who lived with both biological or adoptive parents had parents who were not married.
- The majority of children living with one parent lived with their single mother. Some single parents had cohabiting partners. Nineteen percent of children living with single fathers and 10 percent of children

living with single mothers also lived with their parent's cohabiting partner. Out of all children ages 0–17, 4.6 million (6 percent) lived with a parent or parents who were cohabiting.

- Among the 2.8 million children (4 percent) not living with either parent in 2008, 54 percent (1.5 million) lived with grandparents, 25 percent lived with other relatives, and 21 percent lived with nonrelatives. Of children in nonrelatives' homes, 38 percent (228,000) lived with foster parents.
- Older children were less likely to live with two parents—65 percent of children ages 15–17 lived with two parents, compared with 69 percent of children ages 6–14 and 73 percent of those ages 0–5. Among children living with two parents, older children were more likely than younger children to live with a stepparent and less likely than younger children to live with cohabiting parents.<sup>3</sup>

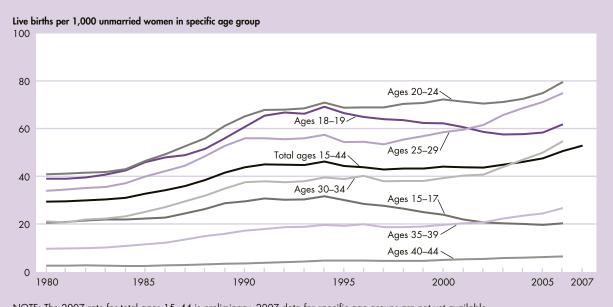
Bullets contain references to data that can be found in Tables FAM1.A and FAM1.B on pages 92–95. Endnotes begin on page 73.

#### Births to Unmarried Women

Increases in births to unmarried women are among the many changes in American society that have affected family structure and the economic security of children.<sup>4</sup> Children of unmarried mothers are at higher risk of adverse birth outcomes such as low birthweight and infant mortality than are children of married mothers. They are also more likely to live in poverty than children of married mothers.<sup>5-9</sup>



Birth rates for unmarried women by age of mother, 1980–2007



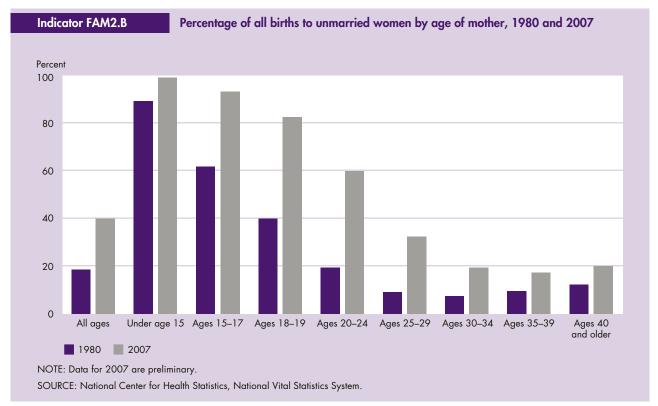
NOTE: The 2007 rate for total ages 15–44 is preliminary. 2007 data for specific age groups are not yet available. SOURCE: National Center for Health Statistics, National Vital Statistics System.

- There were 53 births for every 1,000 unmarried women ages 15–44 in 2007.<sup>10</sup>
- Between 1980 and 1994, the birth rate for unmarried women ages 15–44 increased from 29 to 46 per 1,000. Between 1995 and 2002, the rate fluctuated little, ranging from 43 to 44 per 1,000; from 2002 to 2007, however, the rate increased from 44 to 53 per 1,000.<sup>8,10,11</sup>
- Rates in 2006 remained highest for women ages 20–24 (79.5 per 1,000), followed closely by the rate for women ages 25–29 (74.9 per 1,000).<sup>6,11</sup>
- The birth rate among unmarried adolescents ages 15–19 declined between 1994 and 2005, and then increased in 2006. Among adolescent subgroups, the rate for adolescents ages 15–17 declined from 31.7 per 1,000 in 1994 to 19.7 in 2005 and increased to 20.4 in 2006. For adolescents ages 18–19 the birth rate declined from 1994 to 2003 and increased annually from 2003 to 2006. Birth rates for unmarried women ages 20–44 changed relatively little during the mid- to late 1990s, but increased in the 2000s. For women ages 20–24 the rate rose from 70.5 per 1,000 in 2002 to 79.5 in 2006. For women ages 25–29 the rate rose from 1997 (53.4

per 1,000) to 2006 (74.9), and for unmarried women ages 30–44 birth rates have steadily increased since the late 1990s.

- The long-term rise between 1960 and 1994 in the nonmarital birth rate is linked to a number of factors.<sup>8</sup> The proportion of women of childbearing age who were unmarried increased from under one-third in 1960 to almost half in 1994. Concurrently, there was an increase in nonmarital cohabitation.<sup>12</sup> The likelihood that an unmarried woman would marry before a child was born declined from the early 1960s to the early 1980s and continued to fall, although more modestly, through the 1990s.<sup>11,13</sup> At the same time, childbearing within marriage fell by almost half between 1960 and 1994.<sup>6–8,11</sup>
- After several years of relative stability beginning in the mid- to late 1990s, the birth rate for unmarried women has increased since 2002. The proportion of women of childbearing age who were unmarried continued to rise to over half in 2007. However, nonmarital cohabitation has remained relatively unchanged: nearly 3 in 10 unmarried women ages 25–29 in 2002 were in cohabiting relationships.<sup>14</sup>

Children are at greater risk for adverse consequences when born to a single mother because the social, emotional, and financial resources available to the family may be more limited.<sup>5</sup> The proportion of births to unmarried women is useful for understanding the extent to which children born in a given year may be affected by any disadvantage—social, financial, or health—associated with being born outside of marriage. The change in the percentage of births to unmarried women reflects changes in the birth rate for unmarried women relative to the birth rate for married women.<sup>15</sup>



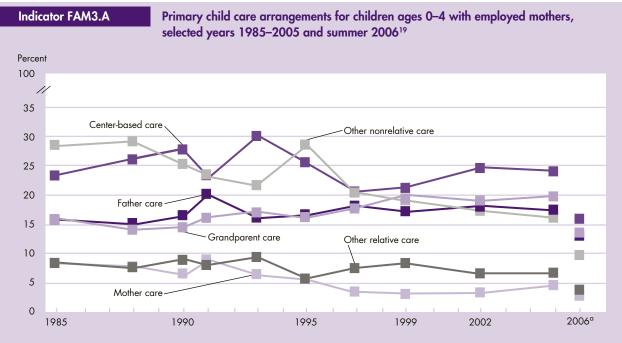
- In 2007, 40 percent of all births were to unmarried women.<sup>10</sup>
- The percentage of all births to unmarried women rose from 18 percent of total births in 1980 to 33 percent in 1994. From 1994 to 2002, the percentage ranged from 32 to 34 percent. The percentage increased more rapidly since 2002, reaching 40 percent in 2007.
- Between 1980 and 2007, the proportion of births to unmarried women rose for women in all age groups. Among adolescents, the proportion was high throughout the period and rose from 62 to 93 percent for ages 15–17 and from 40 to 82 percent for ages 18–19. The proportion more than tripled for births to women in their twenties, rising from 19 to 60 percent for ages 20–24 and from 9 to 32 percent for ages 25–29. The proportion of births to unmarried women in their thirties more than doubled, from 8 to 19 percent.<sup>8,11</sup>
- Nearly 4 in 10 total births, including more than 4 in 10 first births, were to unmarried women in 2006. Seven in 10 births to women under age 25 having their first child were nonmarital.<sup>16</sup>

- The increases in the proportion of births to unmarried women, especially during the 1980s, were linked to increases in the birth rates for unmarried women in all age groups during this period. In addition, the number of unmarried women increased more rapidly than the number of married women increased, as women from the baby boom generation postponed marriage.<sup>8,16,17</sup>
- During the late 1990s, the rate of increase in the proportion of births to unmarried women slowed. The comparative stability was linked to a renewed rise in birth rates for married women.<sup>6,8</sup> Since 2002, the rate of increase in the proportion of births to unmarried women has grown, reflecting increases, especially among adult women aged 20 and older, in nonmarital birth rates concurrent with relatively little change in birth rates for married women.<sup>8,16</sup>

Bullets contain references to data that can be found in Tables FAM2.A and FAM2.B on pages 96–97. Endnotes begin on page 73.

## **Child Care**

any children spend time with a child care provider other than their parents. This indicator presents two aspects of early childhood child care usage: a historical trend of the primary child care provider used by employed mothers for their young children and overall use of different providers regardless of parents' work status.<sup>18</sup>

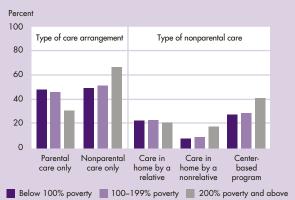


<sup>a</sup> SIPP child care data collected in 2006 cannot be compared directly with SIPP child care data from previous years due to seasonality differences such as preschool closings, seasonal variations in school activities, and availability of child care arrangements. The 2006 child care data were collected during summer months, whereas previous survey years typically collected data during spring or fall months. NOTE: The primary arrangement is the arrangement used for the most number of hours per week while the mother worked. SOURCE: U.S. Census Bureau, Survey of Income and Program Participation.

#### **Indicator FAM3.A**

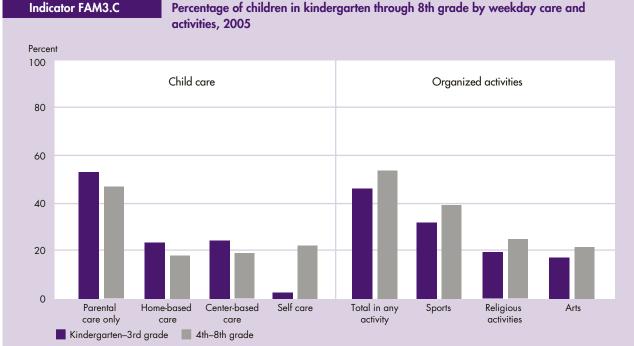
- FAM3.A provides information about primary child care arrangements for preschoolers with employed mothers for selected years and for the summer months of 2006, thus providing a unique opportunity to examine summer child care patterns. Summer child care arrangements for preschoolers follow a similar pattern seen in non-summer months in that relatives play a primary role. Specifically, during the summer months of 2006, 32 percent of children ages 0-4 with employed mothers were primarily cared for by a relative: their father, grandparent, sibling, other relative, or mother while she worked. Sixteen percent spent time in a centerbased arrangement (day care, nursery school, preschool, or Head Start). Ten percent were primarily cared for by a nonrelative in a home-based environment such as a family day care provider, nanny, babysitter, or au pair.
- Among children in families in poverty during the summer months of 2006, 12 percent were in center-based care as their primary arrangement, while 5 percent were with other relatives. Comparatively, a larger percentage of children in families at or above the poverty line were in center-based care (16 percent), and a smaller percentage were cared for by other relatives (4 percent).

#### Indicator FAM3.B Percentage of children ages 0–6 not yet in kindergarten by type of care arrangement and poverty status, 2005



NOTE: Respondents indicated whether children had weekly nonparental care arrangements, regardless of the amount of time spent in such care. Some children participated in more than one type of arrangement, so the sum of all arrangement types exceeds the total percentage in nonparental care. Center-based programs included day care centers, prekindergartens, nursery schools, Head Start programs, and other early childhood education programs. Relative and nonrelative care could have taken place in either the child's own home or another home.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program. School-age children may spend their weekday, nonschool time in child care arrangements, and also may engage in a variety of enrichment activities such as sports, arts, clubs, academic activities, religious activities, and community service. In addition, some children care for themselves without adult supervision for some time during the week. This measure presents the most recent data available on how grade-school-age children spend their out-of-school time.



NOTE: Some children participate in more than one type of care arrangement or activity. For self care, parents reported that their child is responsible for himself/herself before or after school on a regular basis. Parents reported on organized before- or after-school activities that are undertaken by their child on a regular basis.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program.

#### Indicator FAM3.B

- In 2005, 61 percent of children ages 0–6 who were not yet in kindergarten (about 12 million children) received some form of child care on a regular basis from persons other than their parents. This is about the same proportion of children in child care as in 1995.
- Patterns of child care vary by the poverty status of the child's family. In 2005, children ages 0–6 in families with incomes at least twice the poverty level were more likely than children in families with incomes below the poverty level and children in families with incomes 100–199 percent of the poverty level to be in nonparental care (68 percent versus 51 and 53 percent, respectively). In addition, children in families with incomes at least twice the poverty level were more likely than children in families with incomes at least twice the poverty level were more likely than children in families with lower incomes to be in home care by a nonrelative or in center-based programs such as nursery schools and other early childhood education programs.

