PART I

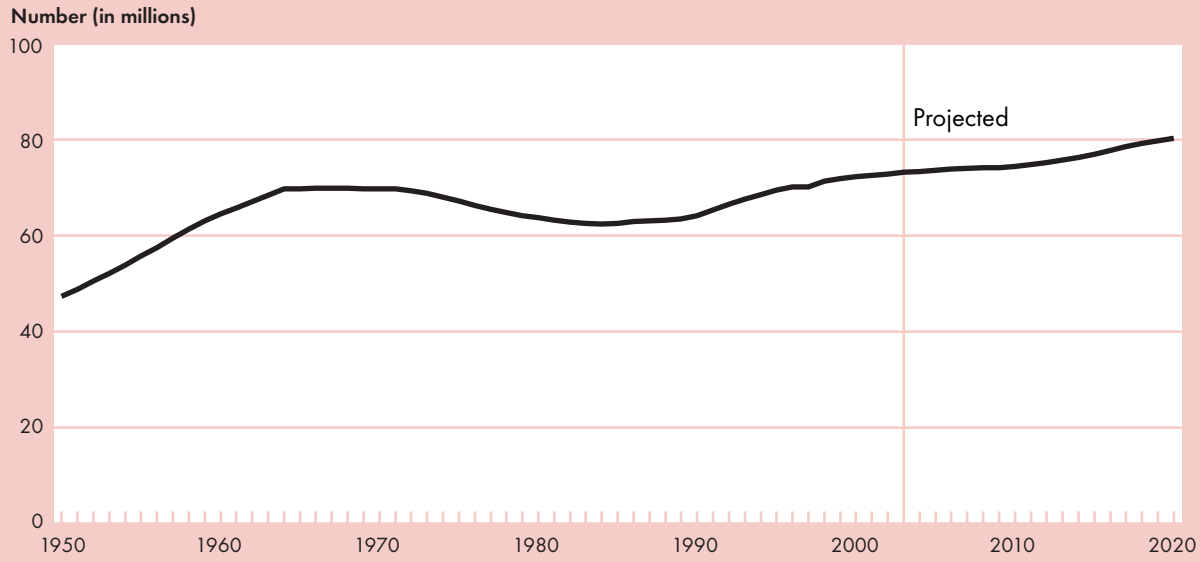
Population and Family Characteristics

Part I: ***Population and Family Characteristics*** presents data that illustrate the changes in the population and family contexts in which America's children are being raised. Nine key measures present data on trends in the size and composition of the child population, the composition of their families, and the environment in which they live. The background measures provide an important context for understanding the key indicators of well-being presented in Part II.

Child Population

The number of children determines the demand for schools, health care, and other services and facilities that serve children and their families.

Figure POP1 **Number of children ages 0–17 in the United States, 1950–2003 and projected 2004–2020**



NOTE: Population projections are based on the Census 2000 counts.

SOURCE: U.S. Census Bureau, Population Estimates and Projections.

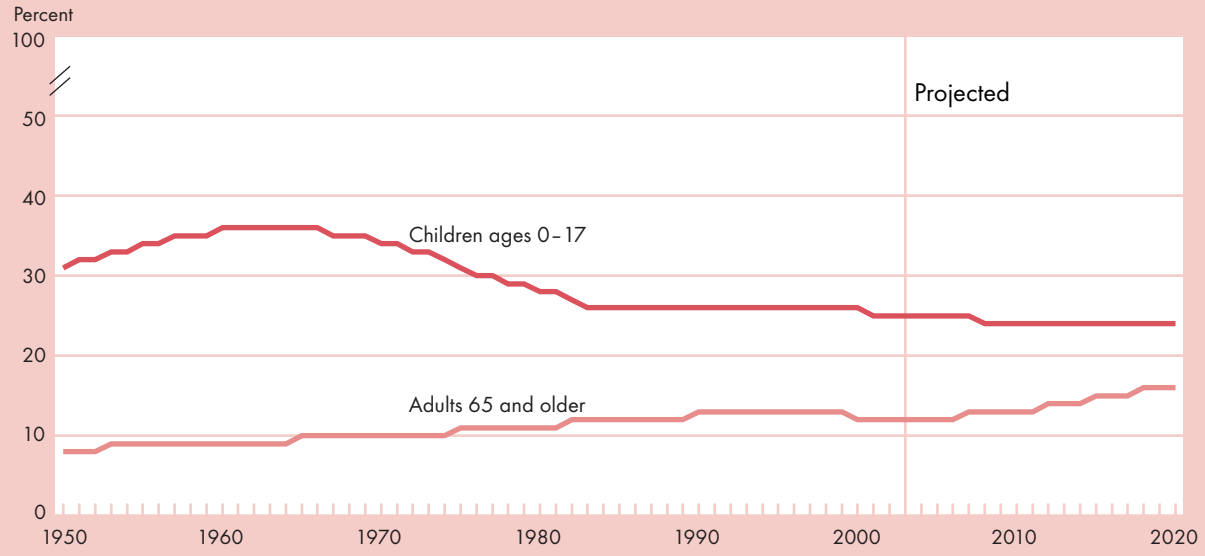
- In 2003, there were 73 million children in the United States, 700,000 more than in 2000. This number is projected to increase to 80 million in 2020.
- The number of children ages 0–17 has grown during the last half-century, increasing from 47 million in 1950 to 73 million in 2003.
- During the "baby boom," the number of children increased from 47 million in 1950 to 70 million in 1964.
- During the 1970s and early 1980s, the number of children declined from 70 million in 1970 to 63 million in 1984.
- Beginning in the mid-1980s, the rate of growth in the number of children increased, although not as rapidly as during the baby boom. The number of children increased from 63 million in 1985 to 73 million in 2003.
- In 2003, there were approximately equal numbers of children—between 23 and 25 million—in each of these age groups: 0–5, 6–11, and 12–17 years of age.

Bullets contain references to data that can be found in Table POP1 on page 89.

Children as a Proportion of the Population

Though children represent a smaller percentage of the population today than in 1960, they are nevertheless a stable and substantial portion of the population.

Figure POP2 **Children ages 0–17 and adults ages 65 and over as a percentage of the U.S. population, 1950–2003 and projected 2004–2020**



NOTE: Population projections are based on the Census 2000 counts.

SOURCE: U.S. Census Bureau, Population Estimates and Projections.

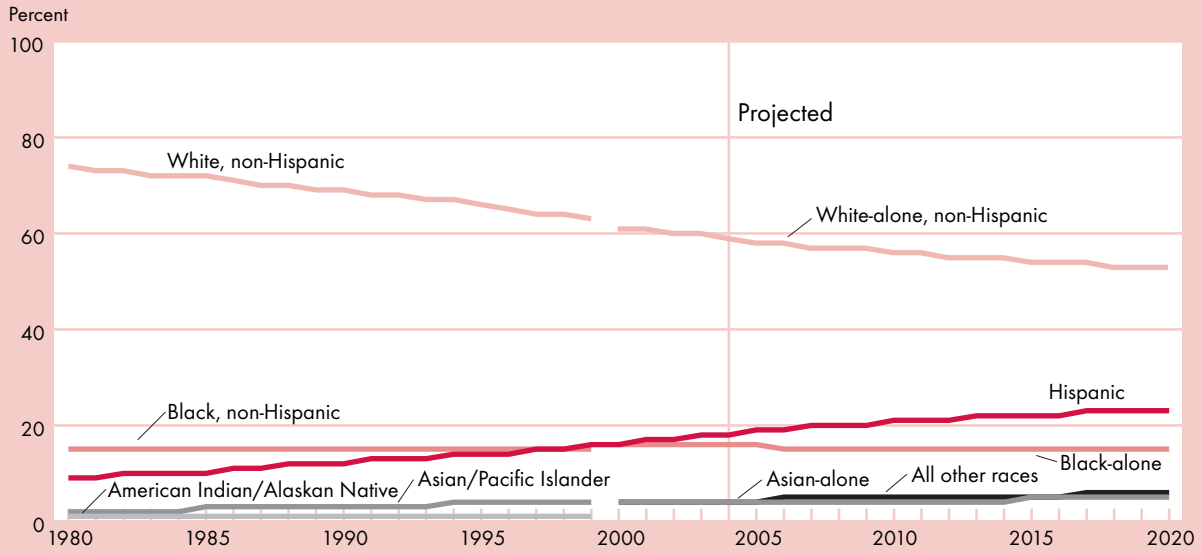
- Since the mid-1960s, children have been decreasing as a proportion of the total U.S. population. In 2003, children made up 25 percent of the population, down from a peak of 36 percent at the end of the "baby boom" (1964).
- Children are projected to remain a fairly stable percentage of the total population. They are projected to compose 24 percent of the population in 2020.
- In contrast, senior citizens (adults ages 65 and older) have increased as a percentage of the total population since 1950, from 8 to 12 percent in 2003. By 2020, they are projected to make up 16 percent of the population.
- Together, children and senior citizens make up the "dependent population" (people who, because of their age, are less likely to be employed than others). In 1950, children made up 79 percent of the dependent population; by 2003, they made up 67 percent. This percentage is expected to decrease to 60 percent in 2020.

Bullets contain references to data that can be found in Table POP2 on page 90.

Racial and Ethnic Composition

Racial and ethnic diversity has grown dramatically in the United States in the last three decades. This increased diversity appeared first among children and later in the older population. This diversity is projected to increase even more in the decades to come.

Figure POP3 **Percentage of U.S. children ages 0–17 by race and Hispanic origin, 1980–2003 and projected 2004–2020**



NOTE: Beginning in 2000, respondents were asked to choose one or more races; therefore data are not strictly comparable. With the exception of the Two-or-more-races group (part of the All other races group), all race groups shown in this figure from 2000 onward refer to people who indicated only one racial identity within the racial category presented. The use of the "race-alone" population in this figure does not imply that it is the preferred method of presenting or analyzing data. Persons of Hispanic origin may be of any race.

SOURCE: U.S. Census Bureau, Population Estimates and Projections.

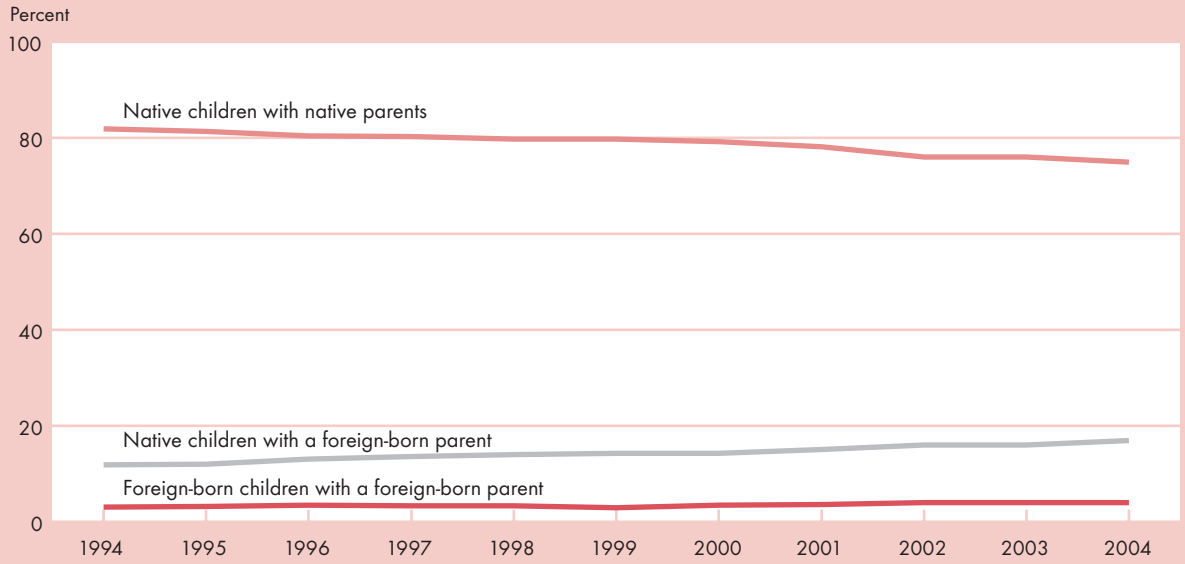
- In 2003, 60 percent of U.S. children were White-alone, non-Hispanic, 19 percent were Hispanic, 16 percent were Black-alone, 4 percent were Asian-alone, and 4 percent were all other races.[1]
- The percentage of children who are Hispanic has increased faster than that of any other racial or ethnic group, growing from 9 percent of the child population in 1980 to 19 percent in 2003. By 2020, it is projected that nearly 1 in 5 children in the United States will be of Hispanic origin.

Bullets contain references to data that can be found in Table POP3 on page 91. 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.[2] This increase in the past generation has largely been from Latin America and Asia, and represents an increase in the diversity of language and cultural backgrounds of children growing up in the United States.[3] 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.[4]

Figure POP4 **Percentage of children ages 0–17 by nativity of child and parents, 1994–2004**



NOTE: Includes all children ages 0–17 except children in group quarters. 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 or in U.S. outlying areas, and people born abroad with at least one American parent.