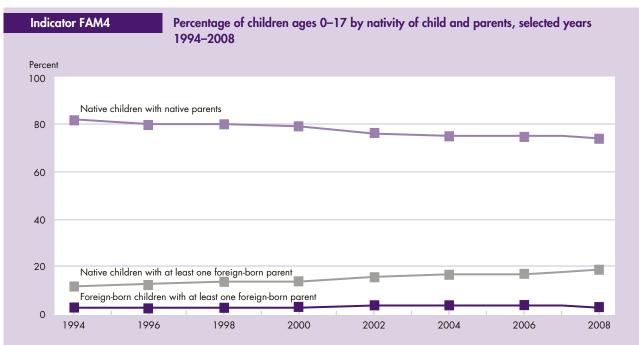
#### Indicator FAM3.C

- In 2005, 47 percent of children in kindergarten through 3rd grade and 53 percent of those in 4th through 8th grade received some nonparental child care.
- In 2005, parents reported that older children were more likely to care for themselves before or after school than were younger children: 3 percent of children in kindergarten through 3rd grade and 22 percent of children in 4th through 8th grade cared for themselves regularly either before or after school.
- Children in the higher grades were more likely to engage in some kind of organized before- or after-school activity than were children in the lower grades. Children from families in poverty were less likely than those in families at or above poverty to participate in activities. Children in kindergarten through 8th grade were more likely to participate in sports than in any other activity.

Bullets contain references to data that can be found in Tables FAM3.A–FAM3.C on pages 98–103. Endnotes begin on page 73.

### Children of at Least One Foreign-Born Parent

The foreign-born population of the United States has grown since 1970.<sup>20</sup> This increase in the past generation has largely been due to immigration from Latin America and Asia, and has led to an increase in the diversity of language and cultural backgrounds of children growing up in the United States.<sup>21</sup> As a result of language and cultural barriers confronting children and their parents, children with foreign-born parents may need additional resources both at school and at home.<sup>22</sup>



NOTE: Includes children under 18 in households. Children living in households with no parents present are not shown in this figure, but are included in the bases for the percentages. Native parents means that all of the parents that the child lives with are native-born, while foreign-born means that one or both of the child's parents are foreign-born. Anyone with U.S. citizenship at birth is considered native, which includes people born in the United States and in U.S. outlying areas, and people born abroad with at least one American parent. Foreign-born children with native parents are included in the native children with native parents category. Prior to 2007, Current Population Survey (CPS) data identified only one parent on the child's record. This meant that a second parent could only be identified if they were married to the first parent. In 2007, a second parent identifier was added to CPS. This permits identification of two coresident parents, even if the parents are not married to each other.

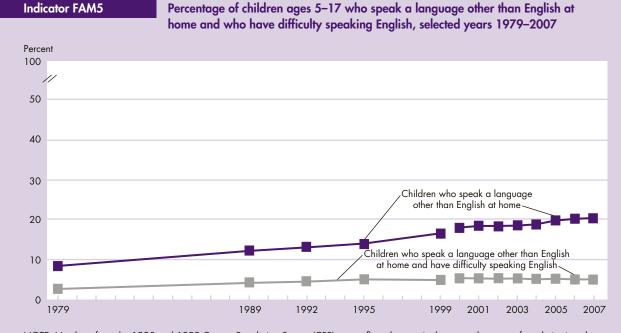
SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.

- In 2008, 19 percent of children were native children with at least one foreign-born parent, and 3 percent were foreign-born children with at least one foreign-born parent. Overall, the percentage of all children living in the United States with at least one foreign-born parent rose from 15 percent in 1994 to 22 percent in 2008.
- In 2008, 29 percent of foreign-born children with at least one foreign-born parent, 26 percent of native children with at least one foreign-born parent, and 7 percent of native children with native parents had a parent with less than a high school diploma or equivalent credential.<sup>23</sup>
- In 2008, 30 percent of foreign-born children with foreign-born parents lived below the poverty line, compared with 21 percent of native children with foreign-born parents and 16 percent of native children with native parents.
- Regardless of their own nativity status, children with at least one foreign-born parent more often lived in a household with two parents present than did children with no foreign-born parents. In 2008, 84 percent of native children with at least one foreign-born parent lived with two parents, compared with 70 percent of children with two native parents.

Bullets contain references to data that can be found in Table FAM4 on pages 104–106. Endnotes begin on page 73.

### Language Spoken at Home and Difficulty Speaking English

hildren who speak languages other than English at home and who also have difficulty speaking English<sup>24</sup> may face greater challenges progressing in school and in the labor market. Once it is determined that a student speaks another language, school officials must, by law, evaluate the child's English ability to determine whether the student needs services (such as special instruction to improve his or her English) and provide these services if needed.



NOTE: Numbers from the 1995 and 1999 Current Population Survey (CPS) may reflect changes in the survey because of newly instituted computer-assisted interviewing techniques and/or because of the change in the population controls to the 1990 Census-based estimates, with adjustments. A break is shown in the lines between 1999 and 2000 because data from 1979 to 1999 come from the CPS, while beginning in 2000 the data come from the American Community Survey (ACS). The questions were the same on the CPS and the ACS questionnaires. SOURCE: U.S. Census Bureau, October (1992, 1995, and 1999) and November (1979 and 1989) Current Population Surveys, and 2000–2007 American Community Survey.

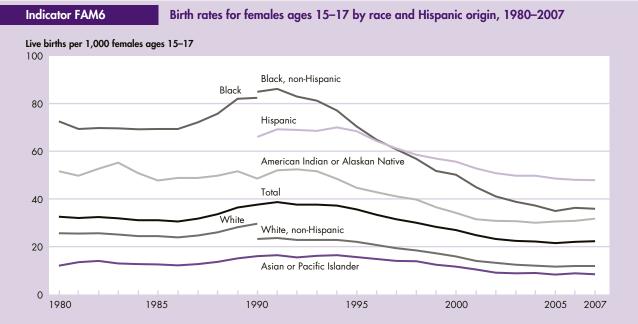
- In 2007, 21 percent of school-age children spoke a language other than English at home and 5 percent of school-age children both spoke a language other than English at home and had difficulty speaking English.
- In 2007, the percentage of school-age children who spoke a language other than English at home varied by region of the country, from a low of 11 percent in the Midwest to a high of 34 percent in the West.
- In 2007, the percentage of school-age children who had difficulty with English also varied by region, from a low of 3 percent in the Midwest to a high of 9 percent in the West.
- In 2007, 64 percent of school-age Asian children and 68 percent of school-age Hispanic children spoke a language other than English at home, compared with 6 percent of school-age White, non-Hispanic children and 5 percent of school-age Black, non-Hispanic children.<sup>2</sup>

- In 2007, 16 percent of school-age Asian children and 18 percent of school-age Hispanic children both spoke another language at home and had difficulty with English, compared with about 1 percent of both school-age White, non-Hispanic children and school-age Black, non-Hispanic children.<sup>25</sup>
- About 6 percent of school-age children spoke a language other than English at home and lived in a linguistically isolated household in 2007. A linguistically isolated household is one in which all persons age 14 or over speak a language other than English at home and no person age 14 or over speaks English "Very well."

Bullets contain references to data that can be found in Table FAM5 on pages 107–110. Endnotes begin on page 73.

### **Adolescent Births**

Bearing a child during adolescence is often associated with long-term difficulties for the mother and her child. These consequences are often attributable to poverty and other adverse socioeconomic circumstances that frequently accompany early childbearing.<sup>26</sup> Compared with babies born to older mothers, babies born to adolescent mothers, particularly young adolescent mothers, are at higher risk of low birthweight and infant mortality.<sup>69,27</sup> They are more likely to grow up in homes that offer lower levels of emotional support and cognitive stimulation and they are less likely to earn high school diplomas. For the mothers, giving birth during adolescence is associated with limited educational attainment, which in turn can reduce employment prospects and earnings potential.<sup>28</sup> The birth rate of adolescents under age 18 is a measure of particular interest because the mothers are still of school age.



NOTE: Data for 2007 are preliminary. Race refers to mother's race. The 1977 OMB Standards for Data on Race and Ethnicity were used to classify persons into one of the following four racial groups: White, Black, American Indian or Alaskan Native, or Asian or Pacific Islander. Although state reporting of birth certificate data is transitioning to comply with the 1997 OMB standard for race and ethnic statistics, data from states reporting multiple races were bridged to the single-race categories of the 1977 OMB standards for comparability with other states and for trend analysis. Rates for 1980–1989 are not shown for Hispanics; White, non-Hispanics; or Black, non-Hispanic because information on Hispanic origin of the mother was not reported on birth certificates of most states and because population estimates by Hispanic ending the reporting states were not available. Data on race and Hispanic origin are collected and reported separately. Persons of Hispanic origin may be of any race.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

- In 2007, the adolescent birth rate was 22.2 per 1,000 adolescents ages 15–17. There were 140,640 births to these adolescents in 2007 according to preliminary data. The 2007 rate was higher than the 2006 rate of 22.0 per 1,000. This was the second consecutive year of increase in this measure since the long-term decline beginning 1991–1992.<sup>6,10,11</sup>
- The birth rate among adolescents ages 15–17 declined from 38.6 to 21.4 births per 1,000, between 1991 and 2005. This decline followed an increase between 1986 and 1991.
- There remain substantial racial and ethnic disparities among the birth rates for adolescents ages 15–17. In 2007, the birth rates for this age group were 8.4 for Asians or Pacific Islanders, 11.8 for White, non-Hispanics, 31.7 for American Indians or Alaskan Natives, 35.8 for Black, non-Hispanics, and 47.8 for Hispanics.<sup>10</sup>
- The birth rate for Black, non-Hispanic and White, non-Hispanic females ages 15–17 dropped more than

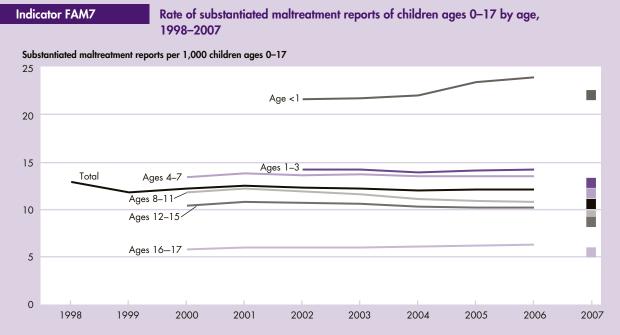
half between 1991 and 2005, completely reversing the increase between 1986 and 1991. Rates for both groups increased in 2006 and were statistically unchanged in 2007.

- The birth rate for Hispanic adolescents in this age group fell during 1991 to 2007, although at a slower pace than for Black and White non-Hispanic adolescents. Most of the decline for Hispanic adolescents occurred by 2003.<sup>10,11</sup>
- In 2007, 93 percent of births to females ages 15–17 were to unmarried mothers, compared with 62 percent in 1980 (See FAM2.B).
- The rates of first and second births for females ages 15–17 declined by two-fifths and nearly two-thirds, respectively, between 1991 and 2005; both rates rose slightly in 2006.<sup>6</sup>

Bullets contain references to data that can be found in Table FAM6 on pages 111–112. Endnotes begin on page 73.

#### **Child Maltreatment**

hild maltreatment includes physical, sexual, and psychological abuse, as well as neglect (including medical neglect). Maltreatment in general is associated with a number of negative outcomes for children, including lower school achievement, juvenile delinquency, substance abuse, and mental health problems.<sup>29</sup> Certain types of maltreatment can result in long-term physical, social, and emotional problems, and even death. For example, "shaken baby syndrome" can result in mental retardation, cerebral palsy, or paralysis. Child maltreatment includes both fatal and nonfatal maltreatment.



NOTE: The count of child victims is based on the number of investigations by Child Protective Services that found the child to be a victim of one or more types of maltreatment. The count of victims is, therefore, a report-based count and is a "duplicated count," since an individual child may have been maltreated more than once. The number of states reporting varies from year to year. States vary in their definition of abuse and neglect. Data from 2007 are not directly comparable with prior years as differences may be partially attributed to changes in one state's procedures for determination of maltreatment. Other reasons include the increase in children who received an "other" disposition, the decrease in the percentage of children who received a substantiated or indicated disposition, and the decrease in the number of children who received an investigation or assessment.