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

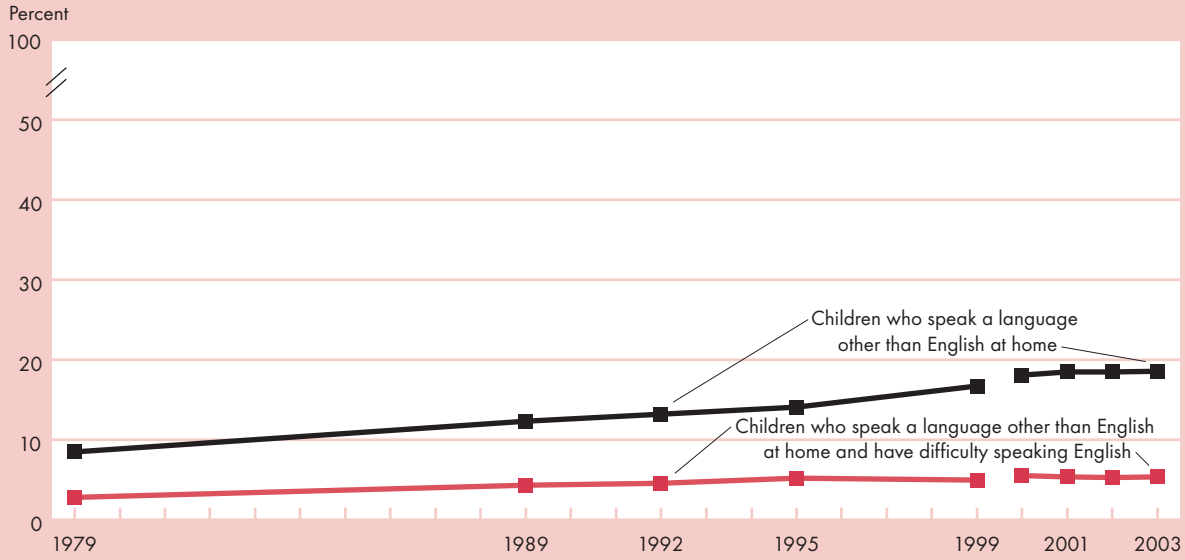
- In 2004, 17 percent of children were native children with at least one foreign-born parent, and 4 percent were foreign-born children with at least one foreign-born parent. Overall, the percentage of all children living in the U.S. with at least one parent who was foreign born rose from 15 percent in 1994 to 20 percent in 2004.
- In 2004, 42 percent of foreign-born children with at least one foreign-born parent had a parent with less than a high school degree, compared with 34 percent of native children with at least one foreign-born parent and 10 percent of native children with native parents.
- In 2004, foreign-born children with foreign-born parents were more likely than native children with foreign-born parents to live below the poverty level, 30 and 21 percent, respectively.
- Regardless of their own nativity status, children with at least one foreign-born parent more often lived in a household with two parents present. In 2004, 81 percent of children with at least one foreign-born parent lived with two parents, compared with 68 percent of children with native parents.

Bullets contain references to data that can be found in Table POP4 on pages 92–94. Endnotes begin on page 73.

Difficulty Speaking English

Children who speak languages other than English at home and who also have difficulty speaking English[5] 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.

Figure POP5 **Percentage of children ages 5–17 who speak a language other than English at home and who have difficulty speaking English, selected years 1979–2003**



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 comes from the CPS, while beginning in 2000 the data comes from the American Community Survey (ACS). The questions were the same on the CPS and ACS questionnaires.

SOURCE: U.S. Census Bureau, October (1992, 1995, and 1999) and November (1979 and 1989) Current Population Survey, and 2000–2003 American Community Survey.

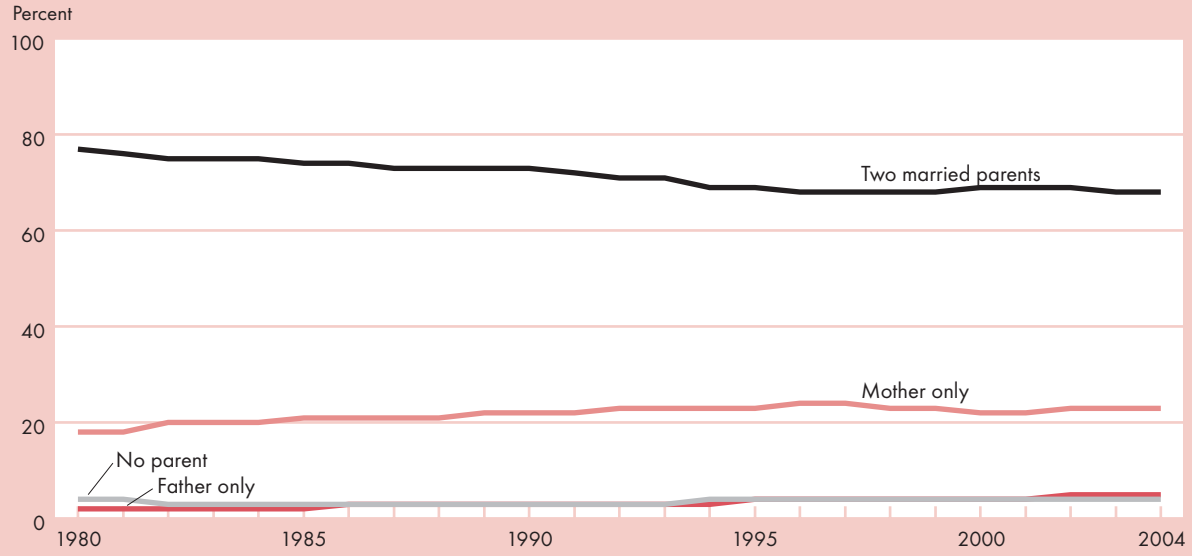
- In 2003, 19 percent of school-age children spoke a language other than English at home and 5 percent of school-age children had difficulty speaking English.
- In 2003, the percentage of school-age children who spoke a language other than English at home varied by region of the country, from a low of 10 percent in the Midwest to a high of 31 percent in the West.
- In 2003, 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 2003, 64 percent of school-age Asian-alone children and 68 percent of school-age Hispanic children spoke a language other than English at home, compared with 5 percent of both White-alone, non-Hispanic children and Black-alone, non-Hispanic children of school age.[1]
- In 2003, 18 percent of school-age Asian-alone children and 21 percent of school-age Hispanic children had difficulty with English, compared with about 1 percent of both White-alone, non-Hispanic children and Black-alone, non-Hispanic children of school age.[1]
- About 5 percent of school-age children spoke a language other than English at home and lived in linguistically isolated households in 2003.[6]

Bullets contain references to data that can be found in Table POP5 on pages 95–98. Endnotes begin on page 73.

Family Structure and Children's Living Arrangements

The number of parents a child lives with is associated with the economic, parental, and community resources available to children and their well-being.

Figure POP6.A **Percentage of children ages 0–17 by presence of married parents in the household, 1980–2004**



NOTE: The category "two married parents" includes children who live with a biological, step, or adoptive parent who is married with his or her spouse present. If a second parent is present and not married to the first parent, then the child is identified as living with a single parent. The majority of children who live with neither parent are living with grandparents or other relatives. Some live with foster parents or other nonrelatives.

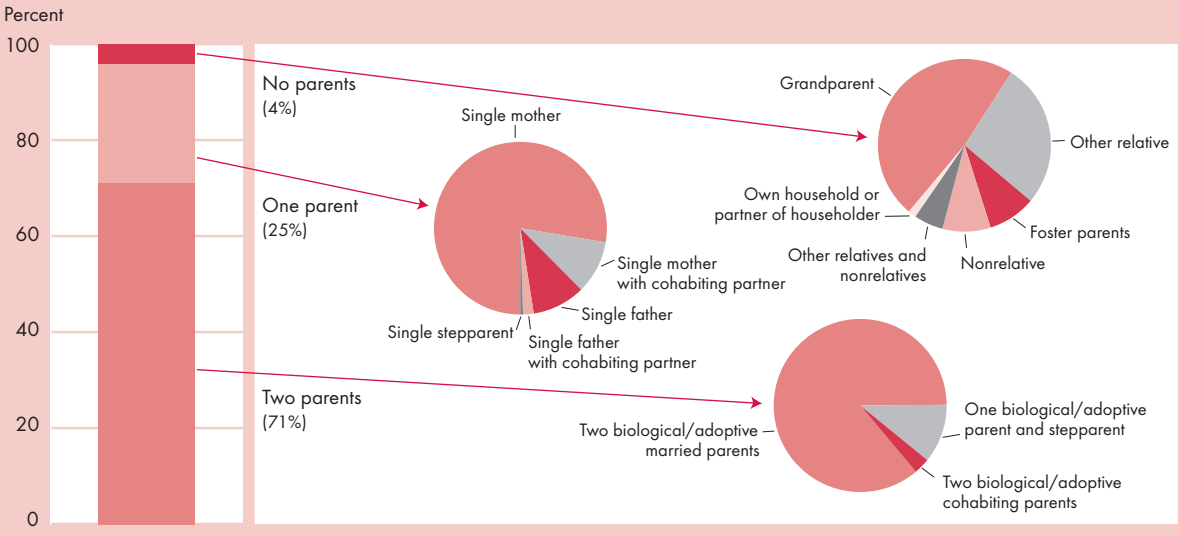
SOURCE: U.S. Census Bureau. Current Population Survey, Annual Social and Economic Supplements.

- In 2004, 68 percent of children ages 0–17 lived with two married parents, down from 77 percent in 1980. After decreasing from 1980 to 1994, the percentage has remained stable at about 68–69 percent from 1994 to 2004.
- In 2004, nearly one quarter (23 percent) of children lived with only their mothers, 5 percent lived with only their fathers, and 4 percent lived with neither of their parents.[7,8]
- In 2004, 77 percent of White-alone, non-Hispanic children lived with two married parents, compared with 65 percent of Hispanic children and 35 percent of Black-alone children.[1]
- The proportion of Hispanic children living with two married parents decreased from 75 percent in 1980 to 65 percent in 2004.
- The proportion of all children living with a single father increased from 2 percent in 1980 to 5 percent in 2004.

For a measure of detailed living arrangements of children, see POP6.B.

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.

Figure POP6.B **Percentage of children ages 0–17 living in various family arrangements, 2001**



SOURCE: U.S. Census Bureau, Survey of Income and Program Participation.

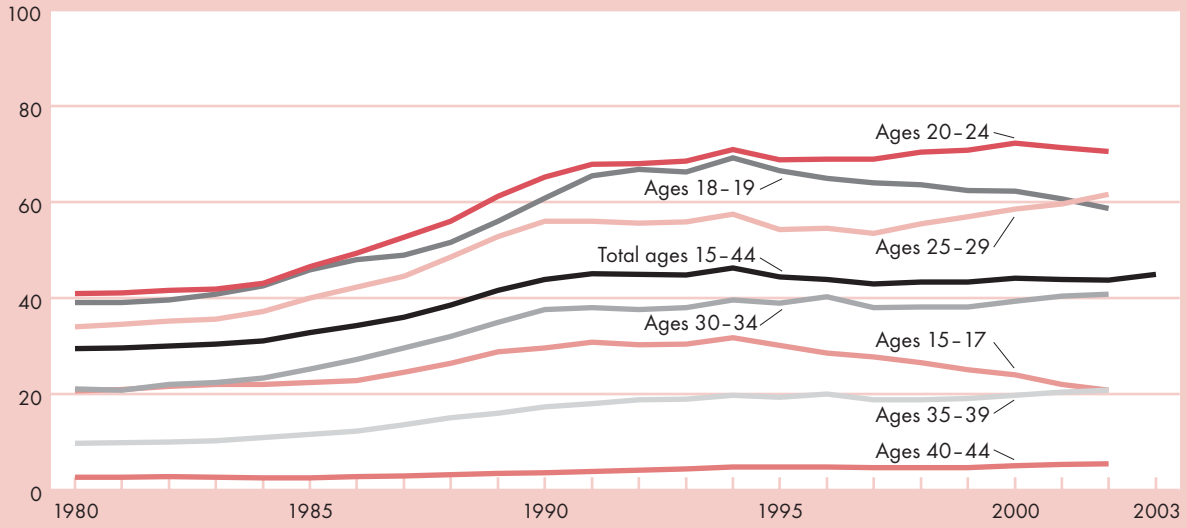
- POP6.B provides more detailed data about children's living arrangements and uses a different data source than POP6.A, so the percentages are different. Data from the Survey of Income and Program Participation allow identification of two coresident parents for each child, as well as the type of relationship between parent and child—biological, step, or adoptive. In 2001, there were about 73 million children ages 0–17. Seventy-one percent of them lived with two parents, 25 percent lived with one parent, and about 4 percent lived in households without parents.
- Among children living with two parents, 90 percent lived with both biological or adoptive parents and 10 percent lived with a biological or adoptive parent and a stepparent. About 83 percent of children living with at least one stepparent lived with their biological mother and stepfather.
- 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. Eighteen percent of children living with single biological or adoptive fathers and 11 percent of children living with single biological or adoptive mothers also lived with their parent's cohabiting partner. Overall, 4.3 million children (6 percent) lived with a parent or parents who were cohabiting.
- Among the 2.9 million children (4 percent) not living with either parent in 2001, about half (48 percent or 1.4 million) lived with grandparents, 33 percent lived with other relatives, and 17 percent lived with nonrelatives. Of children in nonrelatives' homes, about half (51 percent or 260,000) lived with foster parents.
- Older children were less likely to live with two parents—65 percent of children ages 15–17, compared with 70 percent of children ages 6–14 and 75 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 to live with cohabiting parents.