SOURCE: Administration for Children and Families, National Child Abuse and Neglect Data System.

- In 2007, the rate of substantiated reports of child maltreatment was 11 per 1,000 children ages 0–17.<sup>30</sup>
- From 1998 through 2002, the rate of substantiated reports of child maltreatment varied between 12 and 13 reports per 1,000 children and remained at approximately 12 reports per 1,000 children between 2002 and 2006.
- Younger children are more frequently victims of child maltreatment than older children. In 2007, there were 22 substantiated child maltreatment reports per 1,000 children under age 1, compared with 13 for children ages 1–3, 12 for children ages 4–7, 9 for children ages 8–11, 9 for children ages 12–15, and 5 for adolescents ages 16–17.
- Higher rates of maltreatment were reported for girls than boys (11 reports per 1,000 for females vs. 10 for males).
- While neglect is the most common type of maltreatment across all age groups, types of

maltreatment vary by age. In 2007, 79 percent of substantiated child maltreatment reports for children ages 0–3 involved neglect, compared to 62 percent for adolescents ages 16–17. Twenty-one percent of substantiated reports for adolescents ages 16–17 involved physical abuse and 17 percent involved sexual abuse. Among substantiated reports for children ages 0–3, 13 percent involved physical abuse and 2 percent involved sexual abuse.

In 2007, Black, non-Hispanic children had the highest rates of substantiated child maltreatment reports (17 reports per 1,000 children), followed by American Indian or Alaska Native children (14), children of two or more races (14), Native Hawaiian or Other Pacific Islander children (14), Hispanic children (10), White, non-Hispanic children (9), and Asian children (2).

Bullets contain references to data that can be found in Tables FAM7.A and FAM7.B on pages 113–114. Endnotes begin on page 73.

#### **Indicators Needed**

#### **Family and Social Environment**

Current data collection systems at the national level do not provide extensive detailed information on children's families, their caregivers, or their social environments. Certain topical databases provide some of this information, but data need to be collected regularly across domains of child well-being. More details are needed on the following topics:

- Family structure. Increasing the detail of information collected about family structure and improving the measurement of cohabitation and family dynamics were among the key suggestions for improvement emerging from two "Counting Couples" workshops sponsored by the Forum.
- Time use. Currently, some Federal surveys collect information on the amount of time children spend on certain activities such as watching television and on participation rates in specific activities or care arrangements, but no Federal data source examines time spent on the whole spectrum of children's activities. In 2003, the U.S. Bureau of Labor Statistics began the American Time Use Survey (ATUS), which measures the amount of time people spend doing various activities, such as paid work, childcare, volunteering, and socializing. The survey includes responses from persons age 15 and older. Since the numbers of observations for older youth are small, the data cannot be published separately for each year. ATUS data may be included in future America's

*Children* reports as a regular indicator as more years of data become available. Forum agencies continue to be interested in the inclusion of time use questions for youth in other surveys, as appropriate.

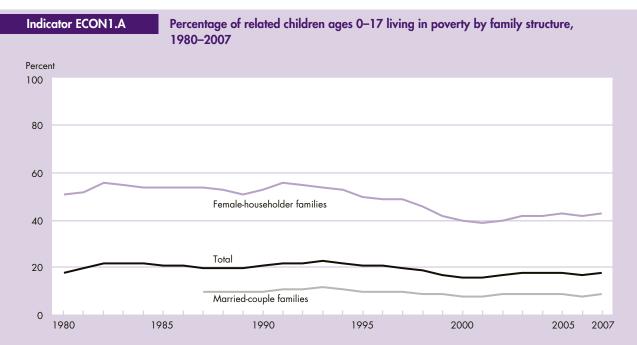
Social connections and engagement. The formation of close attachments to family, peers, school, and community have been linked to healthy youth development in numerous research studies. Additional research needs to be conducted to strengthen our understanding of how these relationships promote healthy development and protect youth from risks that, in turn, affect later life success. We currently lack regular indicators on aspects of healthy development, such as relationships with parents and peers, connections to teachers and school engagement, and civic or community involvement. To that end, the Forum co-sponsored the Indicators of Positive Development conference to define and measure healthy youth development and continues to be interested in developing appropriate measures of social connection and engagement.

## **Economic Circumstances**

The well-being of children depends greatly on the economic circumstances and material well-being of their families. This section presents information on the economic resources of children's households and on their food-related well-being. Indicators of economic resources include income and poverty status of children's families and an indicator on secure employment of children's parents. An indicator on food security presents information on families with children that report difficulty obtaining adequate food. These indicators provide a broad perspective on children's economic situations.

### **Child Poverty and Family Income**

hildren in low-income families fare less well than children in more affluent families on many of the indicators in this report.<sup>31</sup> Compared with children living in families that are not in poverty, children living in poverty are more likely to have difficulty in school, to become teen parents, and, as adults, to earn less and be unemployed more frequently.<sup>32,33</sup> This indicator is based on the official poverty measure for the United States as defined in Office of Management and Budget Statistical Policy Directive 14.<sup>34</sup>

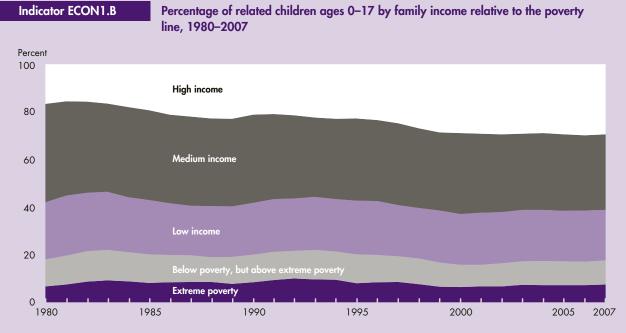


NOTE: Estimates for related children ages 0–17 include children related to the householder (or reference person of an unrelated subfamily) who are not themselves a householder or spouse of the householder (or family reference person). In 2007, the average poverty threshold for a family of four was \$21,203.

SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.

- In 2007, 18 percent of all children ages 0–17 lived in poverty, an increase from 17 percent in 2006. Compared with White, non-Hispanic children, the poverty rate was higher for Black children and for Hispanic children. In 2007, 10 percent of White, non-Hispanic children, 35 percent of Black children, and 29 percent of Hispanic children lived in poverty.<sup>2,31</sup>
- As was the case for all children, the percentage of related children with family incomes below the poverty threshold was higher in 2007 (18 percent) than in 2006 (17 percent). The poverty rate for related children has fluctuated since the early 1980s, reaching a peak of 22 percent in 1993 and a low of 16 percent in 2000.
- The poverty rate for children living in female-householder families (no spouse present) also fluctuated between 1980 and 1994; it then declined between 1994 and 2000 by more than the decline in the poverty rate for all children in families. In 1994, 53 percent of children living in femalehouseholder families were living in poverty; by 2007, this proportion was 43 percent.

- Children in married-couple families were less likely to live in poverty than children living in female-householder families. In 2007, 9 percent of children in married-couple families were living in poverty, compared with 43 percent in female-householder families.
- Related children ages 0–5 were more likely to be living in families with incomes below the poverty line than those ages 6–17. In 2007, 21 percent of related children ages 0–5 lived in poverty, compared with 16 percent of older related children.
- In 2007, some 5 percent of White, non-Hispanic children in married-couple families lived in poverty, compared with 32 percent of White, non-Hispanic children in female-householder families. Eleven percent of Black children in married-couple families lived in poverty, compared with 50 percent of Black children in female-householder families. Nineteen percent of Hispanic children in married-couple families lived in poverty, compared with 52 percent of Hispanic children in female-householder families.<sup>35</sup>



The distribution of the income of children's families provides a broader picture of children's economic situations.

NOTE: Estimates refer to children ages 0–17 who are related to the householder. The income classes are derived from the ratio of the family's income to the family's poverty threshold. A child living in extreme poverty is defined as a child living in a family with income less than 50 percent of the poverty threshold. Below poverty, but above extreme poverty is defined as 50–99 percent of the poverty threshold. Low income is defined as 100–199 percent of the poverty threshold. Medium income is defined as 200–399 percent of the poverty threshold. High income is defined as being at or above 400 percent of the poverty threshold. For example, in 2007, a family of four with two children would be in extreme poverty if their income was less than \$10,514 (50 percent of \$21,027). The same family would be classified as low income if their income was at least \$21,027 and less than \$42,054.

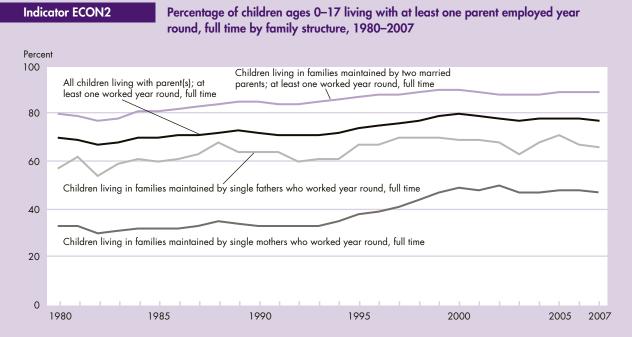
SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements.

- In 2007, more children lived in families with medium income (32 percent) than in families in other income groups. Fewer children lived in families with low income and with high income (21 and 30 percent, respectively) than lived in families with medium income.
- The percentage of children living in families with medium income was lower in 2007, at 32 percent, than in 1980, at 41 percent. Conversely, the percentage of children living in families with high income was higher in 2007, at 30 percent, than in 1980, at 17 percent.
- The percentage of children living in families classified as in extreme poverty was 6.6 percent in 1980. This percentage rose to 10 percent in 1992 and decreased to 7.4 percent in 2007. The percentage of children who lived in families with very high incomes (600 percent or more of the poverty threshold) was two times higher in 2007 than in 1980 (13 percent and 4 percent, respectively).

Bullets contain references to data that can be found in Tables ECON1.A and ECON1.B on pages 115–120. Endnotes begin on page 73.

#### Secure Parental Employment

Secure parental employment reduces the incidence of poverty and its attendant risks to children. Since most parents who obtain health insurance for themselves and their children do so through their employers, a secure job can also be a key variable in determining whether children have access to health care. Secure parental employment may also enhance children's psychological well-being and improve family functioning by reducing stress and other negative effects that unemployment and underemployment can have on parents.<sup>36,37</sup> One measure of secure parental employment is the percentage of children whose resident parent or parents were employed full time during a given year.



SOURCE: U.S. Bureau of Labor Statistics, Current Population Survey, Annual Social and Economic Supplements.

- The percentage of children who had at least one parent working year round, full time was 77 percent in 2007, down from 78 percent in 2006 and below the peak of 80 percent in 2000. This proportion has remained relatively high, given its historical context; in the early 1990s, the proportion was 72 percent.
- In 2007, 89 percent of children living in families maintained by two married parents had at least one parent who worked year round, full time. In contrast, 66 percent of children living in families maintained by a single father and 47 percent of children living in families maintained by a single mother had a parent who worked year round, full time.
- Children living in poverty were much less likely to have a parent working year round, full time than children living at or above the poverty line (32 percent and 87 percent, respectively, in 2007). In 2007, 54 percent of children living in families maintained by two married

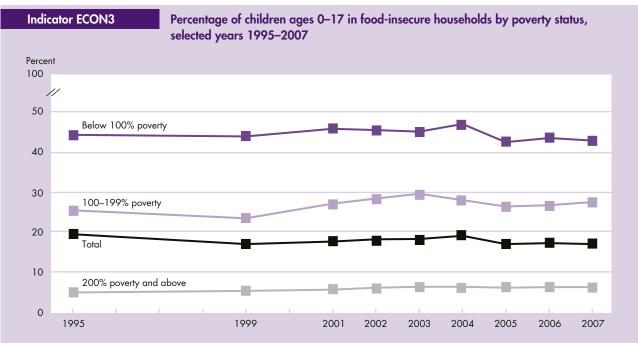
parents who were living below the poverty line had at least one parent working year round, full time, compared with 92 percent of children living at or above the poverty line.

- Black, non-Hispanic children and Hispanic children were less likely than White, non-Hispanic children to have a parent working year round, full time. About 72 percent of Hispanic children and 64 percent of Black, non-Hispanic children lived in families with secure parental employment in 2007, compared with 82 percent of White, non-Hispanic children.
- In 2007, 32 percent of children in married two-parent families had both parents working year round, full time. This proportion is up from its most recent low in 2003 (29 percent).