Bullets contain references to data that can be found in Tables POP6.A and POP6.B on pages 99–103. 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.[9] Children of unmarried mothers are at higher risk of having adverse birth outcomes, such as low birthweight and infant mortality, and are more likely to live in poverty than children of married mothers.[10–14]

Figure POP7.A Birth rates for unmarried women by age of mother, 1980–2003



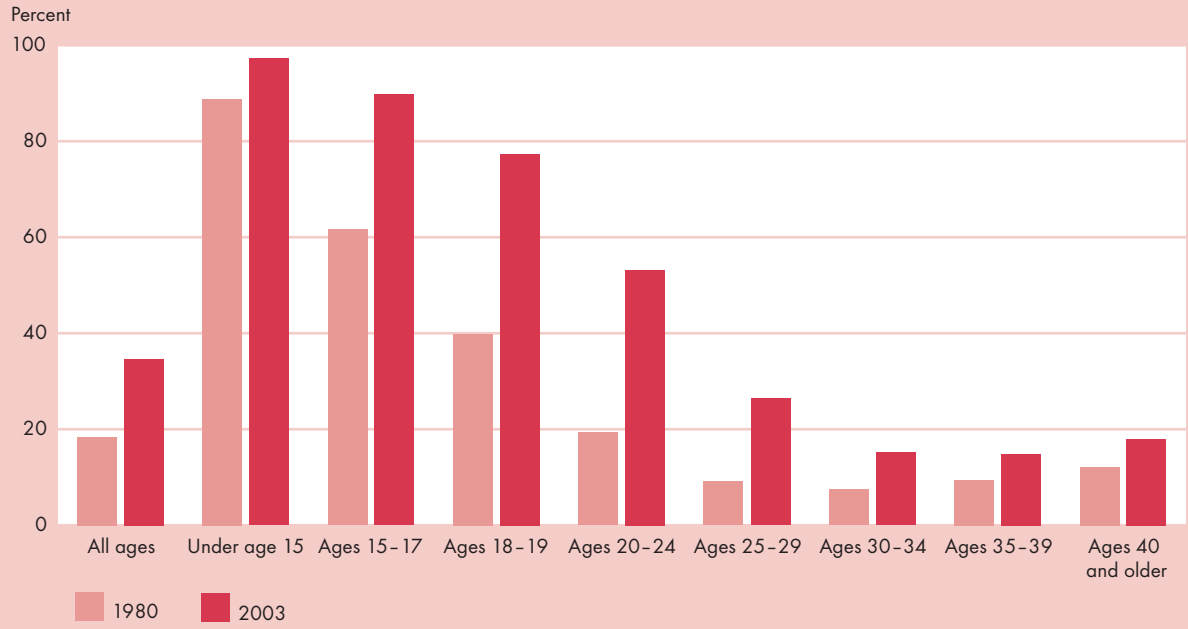
NOTE: 2003 data for total ages 15–44 is preliminary. 2003 data for specific age groups are not available.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

- There were 45 births for every 1,000 unmarried women ages 15–44 in 2003.[15]
- Between 1980 and 1994, the birth rate for unmarried women ages 15–44 increased from 29 to 46 per 1,000. Between 1995 and 2003, the rate has fluctuated little, ranging from 43 to 45 per 1,000.[13,15,16]
- Between 1994 and 2002, birth rates for unmarried women by age declined for women under age 20, and increased somewhat for women in age groups 20–24 through 40–44 years.[13,15,16] Specifically, the rates for younger teens ages 15–17 fell more than one-third from 32 to 21 per 1,000. Rates in 2002 remained highest for women ages 20–24 at 71 per 1,000, although the rate for these women has declined slightly since 2000.[11,16]
- There was a long-term rise between 1960 and 1994 in the nonmarital birth rate, which is linked to a number of factors.[13] The proportion of women of childbearing age who were unmarried increased (from 29 percent in 1960 to 46 percent in 1994). Concurrently, there was an increase in nonmarital cohabitation.[17] The likelihood that an unmarried woman would marry before the child was born declined steeply from the early 1960s, to the early 1980s, and continued to fall, although more modestly, through the early 1990s.[18] At the same time, childbearing within marriage declined: births to married women declined from 4 million in 1960 to 2.7 million in 1994, and the birth rate for married women fell from 157 per 1,000 in 1960 to 83 per 1,000 in 1994.[11–13,16]
- The birth rate for unmarried women has changed comparatively little since 1994. The proportion of women in the childbearing ages who were unmarried continued to rise, reaching 51 percent in 2003. Nonmarital cohabitation, however, remained relatively unchanged; about 27 percent of unmarried women ages 25–29 were in cohabiting relationships in 2002.[19] Measures of childbearing by marital status stabilized in the mid-1990s, and then increased slowly, as the nonmarital birth rate steadied during this period.[11,13]

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.[10] 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 percentage of births to unmarried women is a function of several factors, including birth rates for married and unmarried women and the number of unmarried women.[20] Significant changes occurred in all these measures since 1980.[12,13,21]

Figure POP7.B **Percentage of all births that are to unmarried women by age of mother, 1980 and 2003**



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

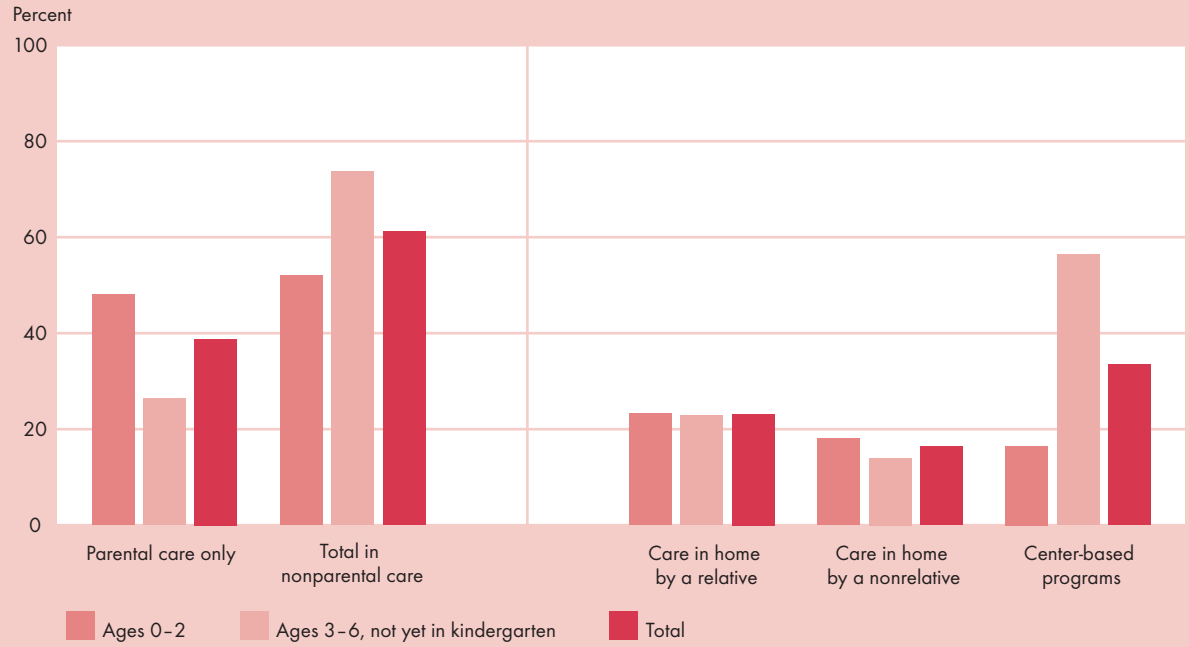
- In 2003, 35 percent of all births were to unmarried women.
- The percentage of all births to unmarried women rose sharply from 18 percent in 1980 to 33 percent in 1994.[13] From 1994 to 2003, it increased slowly to 35 percent.[11,13,15]
- Between 1980 and 2003, the proportion of births to unmarried women rose sharply for women in all age groups. Among teenagers, the proportion was high throughout the period and continued to rise, from 62 to 90 percent for ages 15–17 and from 40 to 77 percent for ages 18–19. The proportion more than doubled for births to women in their twenties, rising from 19 to 53 percent for ages 20–24 and from 9 to 26 percent for ages 25–29. The proportion of births to unmarried women in their thirties increased from 8 to 15 percent.[11,13]
- One-third of all births, including 4 in 10 first births, were to unmarried women in 2002. Nearly two-thirds of women under age 25 having their first child were not married.[22]
- The increases in the proportion of births to unmarried women, especially during the 1980s, were linked to sharp increases in the birth rates for unmarried women in all age groups during this period, concurrent with declines in birth rates for married women. In addition, the number of unmarried women increased by about one-fourth, as more and more women from the baby boom generation postponed marriage.[13,21]
- During the late 1990s, the pace of increase in the proportion slowed. The comparative stability is linked to a renewed rise in birth rates for married women.[11,13]

Bullets contain references to data that can be found in Tables POP7.A and POP7.B on page 104. Endnotes begin on page 73.

Child Care

Some children spend time with a child care provider other than their parents. This measure presents two aspects of early childhood child care usage: overall use of different provider types regardless of parents' work status (POP8.A) and a historical trend of the primary child care provider used by employed mothers for their young children (POP8.B).[23]

Figure POP8.A Percentage of children ages 0–6, not yet in kindergarten by type of care arrangement, 2001



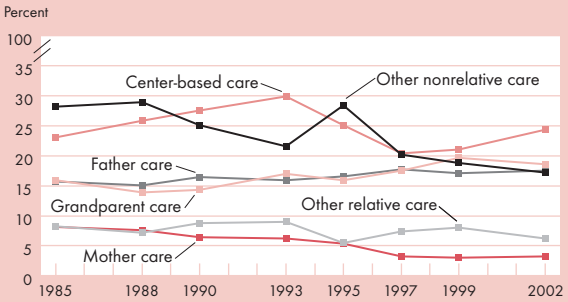
NOTE: Some children participate in more than one type of arrangement, so the sum of all arrangement types exceeds the total percentage in nonparental care. Center-based programs include day care centers, prekindergartens, nursery schools, Head Start programs, and other early childhood education programs. Relative and nonrelative care can take 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 (NHES).

Figure POP8.A

- In 2001, 61 percent of children ages 0–6 (not yet in kindergarten) received some form of child care on a regular basis from persons other than their parents. This translates to approximately 12 million children and is about the same proportion of children in child care as in 1995.
- Patterns of child care vary by the poverty status of the family of the child. In 2001, children in families with incomes at least twice the poverty level were more likely than their peers to be in nonparental care (67 percent in nonparental care versus 55 percent of those in families with income below the poverty level and 54 percent of children in families with income between the poverty level and 200 percent of the poverty level). In addition, children in families with incomes at least twice the poverty level were more likely than their peers to be in home care by a nonrelative or in center-based programs, including nursery schools and other early childhood education programs.

Figure POP8.B Primary child care arrangements for children ages 0–4 with employed mothers, selected years 1985–2002[24]

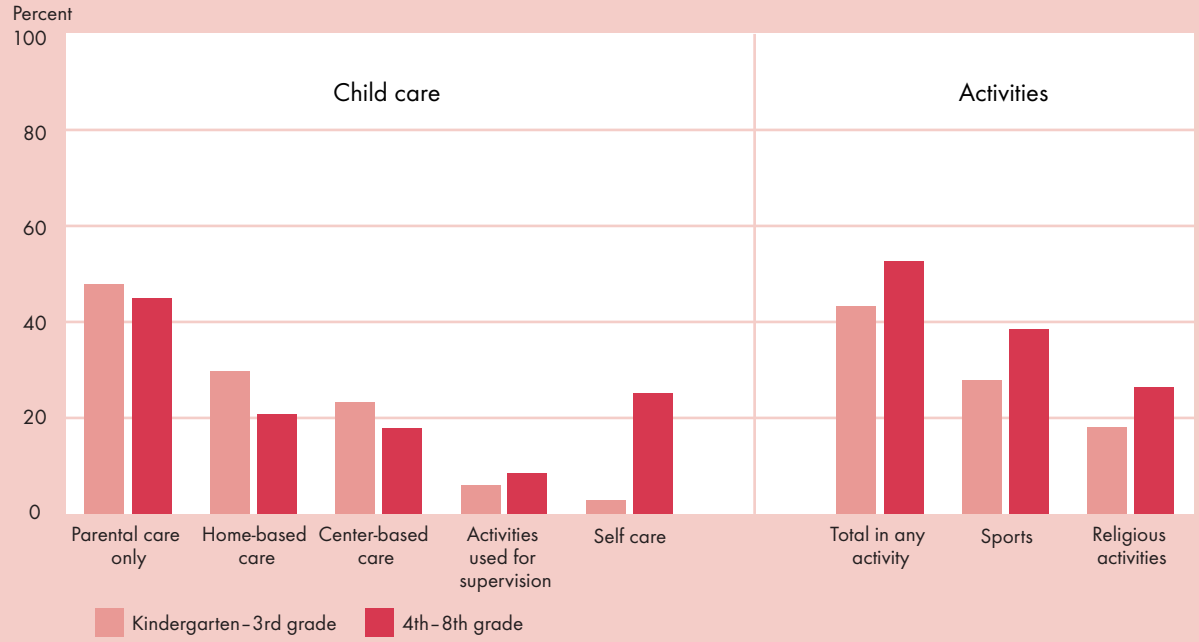


NOTE: The primary arrangement is the arrangement used for the most number of hours per week while the mother worked.

SOURCE: U.S. Census Bureau, Survey of Income and Program Participation.

School-age children may spend their weekday, nonschool time in child care arrangements but also may engage in a variety of enrichment activities such as sports, arts, clubs, academic activities, community service, and religious activities. Some children also spend time caring for themselves without adult supervision. This measure presents the most recent data available on how grade-school-age children spend their out-of-school time.

Figure POP8.C **Percentage of children in kindergarten through 8th grade by weekday care and activities, 2001**



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. For a full listing of activities, see Table POP8.C. Estimates differ from those reported previously because an additional category, "activities used for supervision," has been included.