Bullets contain references to data that can be found in Table ECON2 on pages 121–122. Endnotes begin on page 73.

### **Food Security**

family's ability to provide for its children's nutritional needs is linked to the family's food security—that is, to its access at all times to adequate food for an active, healthy life.<sup>38</sup> The food security status of households is based on self-reports of difficulty in obtaining enough food, reduced food intake, reduced diet quality, and anxiety about an adequate food supply. In some households classified as food insecure, only adults' diets and food intakes were affected, but in a majority of such households, children's eating patterns were also disrupted to some extent and the quality and variety of their diets were adversely affected.<sup>39</sup> In a subset of food-insecure households—those classified as having very low food security among children—a parent or guardian reported that at some time during the year one or more children were hungry, skipped a meal, or did not eat for a whole day because the household could not afford enough food.<sup>40</sup>



NOTE: Food-insecure households are those in which either adults or children or both were food insecure. At times they were unable to acquire adequate food for active, healthy living for all household members because they had insufficient money and other resources for food. Statistics for 1996–1998 and 2000 are omitted because they are not directly comparable with those for other years.

SOURCE: U.S. Census Bureau, Current Population Survey Food Security Supplement; tablulated by U.S. Department of Agriculture, Economic Research Service and Food and Nutrition Service.

- About 12.4 million children (17 percent of all children) lived in households that were classified as food insecure at times in 2007. About 691,000 of these children (0.9 percent of all children) lived in households classified as having very low food security among children.
- The percentage of children living in food-insecure households in 2007 was essentially unchanged from 2005 and 2006 and was lower than the 19 percent observed in 2004. The percentage of children living in households with very low food security among children increased from 0.6 percent in 2006 to 0.9 percent in 2007.
- In 2007, the proportions of children living in food-insecure households were substantially above the national average (17 percent) for those living in poverty (43 percent), Black, non-Hispanics (26 percent), Hispanics (27 percent), those whose parents or guardians lacked a high school diploma or GED (38 percent), and those living with a single mother (32 percent).

Bullets contain references to data that can be found in Table ECON3 on pages 123–124. Endnotes begin on page 73.

#### **Indicators Needed**

#### **Economic Circumstances**

Economic security is multifaceted; therefore, several measures are needed to adequately represent it. While this year's report continues to provide some information on economic and food security, additional indicators are needed on:

- *Economic well-being.* Economic well-being over time needs to be anchored in an average standard of living context. Multiple measures of family income or consumption, some of which might incorporate estimates of various family assets, could produce more reliable estimates of changes in children's economic wellbeing over time.
- Long-term poverty among families with children. Although Federal data are available on child poverty (see Indicators ECON1.A and ECON1.B, Child Poverty and Family Income), the surveys that collect these data do not capture information on long-term poverty. Existing longitudinal survey data are available for identifying children living in poverty continually for a period of time and for producing estimates of the duration of poverty. However, those data are not available on a regular basis. The U.S. Census Bureau currently has longitudinal estimates of poverty for the 2001 to 2003 period based on the Survey of Income

and Program Participation (SIPP) 2001 Panel. Estimates from the 2004 Panel of SIPP, covering the period 2004 to 2006, will be available later this year. Data from the 2008 Panel will not be available for several more years. Since long-term poverty can have serious negative consequences for children's well-being, regularly collected and reported estimates are needed.

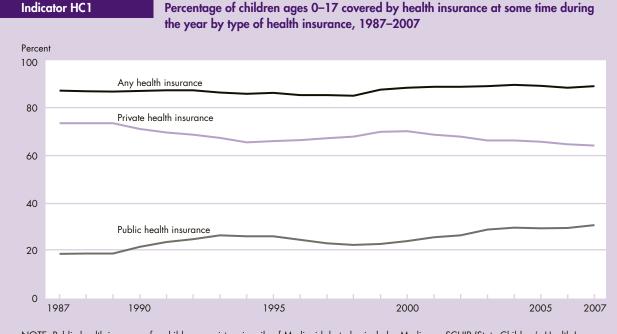
Homelessness. The Annual Homeless Assessment Report offers Congress a yearly update on the number of homeless people counted at a point in time by communities and of homeless people in shelters over time using local Homeless Management Information System (HMIS) data. The Forum is encouraged by the recent progress that has been made in the availability of data on homelessness. As a result, the U.S. Department of Housing and Urban Development hopes to be able to present information on the number of homeless children in future America's Children reports.

## **Health Care**

Health care comprises the prevention, treatment, and management of illness and the preservation of mental and physical well-being through services offered by health professionals. Effective health care is an important aspect of promoting good health outcomes. This section presents information on selected determinants of health care utilization for children (e.g., having health insurance coverage and having a usual source of health care) and measures of utilization of health care (e.g., childhood immunization, children having a dental visit, and children with untreated dental caries).

#### Health Insurance Coverage

hildren with health insurance, whether public or private, are more likely than children without insurance to have a regular and accessible source of health care. The percentage of children who have health insurance coverage for at least part of the year is one measure of the extent to which families can obtain preventive care or health care for a sick or injured child.



NOTE: Public health insurance for children consists primarily of Medicaid, but also includes Medicare, SCHIP [State Children's Health Insurance Programs], and CHAMPUS/Tricare, the health benefit program for members of the armed forces and their dependents. Estimates beginning in 1999 include follow-up questions to verify health insurance status. Children are considered to be covered by health insurance if they had public or private coverage any time during the year. The data from 1996 to 2004 have been revised since initially published. For more information, see http://www.census.gov/hhes/www/hlthins/usernote/schedule.html.

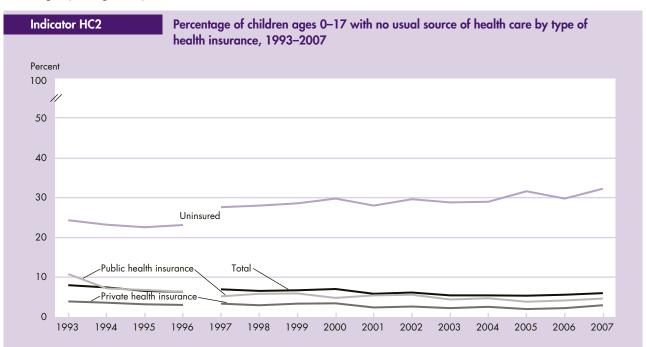
SOURCE: U.S. Census Bureau, unpublished tables from the Current Population Survey, Annual Social and Economic Supplements.

- In 2007, 89 percent of children had health insurance coverage at some point during the year, up from 88 percent in 2006. In each year since 1987, between 85 and 90 percent of children have had health insurance.
- The number of children without health insurance at any time during 2007 was 8.1 million (11 percent of all children).
- In 2007, 64 percent of children were covered by private health insurance at some time during the year and 31 percent were covered by public health insurance at some time during the year. (Both estimates include the children covered by both public and private at some time during the year; hence, the estimates sum to more than the estimated 89 percent of children with coverage.)
- Hispanic children were less likely to have health insurance, compared to White, non-Hispanic or Black children. In 2007, 80 percent of Hispanic children were covered at some time during the year by health insurance, compared with 93 percent of White, non-Hispanic children and 88 percent of Black children.<sup>2</sup>
- The type of insurance varied by the age of the child: younger children were more likely to have public health insurance than older children, while older children were more likely to have private health insurance than younger children.

Bullets contain references to data that can be found in Table HC1 on pages 125–126. Endnotes begin on page 73.

#### **Usual Source of Health Care**

he health of children depends at least partially on their access to health services. Health care for children includes physical examinations, preventive care, health education, observations, screening, immunizations, and sick care.<sup>41</sup> Having a usual source of care—a particular person or place a child goes for sick and preventive care—facilitates the timely and appropriate use of pediatric services.<sup>42,43</sup> Emergency rooms are excluded here as a usual source of care because their focus on emergency care generally excludes the other elements of health care.<sup>44</sup>



NOTE: Children with both public and private insurance coverage are placed in the private insurance group. Emergency rooms are excluded as a usual source of care. A break is shown in the lines because in 1997 the National Health Interview Survey was redesigned. Data for 1997–2007 are not strictly comparable with earlier data.

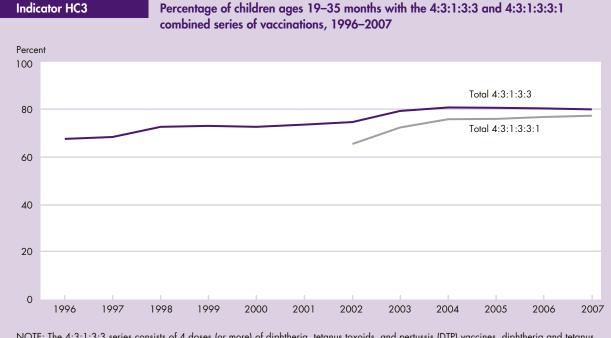
SOURCE: National Center for Health Statistics, National Health Interview Survey.

- In 2007, 6 percent of children had no usual source of health care.
- Uninsured children are much more likely to have no usual source of care than are children who have health insurance. For example, 32 percent of children who were not insured had no usual source of health care. This was 11 times the percentage of children with private health insurance who had no usual source of health care (3 percent).
- There are differences in the percentage of children having no usual source of care by type of health insurance coverage. In 2007, children with public insurance, such as Medicaid, were more likely to have no usual source of care than were children with private insurance (5 percent and 3 percent, respectively).
- In 2007, 10 percent of children living below the poverty level and 9 percent of children living in families with incomes 100–199 percent of the poverty level had no usual source of health care, compared to 4 percent of children with family incomes 200 percent or more of the poverty level.
- Older children are slightly more likely than younger children to lack a usual source of health care. In 2007, 7 percent of children ages 6–17 had no usual source of care, compared with 4 percent of children ages 0–5.

Bullets contain references to data that can be found in Table HC2 on page 127. Endnotes begin on page 73.

#### **Childhood Immunization**

R ates of childhood immunization are one measure of how extensively children are protected from serious vaccinepreventable illnesses. Combined immunization series (often referred to as the 4:3:1:3:3 or 4:3:1:3:3:1 combined series) rates measure receipt of the number of doses of the five or six vaccinations that have been recommended since 1991 or earlier.



NOTE: The 4:3:1:3:3 series consists of 4 doses (or more) of diphtheria, tetanus toxoids, and pertussis (DTP) vaccines, diphtheria and tetanus toxoids (DT), or diphtheria, tetanus toxoids, and any acellular pertussis (DTaP) vaccines; 3 doses (or more) of poliovirus vaccines; 1 dose (or more) of any measles-containing vaccine; 3 doses (or more) of *Haemophilus influenzae* type b (Hib) vaccines; and 3 doses (or more) of hepatitis B vaccines. The 4:3:1:3:3:1 series consists of the 4:3:1:3:3 series plus 1 dose (or more) of varicella vaccine. The collection of coverage rate estimates for this series began in 2002. The recommended immunization schedule for children is available at http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#printable.

SOURCE: Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases and National Center for Health Statistics, National Immunization Survey.

- In 2007, 80 percent of children ages 19–35 months had received the recommended combined five-vaccine series, and 77 percent of children ages 19–35 months had received the recommended combined six-vaccine series.
- The combined five-vaccine series percentages have remained relatively stable since 2003. Reporting the combined six-vaccine series began in 2002, and percentages have steadily increased from 66 percent.
- Children in families below the poverty level had a lower rate of coverage (77 percent) with the combined fivevaccine series than children at or above the poverty level (81 percent), and children in families below the poverty level had a lower rate of coverage (75 percent) with the combined six-vaccine series than children at or above the poverty level (78 percent).
- Coverage with the combined five-vaccine series was higher among White, non-Hispanic children than among Black, non-Hispanic children. Eighty-one percent of White, non-Hispanic children received these vaccinations, compared with 78 percent of Black, non-Hispanic children. Coverage with the combined

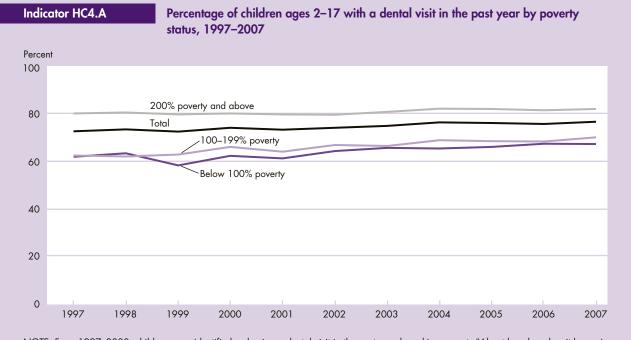
six-vaccine series was similar across all racial and ethnic groups.