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

Figure POP8.B

- In 2002, 46 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. This is not statistically different from the percentages in 1997 and 1999. Twenty-four percent spent the most amount of time in a center-based arrangement (day care, nursery school, preschool, or Head Start). Seventeen 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, 16 percent were in center-based care as their primary arrangement, while 10 percent were with other relatives. Comparatively, a larger percentage of children in families at or above the poverty line were in center-based care (25 percent), and a smaller percentage were cared for by other relatives (6 percent).

Figure POP8.C

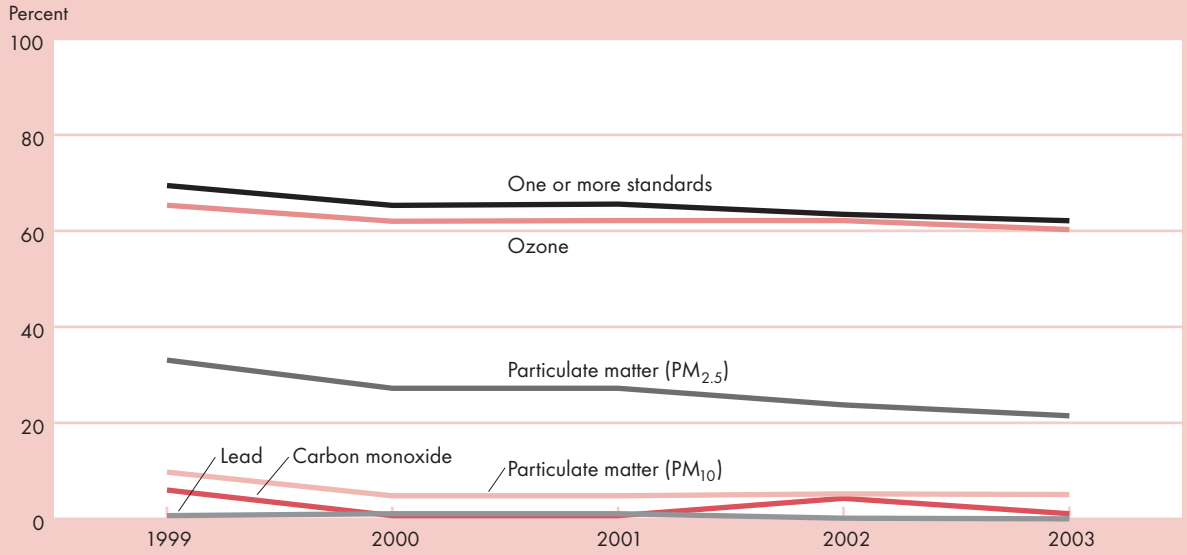
- About half of children in kindergarten through 3rd grade (52 percent) and those in grades 4 through 8 (55 percent) received some nonparental child care in 2001.
- Parents reported that older children were more likely to care for themselves before or after school than younger children. Three percent of children in kindergarten through 3rd grade and 25 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 POP8.A–POP8.C on pages 105–111. Endnotes begin on page 73.

Children's Environments

The environment in which children live plays an important role in their health and development. Children need a clean, safe place in which they can grow and play. Children may be more vulnerable to environmental contaminants because of their increased potential for exposure to pollutants, since they eat, drink, and breathe more per body weight than adults. In addition, environmental contaminants in air, food, drinking water, and other sources are associated with a number of different ailments, and these contaminants may disproportionately affect children because they are still developing. One important measure of children's environmental health is the percentage of children living in areas in which the Primary National Ambient Air Quality Standards are exceeded. These standards, which were established by the Clean Air Act, are designed to establish limits 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.[25–28] Lead can affect development of the central nervous system in young children,[29] and exposure to carbon monoxide can reduce the capacity of the blood to carry oxygen.[30] Objective 8–01 of the Healthy People 2010 initiative aims to reduce the proportion of people exposed to air that exceeds the levels of health-based standards for harmful air pollutants.

Figure POP9.A **Percentage of children ages 0–17 living in counties in which one or more of the Primary National Ambient Air Quality Standards was exceeded, 1999–2003**



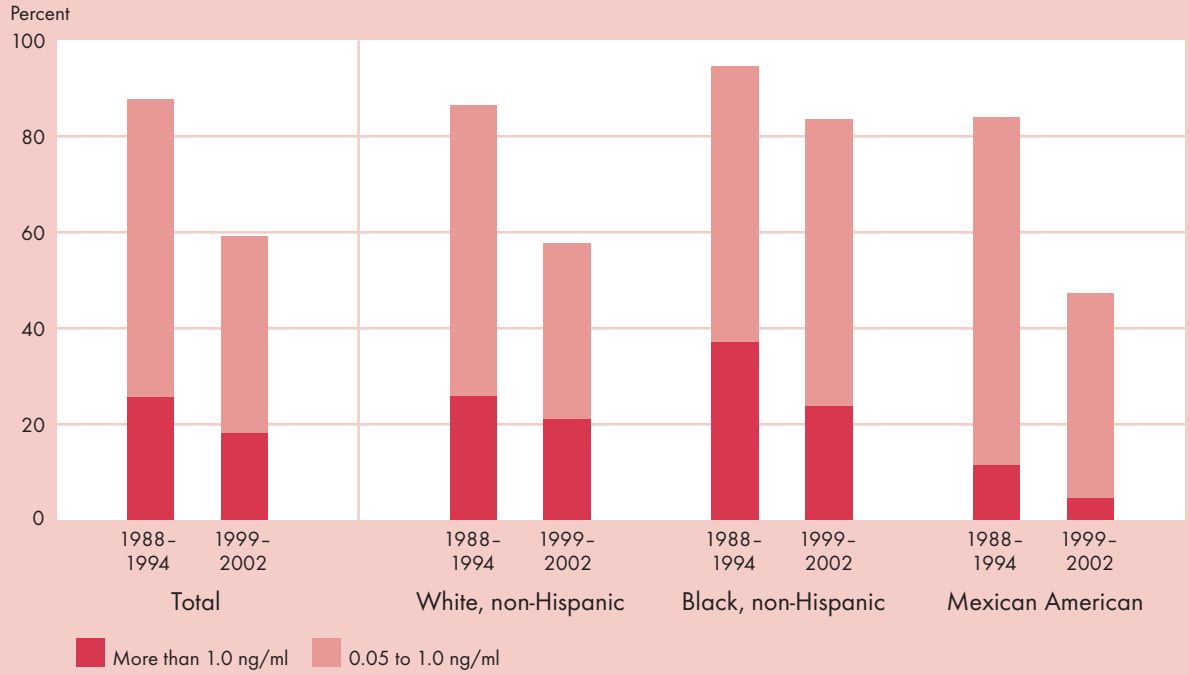
NOTE: The U.S. Environmental Protection Agency has set national air quality standards for six principal pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2).[31] Nitrogen dioxide and sulfur dioxide are not included in the graph because essentially all areas meet the Primary National Ambient Air Quality Standards for these pollutants.[32]