- In 2007, the total coverage rate for each individual vaccine in the combination series was greater than or equal to 90 percent, except for children receiving four doses (or more) of the diphtheria, tetanus toxoids, and pertussis (DTP) vaccine. The total coverage rate for DTP was 85 percent and has not changed during the past 5 years (DTP is any diphtheria, tetanus toxoids, and pertussis vaccines, including diphtheria, tetanus toxoids, toxoids and any acellular pertussis vaccine).
- In 2007, 75 percent of children ages 19–35 months received four doses (or more) of pneumococcal conjugate vaccine (PCV). This vaccine was recommended in 2000, and the full series includes four doses. Shortages occurred during 2001–2004, so recommendations were made to defer the third dose or third and fourth doses.<sup>45</sup>

Bullets contain references to data that can be found in Table HC3 on pages 128–129. Endnotes begin on page 73.

### **Oral Health**

ral health is an essential and integral component of health.<sup>46</sup> Good oral health requires both self-care and professional care. Regular dental visits provide an opportunity for prevention, early diagnosis, and treatment of oral and craniofacial diseases and conditions. Routine dental visits are recommended by the American Academy of Pediatric Dentistry beginning at one year of age.<sup>47</sup> Dental caries (cavities) is the single most common disease of childhood.<sup>46</sup> Since the early 1970s, the prevalence of dental caries in permanent teeth has dramatically declined in school-age children due to prevention efforts such as community water fluoridation programs and increased use of toothpastes containing flouride.<sup>46</sup> Dental caries, however, remains a significant problem among certain racial or ethnic groups and among children in poverty.



NOTE: From 1997–2000, children were identified as having a dental visit in the past year by asking parents "About how long has it been since your child last saw or talked to a dentist?" In 2001 and later years, the question was "About how long has it been since your child last saw a dentist?" Parents were directed to include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists.

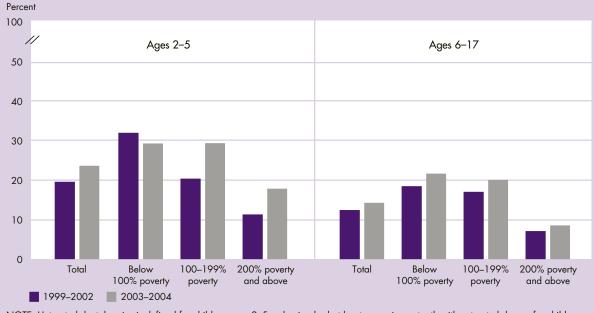
SOURCE: National Center for Health Statistics, National Health Interview Survey.

- In 2007, 77 percent of children ages 2–17 had a dental visit in the past year. This percentage has remained relatively constant since 1997, ranging from 73–77 percent.
- In 2007, 67 percent of children living below the poverty level and 70 percent of children living in families with incomes 100–199 percent of the poverty level had a dental visit in the past year, compared to 82 percent of children with family incomes 200 percent or more of the poverty level.
- Fifty-two percent of uninsured children ages 2–17 had a dental visit in the past year, compared with 73 percent of children receiving Medicaid or other public health insurance and 82 percent of children with private health insurance.

- From 1997 to 2007, children ages 2–5 were less likely to have had a dental visit in the past year (56 percent in 2007) than children ages 6–11 (85 percent in 2007) and adolescents ages 12–17 (83 percent in 2007).
- In 2007, among younger children ages 2–5, 58 percent with private health insurance had a dental visit, compared with 40 percent of uninsured children. Among older children ages 6–11, 90 percent with private health insurance had a dental visit in the past year, compared with 60 percent of uninsured children. Among adolescents ages 12–17, 90 percent with private health insurance had a dental visit in the past year, compared with 50 percent of uninsured children.



Percentage of children ages 2–17 with untreated dental caries (cavities) by age and poverty status, 1999–2002 and 2003–2004



NOTE: Untreated dental caries is defined for children ages 2–5 as having had at least one primary tooth with untreated decay; for children ages 6–17 it is defined as having had at least one permanent tooth with untreated decay; and for children ages 2–17 it is defined as having had at least one primary or permanent tooth with untreated decay. Thus, estimates for children ages 2–17 may be higher than estimates for children ages 2–5 and ages 6–17 combined.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey.

- In 2003–2004, 25 percent of children ages 2–17 had untreated dental caries (cavities) upon dental examination, an increase from 21 percent in 1999–2002.
- In 2003–2004, 23 percent of children ages 2–5 and 14 percent of children ages 6–17 had untreated dental caries.
- In 2003–2004, among children ages 2–5, 29 percent of children living in poverty or living in families with incomes between 100–199 percent of the poverty level had untreated dental caries, compared with 18 percent of children from families with incomes 200 percent or more of the poverty level.
- From 1999–2002 to 2003–2004, the percentage of children ages 2–5 who had untreated dental caries declined by 3 percentage points among children living in poverty, but increased among children in families with incomes 100–199 percent or 200 percent or more of the poverty line. The percentage of children ages 6–17 with untreated dental caries increased for all levels of family income.
- For both younger and older children, the percentage of children with untreated dental caries was higher among Mexican American children than among White, non-Hispanic and Black, non-Hispanic children.

Bullets contain references to data that can be found in Tables HC4.A and HC4.B on pages 130–132. Endnotes begin on page 73.

#### **Indicators Needed**

#### **Health Care**

This report provides information on a limited number of key indicators on health care. Information on other aspects of health care is needed in order to fully understand the effect of health care on children's well-being. Additional indicators are needed on:

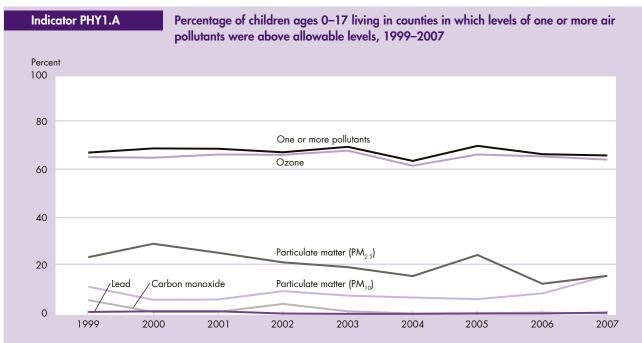
- Adequacy of health care coverage. This report contains information on whether children had health insurance coverage for at least part of the previous calendar year. Information is also needed on patterns of coverage and on the characteristics of the child's plan to determine whether the plan is adequate to meet health care needs.
- Quality and content of health care. This report contains information on children's usual source of health care and some aspects of health care utilization (e.g., immunizations), but additional regularly collected data are needed on the content and the quality of health care that children receive. High-quality health care has been defined as care that is safe, timely, effective, efficient, equitable, and patient-centered.<sup>48</sup>

# Physical Environment and Safety

The physical environment in which children live plays a role in their health, development, and safety. This section presents indicators on how environmental conditions such as outdoor and indoor air quality, drinking water quality, and exposure to lead may affect children. In addition, indicators of housing problems, youth victims of serious violent crimes, and child and adolescent injury and mortality are presented.

### **Outdoor and Indoor Air Quality**

he environment in which children live plays an important role in their health and development. Children may be more vulnerable than adults to the adverse effects of environmental contaminants in air, food, drinking water, and other sources because their bodies are still developing. In addition, children have increased potential for exposure to pollutants because they eat, drink, and breathe more, in proportion to the size of their bodies, than adults. One important measure of children's environmental health is the percentage of children living in areas in which air pollution levels are higher than the allowable levels of the Primary National Ambient Air Quality Standards.<sup>49</sup> These standards, established by the U.S. Environmental Protection Agency under the Clean Air Act, are designed to protect public health, including the health of susceptible populations such as children and individuals with asthma. Ozone, particulate matter, sulfur dioxide, and nitrogen dioxide are air pollutants associated with increased asthma episodes and other respiratory illnesses.<sup>50–53</sup> Lead can affect the development of the central nervous system in young children,<sup>54</sup> and exposure to carbon monoxide can reduce the capacity of blood to carry oxygen.<sup>55</sup>

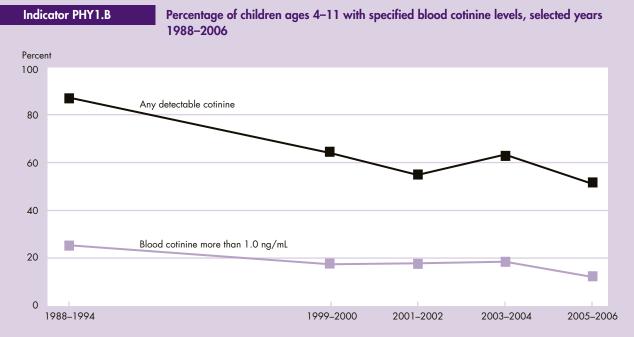


NOTE: The U.S. Environmental Protection Agency has set national air quality standards for six principal pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide ( $NO_2$ ), ozone ( $O_3$ ), particulate matter ( $PM_{10}$  and  $PM_2$ ), and sulfur dioxide ( $SO_2$ ). Nitrogen dioxide and sulfur dioxide are not included in the graph because all areas meet the Primary National Ambient Air Quality Standards for these pollutants. This analysis incorporates a new Primary National Ambient Air Quality Standard for ozone that was promulgated in 2008.

SOURCE: U.S. Environmental Protection Agency, Office of Air and Radiation, Air Quality System.

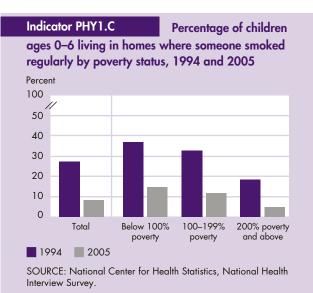
- In 2007, 66 percent of children lived in counties in which one or more air pollutants were above allowable levels.
- Ozone is the pollutant that is most often above the allowable levels as defined by the Primary National Ambient Air Quality Standards. Ozone, as well as particulate matter, can cause respiratory problems and aggravate respiratory diseases, such as asthma, in children.<sup>50,52,53</sup> These problems can lead to increased emergency room visits and hospitalizations.<sup>56–59</sup> In 2007, 64 percent of children lived in counties in which ozone concentrations were above allowable levels.
- In 2007, approximately 16 percent of children lived in counties where levels of fine particulate matter (PM<sub>2.5</sub>) were above the annual allowable standard, compared with 24 percent in 1999. The term "particulate matter" (PM) includes both solid particles and liquid droplets found in air.<sup>53</sup> Airborne particles measuring less than 10 micrometers in diameter (PM<sub>10</sub>) pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter (PM<sub>2.5</sub>) are referred to as "fine" particles and are believed to pose the largest health risks because they can lodge deeply in the lungs.

Children who are exposed to environmental tobacco smoke, also known as secondhand smoke, have an increased probability of experiencing such adverse health effects as infections of the lower respiratory tract, bronchitis, pneumonia, middle ear disease, sudden infant death syndrome (SIDS), and respiratory symptoms.<sup>60</sup> Secondhand smoke can also play a role in the development and exacerbation of asthma.<sup>60</sup> The U.S. Surgeon General has determined that there is no risk-free level of exposure to secondhand smoke.<sup>60</sup> Cotinine, a breakdown product of nicotine, is a marker for recent (previous 1–2 days) exposure to secondhand smoke.



NOTE: "Any detectable cotinine" indicates blood cotinine levels at or above 0.05 nanograms per milliliter (ng/ml), the detectable level of cotinine in the blood in 1988–1994. Cotinine levels are reported for nonsmoking children only. The average (geometric mean) blood cotinine level in children living in homes where someone smoked was 1.0 ng/mL in 1988–1994.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey.

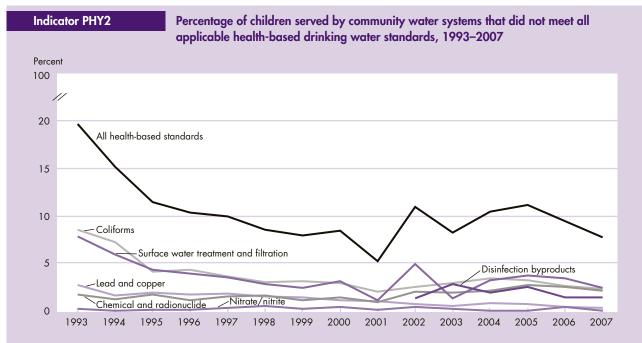


- The percentage of children ages 4–11 with detectable blood cotinine levels decreased from 88 percent in 1988–1994 to 51 percent in 2005–2006. In 2005–2006, 12 percent had blood cotinine levels more than 1.0 nanograms per milliliter (ng/mL), down from 26 percent in 1988–1994.
- In 2005, the percentage of children ages 0–6 living in homes where someone smoked regularly was 8 percent, compared with 27 percent in 1994.<sup>61</sup> Children living below the poverty level and Black, non-Hispanic children were more likely than their peers to be living in homes where someone smoked regularly.

Bullets contain references to data that can be found in Tables PHY1.A–PHY1.C on pages 133–134. Endnotes begin on page 73.

### **Drinking Water Quality**

ontaminants in surface and ground waters that serve as sources of drinking water may be quite varied and may cause a range of diseases in children, including acute diseases such as gastrointestinal illness, developmental effects such as learning disorders, and serious long-term illnesses such as cancer.<sup>62</sup> The U.S. Environmental Protection Agency (EPA) sets drinking water standards designed to protect people against adverse health effects. These standards currently include Maximum Contaminant Levels (MCLs) and treatment technique requirements for over 90 chemical, radiological, and microbiological contaminants.<sup>63</sup> One way to gain insight into children's potential exposure to drinking water contaminants is to look at community water system compliance with these standards. EPA's drinking water regulations require public water systems, including community water systems, to monitor for compliance with Federal health-based standards and treat their water if needed to meet standards. About 15 percent of the population receives drinking water from private water systems that are not required to monitor and report the quality of drinking water.<sup>64</sup>



NOTE: A new standard for disinfection byproducts was implemented beginning in 2002 for larger drinking water systems and in 2004 for smaller systems. Revisions to the standard for surface water treatment took effect in 2002. A revised standard for radionuclides went into effect in 2003. A revised standard for radionuclide in the chemical and radionuclide category) went into effect in 2006. No other revisions to the standards have taken effect during the period of trend data (beginning with 1993). Data have been revised since previous publication in *America's Children*. Values for years prior to 2007 have been recalculated based on updated data in the Safe Drinking Water Information System.

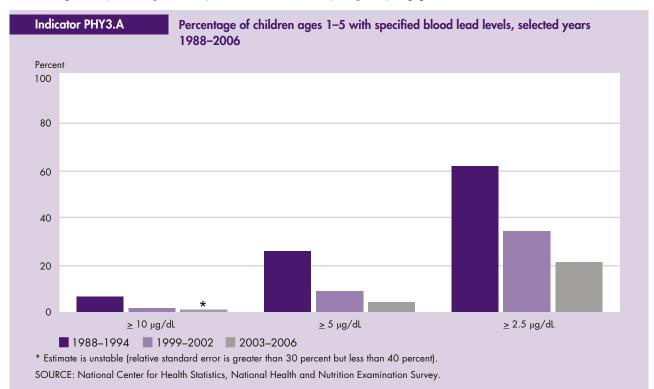
SOURCE: U.S. Environmental Protection Agency, Office of Water, Safe Drinking Water Information System.

- The percentage of children served by community drinking water systems that did not meet all applicable health-based standards declined from 20 percent in 1993 to about 8 percent in 1999. Since 1999, this percentage has fluctuated between 5 and 12 percent and was 8 percent in 2007.
- Coliforms indicate the potential presence of harmful bacteria associated with infectious illnesses. The percentage of children served by community drinking water systems that did not meet the health-based standard for coliforms was about 9 percent in 1993 and about 2 percent in 2007.
- EPA adopted a new standard for disinfection byproducts in 2001. Disinfection byproducts are formed when drinking water disinfectants react with naturally-occurring organic matter in water. In 2007, about 1 percent of all children served by community water systems were served by systems that had violations of the disinfection byproducts standard. Exposure to disinfection byproducts may lead to cancer and have developmental effects.<sup>65</sup>

Bullets contain references to data that can be found in Table PHY2 on page 135. Endnotes begin on page 73.

### Lead in the Blood of Children

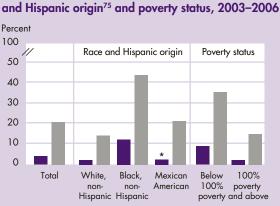
ead is a major environmental health hazard for young children. Childhood exposure to lead contributes to learning problems and behavioral problems.<sup>66–69</sup> A blood lead level of 10 micrograms per deciliter (µg/dL) or greater is considered elevated, but adverse health effects can occur at much lower concentrations.<sup>70,71</sup> A child with a 10 µg/dL blood lead level will experience, on average, a decrease in IQ of 6 points.<sup>72</sup> Lead exposures have declined since the 1970s, due largely to the removal of lead from gasoline and fewer homes with lead-based paint. However, 25 percent of U.S. homes have significant lead-based paint hazards, such as high lead levels in dust and soil, which may contribute to childhood exposure.<sup>73</sup> Children ages 1–5 years are particularly vulnerable because they frequently engage in hand-to-mouth behavior.



- Children's blood lead levels in 2003–2006 were lower than in 1988–1994.
- In 2003–2006 about 21 percent of children ages 1–5 had blood lead levels greater than 2.5 µg/dL, and 4 percent had levels greater than 5 µg/dL. The estimate of children with levels greater than 10 µg/dL is a low percentage, and the available sample is too small to provide a statistically reliable estimate.
- About 12 percent of Black, non-Hispanic children and 2 percent of White, non-Hispanic children had blood lead levels at or above 5 µg/dL in 2003–2006.
- Children living in poverty generally had greater blood lead levels than children in families with incomes at or above the poverty line.
- The median blood lead concentration for children ages 1–5 dropped from about 14 µg/dL in 1976–1980 to about 2 µg/dL in 2003–2006.<sup>74</sup>

Bullets contain references to data that can be found in Tables PHY3.A and PHY3.B on page 136. Endnotes begin on page 73.

#### Indicator PHY3.B Percentage of children ages 1–5 with specified blood lead levels by race



■ ≥ 5 μg/dL ■ ≥ 2.5 μg/dL

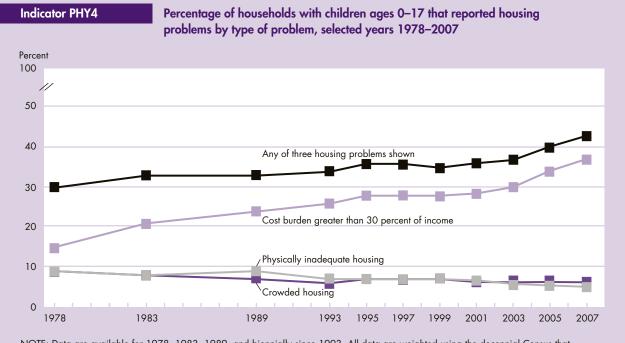
\* Relative standard error is between 30 and 40 percent.

NOTE: Data for percentage of children with blood lead above 10  $\mu g/dL$  are not shown because estimates by race and Hispanic origin and by poverty status are considered unreliable.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey.

#### **Housing Problems**

Inadequate, crowded, or costly housing can pose serious problems to children's physical, psychological, and material well-being.<sup>76</sup> Housing cost burdens, especially at high levels, are a risk factor for negative child outcomes, including homelessness, overcrowding, poor nutrition, frequent moving, and lack of supervision while parents are at work.<sup>77</sup> The percentage of households with children that report that they are living in physically inadequate,<sup>78</sup> crowded, or costly housing provides an estimate of the percentage of children whose well-being may be affected by their family's housing.



NOTE: Data are available for 1978, 1983, 1989, and biennially since 1993. All data are weighted using the decennial Census that preceded the date of their collection.

SOURCE: U.S. Census Bureau and U.S. Department of Housing and Urban Development, American Housing Survey. Tabulated by U.S. Department of Housing and Urban Development.

- In 2007, 43 percent of U.S. households (both owners and renters) with children had one or more of three housing problems: physically inadequate housing, crowded housing, or cost burden resulting from housing that costs more than 30 percent of household income.<sup>79</sup> In comparison, 40 percent of households with children had a housing problem in 2005. This percentage has increased over the long term from 30 percent in 1978.
- Physically inadequate housing, defined as housing with severe or moderate physical problems, continues to decrease. In 2007, 5 percent of households with children had physically inadequate housing, compared with 9 percent in 1978.
- Crowded housing, in which there is more than one person per room, remained stable at 6 percent of households with children in 2007, following reductions in crowded housing observed through 1993.
- Improvements in housing conditions, however, have been accompanied by rising housing costs. Between

1978 and 2007, the incidence of cost burdens among households with children more than doubled, from 15 percent to 37 percent. The proportion with severe cost burdens, paying more than half of their income for housing, rose from 6 percent to 16 percent over the same period.

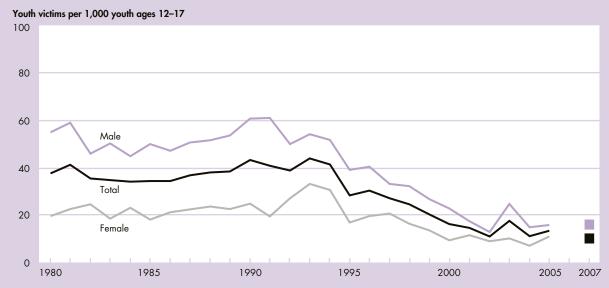
- Households that receive no rental assistance and have severe cost burdens or physical problems are defined as having severe housing problems.<sup>80</sup> The percentage of households with children facing severe housing problems increased from 14 percent in 2005 to 15 percent in 2007.
- Severe housing problems are especially prevalent among very-low-income renters.<sup>81</sup> The incidence of severe problems among very-low-income renters with children changed from 36 percent to 35 percent between 2005 and 2007.

Bullets contain references to data that can be found in Table PHY4 on page 137. Endnotes begin on page 73.

#### Youth Victims of Serious Violent Crimes

iolence impacts the lives of young people who experience, witness, or feel threatened by it. In addition to the direct physical harm suffered by victims of serious violence, such violence can adversely affect young victims' mental health and development and increase the likelihood that they themselves will commit acts of serious violence.<sup>82,83</sup> Youth ages 12–17 were more than twice as likely as adults to be victims of serious violent crimes.<sup>84</sup>





NOTE: Serious violent crimes include aggravated assault, rape, robbery (stealing by force or threat of violence), and homicide. Because of changes, data prior to 1992 are adjusted to make them comparable with data collected under the redesigned methodology. Data from 2006 are not included because, due to changes in methodology, 2006 crime victimization rates are not comparable to other years and cannot be used for yearly trend comparisons. See *Criminal Victimization, 2006*, http://www.ojp.usdoj.gov/bjs/abstract/cv06.htm. Reporting standards were not met for the 2007 estimate for females.

SOURCE: Bureau of Justice Statistics, National Crime Victimization Survey and Federal Bureau of Investigation, Uniform Crime Reporting Program, Supplementary Homicide Reports.

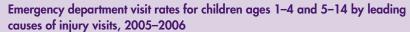
- In 2007, the rate at which youth were victims of serious violent crimes was 10 crimes per 1,000 youth ages 12– 17. A total of 248,900 such crimes occurred in 2007.
- Serious violent crime involving youth victims stayed about the same in 2005 and 2007. However, rates are still significantly lower than their peak in 1993. In 1993, the serious violent crime victimization rate was 44 per 1,000 youth, compared to the 2007 rate of 10 per 1,000 youth.
- In 2007, White, non-Hispanic youth were as likely as Hispanic youth to be victims of a serious violent crime.
- Older youth (ages 15–17) were as likely to be victims of a serious violent crime as younger youth (ages 12–14) were in 2007.

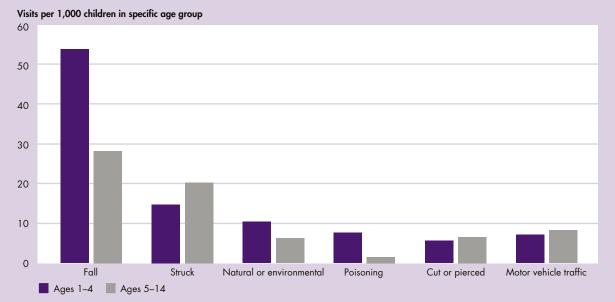
Bullets contain references to data that can be found in Table PHY5 on page 138. Endnotes begin on page 73.

## **Child Injury and Mortality**

Indicator PHY6.A

Ithough injury death rates have declined over the past two decades, unintentional injuries remain the leading cause of death for children ages 1–4 and ages 5–14. In addition, nonfatal injuries continue to be important causes of child morbidity, disability, and reduced quality of life.<sup>85</sup> In 2000, the total lifetime costs (medical expenses and productivity losses) of injuries among children ages 0–14 were estimated to be over \$50 billion.<sup>86</sup> For every fatal injury among children ages 1–14, there are 33 hospitalizations and 1,350 emergency department visits for injuries.<sup>87</sup> The leading causes of injury differ for children and adolescents (see PHY7.A).





NOTE: Visits are the initial visit to the emergency department for the injury. Among causes of injury, "struck" denotes being struck by or against an object or person, "natural or environmental" denotes injuries caused by natural or environmental factors such as insect or animal bites, and "cut or pierced" denotes injuries caused by cutting or piercing from instruments or objects.

SOURCE: National Center for Health Statistics, National Hospital Ambulatory Medical Care Survey.

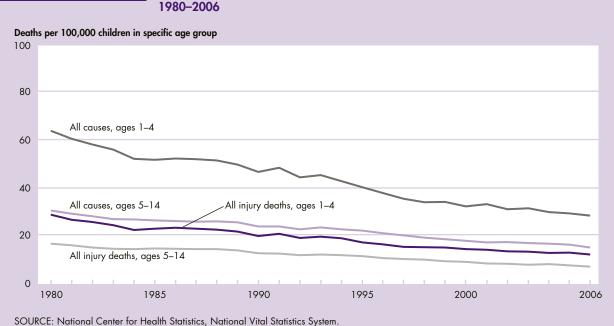
- Among children ages 1–14, falls and being struck by or against an object or person are the two leading causes of initial injury-related emergency department visits. In 2005–2006, there were 54 annual emergency department visits for falls per 1,000 children ages 1–4, whereas the rate was 28 visits per 1,000 children ages 5–14. Falls accounted for 38 percent of initial injury visits for children ages 1–4 and 27 percent of initial injury visits for children ages 5–14.<sup>88</sup>
- Younger children frequently strike furniture after running, tripping, or falling, whereas older children are often struck as a result of play or sports. Emergency department visit rates for being struck by or against an object or person were 15 emergency department visits per 1,000 for children ages 1–4 and 20 emergency department visits per 1,000 for children ages 5–14. Among children ages 1–4, 24 percent of the emergency department visits resulting from being struck by or against an object or person were related to striking

furniture. Among children ages 5–14, 28 percent of the emergency department visits resulting from being struck by or against an object or person were sports related.<sup>88</sup>

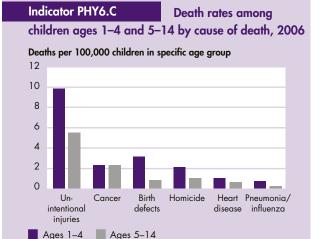
- Emergency department visit rates for injuries caused by natural and environmental factors, poisonings, cutting or piercing from instruments or objects, and motor vehicle traffic crashes ranged between 6–10 visits per 1,000 children for children ages 1–4 and ranged between 2–8 visits per 1,000 children for children ages 5–14.
- Emergency department visit rates for poisoning were higher among children ages 1–4 (8 per 1,000) than among children ages 5–14 (2 per 1,000).
- For children ages 1–4 and 5–14, 2 percent of injury-related emergency department visits resulted in hospitalizations, although the percentage varied by cause.<sup>88</sup>



Death rates among children ages 1–4 and 5–14 by all causes and all injury causes,



- In 2006, the death rate for children ages 1–4 was 28 per 100,000 children and for children ages 5–14 was 15 per 100,000 children. Between 1980 and 2006, the death rate declined by half or more for both age groups.
- Among both younger and older children, Black children had the highest death rates in 2006, at 43 per 100,000 children ages 1–4 and 21 per 100,000 children ages 5–14. Asian or Pacific Islander children had the lowest death rates.
- Among children ages 1–4 and 5–14, unintentional injuries (accidents) were the leading cause of death: 10 deaths per 100,000 children ages 1–4 and 6 deaths per 100,000 children ages 5–14. For children ages 1–4, the next most frequent causes of death were birth defects (3 per 100,000 children) and cancer and homicide (2 per 100,000 each). Among children ages 5–14, the next most frequent causes of death were cancer (2 per 100,000) and homicide and birth defects (1 per 100,000 children each).
- In 2006, the injury death rate was 12 per 100,000 for children ages 1–4 and 7 per 100,000 for children ages 5–14.
- Between 1980 and 2006, motor vehicle traffic and drowning death rates declined by one-half or more among children ages 1–4.
- Among children ages 10–14, homicide and suicide were the third and fourth leading causes of death (1.2 and 1.0 deaths per 100,000, respectively), after unintentional injuries and cancer.<sup>89</sup>

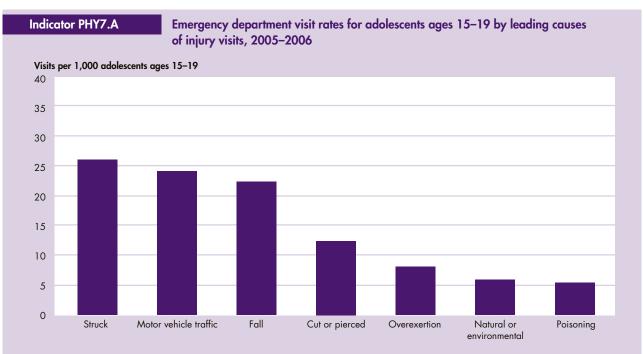


SOURCE: National Center for Health Statistics, National Vital Statistics System.

Bullets contain references to data that can be found in Tables PHY6.A–PHY6.B on pages 139–141. Endnotes begin on page 73.

## **Adolescent Injury and Mortality**

njury accounts for close to 80 percent of adolescent deaths. Compared with younger children, adolescents ages 15–19 have much higher mortality rates overall and from injuries. Adolescents are much more likely to die from injuries sustained from motor vehicle traffic crashes and firearms than are younger children.<sup>90</sup> The leading causes of nonfatal injury is being struck by or against an object or person, whereas for younger children, the leading cause of nonfatal injury is falls (see PHY6.A). In addition, nonfatal injuries for adolescents more often result from violence, sports-related activities, or motor vehicle traffic crashes. For each fatal injury among adolescents, there are 11 hospitalizations and nearly 300 emergency department visits for injuries.<sup>87</sup>



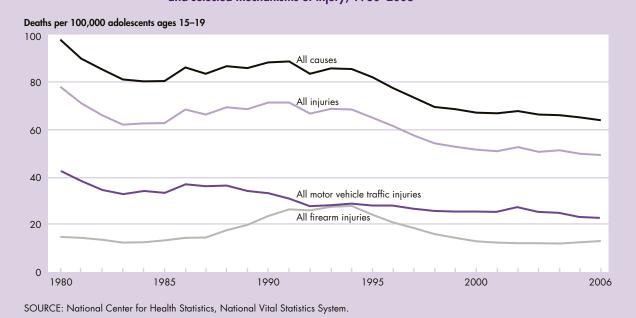
NOTE: Visits are the initial visit to the emergency department for the injury. Among causes of injury, "struck" denotes being struck by or against an object or person, "cut or pierced" denotes injuries caused by cutting or piercing from instruments or objects, "overexertion" denotes excessive physical exercise or strenuous movements in recreational or other activities, and "natural or environmental" denotes injuries caused by natural or environmental factors such as insect or animal bites.

SOURCE: National Center for Health Statistics, National Hospital Ambulatory Medical Care Survey.

- In 2005–2006, the leading causes of initial injury-related emergency department visits among adolescents ages 15–19 were being struck by or against an object or person (26 visits per 1,000), motor vehicle traffic crashes (24 visits per 1,000), and falls (22 visits per 1,000), altogether accounting for about half of all injury-related emergency department visits for this age group.
- Injury emergency department visits for adolescents being struck by or against an object or person were most often the result of a sports-related activity (33 percent) or an assault (26 percent).<sup>88</sup>
- Injuries caused by cutting or piercing from instruments or objects, overexertion from excessive physical exercise or strenuous movements in recreational or other activities, natural or environmental factors, and poisonings were also among the leading causes of injury-related emergency department visits among adolescents ages 15–19, ranging from 5–12 visits per 1,000 adolescents.
- For adolescents ages 15–19, 3 percent of injury-related emergency department visits resulted in hospitalizations.<sup>88</sup>



Death rates among adolescents ages 15–19 by all causes and all injury causes and selected mechanisms of injury, 1980–2006



- In 2006, the death rate for adolescents ages 15–19 was 64 per 100,000. Nearly 80 percent of adolescent deaths occurred from injuries (50 per 100,000). Both the total and injury death rates have declined substantially since 1980, despite a period of increase from 1986 to 1991.
- Motor vehicle traffic and firearm injuries accounted for 71 percent of adolescent injury deaths in 2006. The motor vehicle traffic death rate declined since 1980. The firearm death rate was steady from 1980 to 1987, increased from 1987 to 1994, and declined by more than half since 1994. In 2006, the firearm death rate was 13 per 100,000 adolescents, an increase from 2005.
- Injury deaths can also be reported by intent. Unintentional injury accounts for more than 60 percent of all injury deaths among adolescents. In 2006, this rate was 31 deaths per 100,000 adolescents ages 15–19, unchanged from 2005.
- For intentional injuries, there were 11 homicides per 100,000 adolescents ages 15–19 in 2006, an increase from 2005. In 2006, there were 9 firearm homicides per 100,000, an increase from 2005. There were 7 suicide deaths per 100,000 adolescents ages 15–19 in 2006, unchanged from 2005.

Bullets contain references to data that can be found in Tables PHY7.A and PHY7.B on pages 142–145. Endnotes begin on page 73.

#### **Physical Environment and Safety**

A broader set of indicators than those presented in this section is needed to fully understand and monitor children's physical environment and safety. Additional indicators are needed on:

- Body burden measurements. Children are exposed to many different contaminants in the environment. Measures of contaminants in air, water, land and food provide indirect indications of children's potential exposure to these contaminants. Both environmental and body burden measurements (i.e., levels of contaminants in blood and urine) are needed to characterize children's exposures. Increasing efforts are under way to assess exposures through body burden measurements and to develop children's indicators based on these measurements.
- *Environmental quality.* Although this report provides indicators for contaminants in both outdoor and indoor air, regular sources of national data are needed to assess indoor air contaminants other than environmental tobacco smoke (e.g., pesticides) that are commonly encountered in homes, schools, and

day care settings. Data are needed to more thoroughly characterize children's potential exposure to drinking water contaminants. Indicators are also needed for food and soil contaminants and for cumulative exposures to multiple environmental contaminants that children encounter daily.

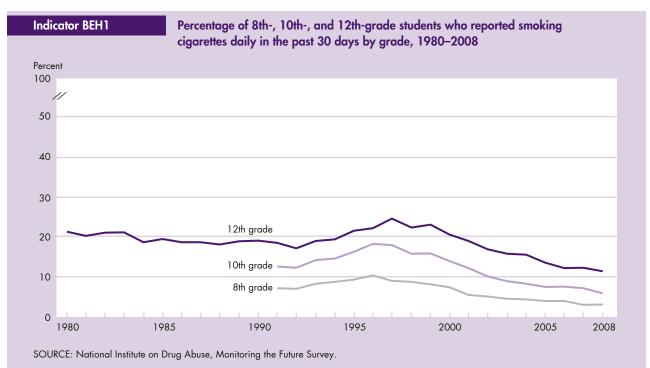
Exposure to violence. Although this report provides indicators for direct crime victimization, child maltreatment, and child and adolescent injury and mortality, regular sources of national data are needed to assess children's exposure to violence, including witnessing violence in the home, school, and community. Research suggests that witnessing violence can have detrimental effects similar to being a direct victim of violence. Additional work is needed to develop a national indicator for exposure to violence.

## **Behavior**

The well-being of young people can be affected by aspects of their behavior and social environments. The indicators in this section focus on illegal and high-risk behaviors. Substance use behaviors are shown for regular cigarette smoking, alcohol use, and illicit drug use. Other indicators in this section present data on behaviors such as sexual activity and perpetration of serious violent crime.

### **Regular Cigarette Smoking**

moking has serious long-term consequences, including the risk of smoking-related diseases and premature death, as well as the increased health care costs associated with treating the illnesses.<sup>91</sup> Many adults who are currently addicted to tobacco began smoking as adolescents, and it is estimated that more than 6 million of today's underage smokers will die of tobacco-related illnesses.<sup>92</sup> These consequences underscore the importance of studying patterns of smoking among adolescents.

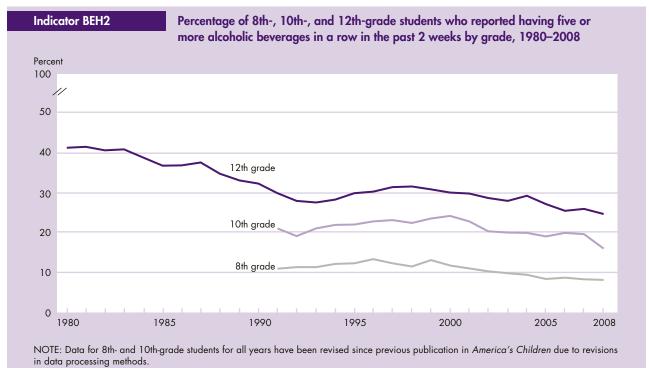


- Among 8th-, 10th-, and 12th-grade students in 2008, the percentage who reported smoking cigarettes daily in the past 30 days was about a third to a half of the percentage for the same groups in the peak years of 1996 and 1997. The most dramatic declines were seen among the youngest students. In 2008, 3 percent of 8th-grade students, 6 percent of 10th-grade students, and 11 percent of 12th-grade students reported smoking cigarettes daily in the past 30 days, compared with the respective peaks of 10, 18, and 25 percent.
- Three percent of both male and female 8th-grade students, 6 percent of both male and female 10th-grade students, and 12 percent of male and 11 percent of female 12th-grade students reported daily smoking.
- In 2008, 14 percent of White 12th-grade students reported smoking cigarettes daily in the past 30 days, compared with 6 percent of Black and 7 percent of Hispanic 12th-grade students.

Bullets contain references to data that can be found in Table BEH1 on page 146. Endnotes begin on page 73.

#### **Alcohol Use**

Consequences.<sup>93</sup> Early onset of heavy drinking, defined here as five or more alcoholic beverages in a row or during a single occasion in the previous 2 weeks, may be especially problematic, potentially increasing the likelihood of these negative outcomes.



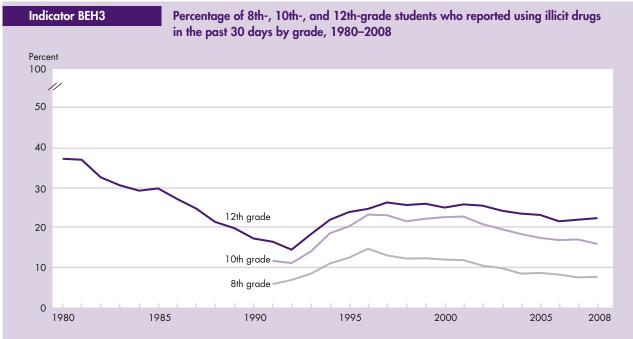
SOURCE: National Institute on Drug Abuse, Monitoring the Future Survey.

- Heavy drinking declined from the most recent peaks of 13 percent in 1996 to 8 percent in 2008 for 8th-grade students, from 24 percent in 2000 to 16 percent in 2008 for 10th-grade students, and from 32 percent in 1998 to 25 percent in 2008 for 12th-grade students.
- In 2008, 8 percent of both male and female 8th-grade students reported heavy drinking; among 10th-grade students, the proportion was 17 percent for males and 15 percent for females. Twenty-eight percent of 12th-grade males reported heavy drinking, compared with 21 percent of 12th-grade females.
- For 10th- and 12th-grade students in 2008, the percentage of White and Hispanic students who were heavy drinkers was approximately double the percentage of Black students. The percentages of 10th-grade White, Hispanic, and Black students who were heavy drinkers were 20, 20, and 10 percent, respectively. The percentages of White, Hispanic, and Black 12th-graders who were heavy drinkers were 30, 22, and 11 percent, respectively. Among 8th-grade students, the rate of heavy drinking was 8 percent for White, 12 percent for Hispanic, and 6 percent for Black students.

Bullets contain references to data that can be found in Table BEH2 on page 147. Endnotes begin on page 73.

### Illicit Drug Use

Trug use by adolescents can have immediate as well as long-term health and social consequences. Cocaine use is linked with health problems that range from eating disorders to disability to death from heart attacks and strokes.<sup>94</sup> Marijuana use poses both health and cognitive risks, particularly for damage to pulmonary functions as a result of chronic use.<sup>95,96</sup> Hallucinogens can affect brain chemistry and result in problems with memory and learning new information.<sup>97</sup> As is the case with alcohol use and smoking, illicit drug use is a risk-taking behavior that has potentially serious negative consequences.



NOTE: Use of "any illicit drug" includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin, or any use of other narcotics, amphetamines, barbiturates, or tranquilizers not under a doctor's orders. For 8th- and 10th-graders, the use of other narcotics and barbiturates has been excluded because these younger respondents appear to overreport use (perhaps because they include the use of nonprescription drugs in their responses).

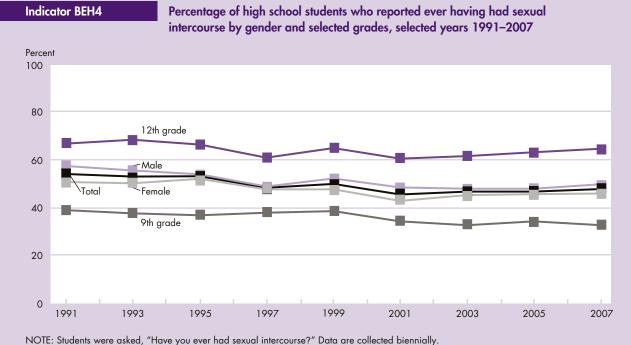
SOURCE: National Institute on Drug Abuse, Monitoring the Future Survey.

- Illicit drug use in the past 30 days was unchanged from 2007 to 2008. Eight percent of 8th-grade students, 16 percent of 10th-grade students, and 22 percent of 12th-grade students reported use in the past 30 days in 2008.
- Eight percent of male and 7 percent of female 8th-grade students reported using illicit drugs in the past 30 days. Among 10th-grade students, the percentages were 17 percent for males and 14 percent for females. Among 12th-grade students, the percentages were 25 percent for males and 19 percent for females.
- Reports of illicit drug use in the past 30 days have declined from the most recent peaks of 15 percent for 8th-grade students and 23 percent for 10th-grade students in 1996, and 26 percent for 12th-grade students in 1997.

Bullets contain references to data that can be found in Table BEH3 on page 148. Endnotes begin on page 73.

#### **Sexual Activity**

**E** arly sexual activity is associated with emotional<sup>98</sup> and physical health risks. Youth who engage in sexual activity are at risk of contracting sexually transmitted infections (STIs) and becoming pregnant. STIs, including HIV, can infect a person for a lifetime and have consequences including disability and early death. Meanwhile, delaying sexual initiation is associated with a decrease in the number of lifetime sexual partners,<sup>99</sup> and decreasing the number of lifetime partners is associated with a decrease in the rate of STIs.<sup>100,101</sup> Additionally, teen pregnancy is associated with a number of negative risk factors, not only for the mother but also for her child (see FAM6).



NOTE: Students were asked, "Have you ever had sexual intercourse?" Data are collected biennially. SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System.

- In 2007, 48 percent of high school students reported ever having had sexual intercourse.
- The proportion of students who reported ever having had sexual intercourse declined significantly from 1991 (54 percent) to 2001 (46 percent) and has remained relatively stable from 2001 to 2007.
- The percentage of students who reported ever having had sexual intercourse differs by grade. In 2007, 33 percent of 9th-grade students reported ever having had sexual intercourse, compared with 65 percent of 12th-grade students.
- Trends differed by race and ethnicity. The percentage of White, non-Hispanic students who reported ever having had sexual intercourse declined from 50 percent in 1991 to 43 percent in 2001, and remained between 42 percent and 44 percent from 2003 to 2007. This rate also declined among Black, non-Hispanic students, from 82 percent in 1991 to 67 percent in 2003, and remained between 67 percent and 68 percent from 2003 to 2007. There was no statistically significant change among Hispanic students between 1991 and 2007 (when the proportion was 52 percent).
- Overall, rates of sexual intercourse did not differ by gender, though they did differ by gender within some racial and ethnic groups. In 2007, 73 percent of Black, non-Hispanic male students reported ever having had sexual intercourse, compared with 61 percent of Black, non-Hispanic female students, and 58 percent of Hispanic male students reported ever having had sexual intercourse, compared with 46 percent of Hispanic female students.<sup>102</sup>
- In 2007, 16 percent of students who had sexual intercourse in the past 3 months reported that they or their partner had used birth control pills before their last sexual intercourse, and 62 percent reported condom use. Of note, condom use increased since 1991 (from 46 percent) among high school students, while there was a statistically significant decrease in the use of birth control pills (from 21 percent).

Bullets contain references to data that can be found in Tables BEH4.A and BEH4.B on page 149. Endnotes begin on page 73.

#### Youth Perpetrators of Serious Violent Crimes

he level of youth violence in society can be viewed as an indicator of youths' ability to control their behavior and the adequacy of socializing agents such as families, peers, schools, and religious institutions to supervise or channel youth behavior to acceptable norms. One measure of the serious violent crime committed by juveniles is the extent to which at least one juvenile offender is reported by the victim to have been involved in a crime.





NOTE: The offending rate is the ratio of the number of crimes (aggravated assault, rape, and robbery, i.e., stealing by force or threat of violence) reported to the National Crime Victimization Survey that involved at least one offender perceived by the victim to be 12–17 years of age, plus the number of homicides reported to the police that involved at least one juvenile offender, to the number of juveniles in the population. Because of changes made in the victimization survey, data prior to 1992 are adjusted to make them comparable with data collected under the redesigned methodology. Data from 2006 are not included because, due to changes in methodology, 2006 crime perpetration rates are not comparable to other years and cannot be used for yearly trend comparisons. See *Criminal Victimization, 2006*, http://www.ojp.usdoj.gov/bjs/abstract/cv06.htm.

SOURCE: Bureau of Justice Statistics, National Crime Victimization Survey and Federal Bureau of Investigation, Uniform Crime Reporting Program, Supplementary Homicide Reports.

- In 2007, the serious violent crime offending rate was 11 crimes per 1,000 juveniles ages 12–17, with a total of 277,000 such crimes involving juveniles. This is lower than the rate in 2005, and it is substantially lower than the 1993 peak rate of 52 crimes per 1,000 juveniles ages 12–17.
- Since 1980, serious violent crime involving youth offenders has ranged from 19 percent of all serious violent crimes in 1982 to 26 percent in 1993, the peak year for youth violence. In 2007, 17 percent of all such victimizations reportedly involved a juvenile offender.
- In over half of all serious violent juvenile crimes reported by victims in 2007, more than one offender was involved in the incident. Because insufficient information exists to determine the ages of each individual offender when a crime is committed by more than one perpetrator, the number of additional juvenile offenders cannot be determined. Therefore, this rate of serious violent crime offending does not represent the number of juvenile offenders in the population, but rather the rate of crimes involving a juvenile.

Bullets contain references to data that can be found in Table BEH5 on page 150.

#### **Indicators Needed**

#### **Behavior**

A broader set of indicators than those presented in this section is needed to adequately monitor the behaviors of youth. Additional behavioral measures are needed on:

- Activities promoting health and development. The participation of youth in a broad range of activities (e.g., volunteering, part-time employment, after-school activities) has been linked to positive developmental outcomes. However, additional research is needed to ascertain how and under what circumstances such activities relate to success in later life. The Forum has presented "Youth Employment While in School" and "Participation in Volunteer Activities" as special features in past America's Children reports. However, we currently lack regular indicators on youth involvement in various organized activities as well as data to monitor specific health-promoting behaviors such as exercise.
- *Youth in the justice system.* The youth perpetrators of serious violent crime indicator does not provide critical information on the involvement of youth in the juvenile and criminal justice systems, including the characteristics of youthful offenders and the number and characteristics of youth arrestees and detainees, those prosecuted in juvenile and adult courts, and those incarcerated in the Nation's jails, prisons, and juvenile facilities. Additional work is needed to produce a more comprehensive and characteristics of youth within the criminal justice system.