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

- In 2003, 62 percent of children lived in counties in which one or more of the Primary National Ambient Air Quality Standards were exceeded, an improvement from 69 percent in 1999.
- The Primary National Ambient Air Quality standard for ozone is exceeded most often. Ozone, as well as particulate matter, can cause respiratory problems and aggravate respiratory diseases, such as asthma, in children.[25,27,28] These problems can lead to increased emergency room visits and hospitalizations.[33–36]
- In 2003, approximately 21 percent of children lived in counties that exceeded the annual $PM_{2.5}$ standard, an improvement from 33 percent in 1999. The term "particulate matter" (PM) includes both solid particles and liquid droplets found in air.[28] Airborne particles measuring less than 10 micrometers in diameter (PM_{10}) pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter ($PM_{2.5}$) 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 a number of adverse health effects, including infections of the lower respiratory tract, bronchitis, pneumonia, fluid in the middle ear, and sudden infant death syndrome (SIDS).[37–39] Secondhand smoke can also play a role in the development and exacerbation of asthma.[40–45] Cotinine, a breakdown product of nicotine, is a marker for recent (previous 1–2 days) exposure to secondhand smoke. Objective 27–9 of the Healthy People 2010 initiative aims to reduce the proportion of children who are regularly exposed to tobacco smoke at home.

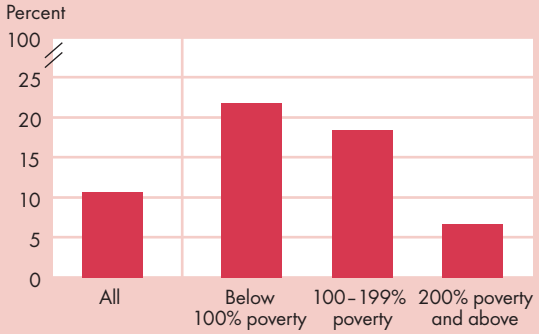
Figure POP9.B **Percentage of children ages 4–11 with specified blood cotinine levels by race and Hispanic origin, 1988–1994 and 1999–2002**



NOTE: Cotinine is detectable at or above 0.05 nanograms per milliliter (ng/mL). Cotinine levels are reported for nonsmoking children only. The average (geometric mean) blood cotinine level in children living in homes where someone smokes is 1.0 ng/mL.[46]

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.

Figure POP9.C **Percentage of children ages 0–6 living in homes where someone smokes regularly by poverty status, 2003**



SOURCE: U.S. Environmental Protection Agency, Indoor Environments Division, National Survey on Environmental Management of Asthma and Children's Exposure to Environmental Tobacco Smoke.

- The percentage of children ages 4–11 with detectable blood cotinine levels decreased between 1988–1994 (88 percent) and 1999–2002 (59 percent). In 1999–2002, 18 percent had blood cotinine levels more than 1.0 ng/mL, down from 26 percent in 1988–1994.
- In 1999–2002, 84 percent of Black, non-Hispanic children ages 4–11 had cotinine in their blood, compared with 58 percent of White, non-Hispanic and 47 percent of Mexican American children.
- In 2003, the percentage of children ages 0–6 living in homes where someone smoked regularly was 11 percent.[47] Children living below the poverty level were more likely than their peers to be living in homes where someone smoked.

Bullets contain references to data that can be found in Tables POP9.A–POP9.C on pages 112–114. Endnotes begin on page 73.

Data Needed

Population and Family Characteristics

Current data collection systems at the national level do not provide extensive detailed information on children's families, their caregivers, or their environment. Certain topical databases provide some of this information, but data need to be collected across domains of child well-being regularly enough to discern trends in where, how, and with whom children spend their time. More data are also needed on:

- *Family interactions.* 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 recent Counting Couples Workshops, sponsored by the Forum. More information on the workshops is available online at http://www.childstats.gov.
- *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 regular Federal data source examines time spent on the whole spectrum of children's activities. The Bureau of Labor Statistics has initiated a continuous time use survey that will cover time invested in the care of children, as well as time spent in other labor market and non-labor market activities. The survey will also include responses from youth ages 15 and over. Inclusion of time use questions in other surveys is of continued interest to Forum agencies.
- *Children's environments.* Further data are needed to monitor the environment of children and their potential exposure to environmental contaminants. In particular, data are needed to more thoroughly describe children's potential exposure to common, hazardous, and indoor air pollutants; drinking and surface water contaminants; and food and soil contaminants.

PART II

Indicators of Children's Well-Being

Part II: The data in Part II offer insight into the condition of American children by providing information in four key areas of child well-being: economic security, health, behavior and social environment, and education.

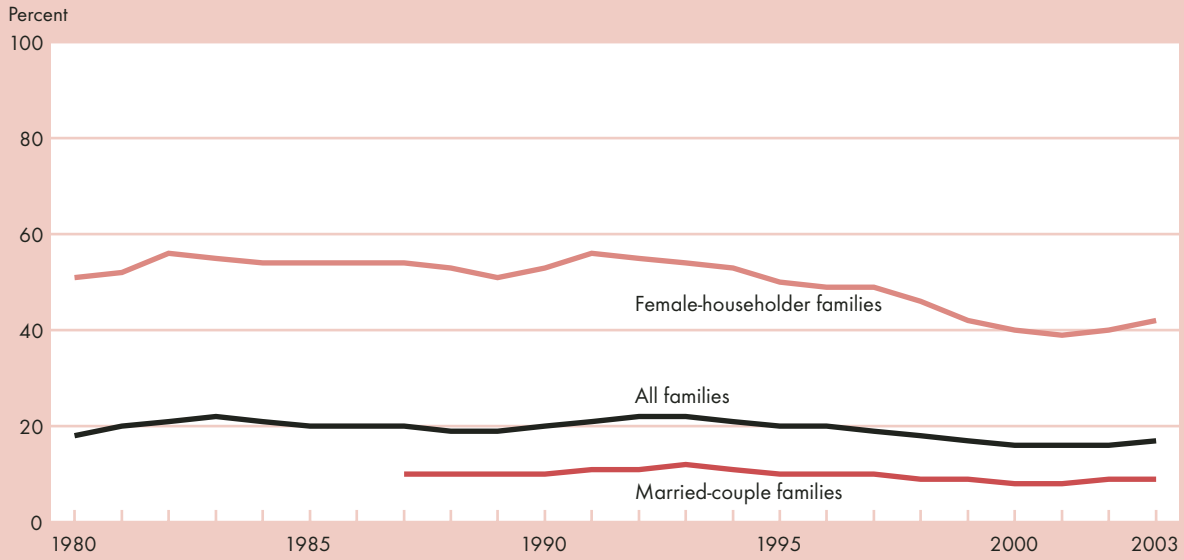
Economic Security Indicators

The well-being of children depends greatly on the material well-being of their family. The Economic Security indicators presented in this section attempt to measure a family's ability to access basic material needs. The first two indicators measure the economic well-being of children through the family's access to income and the employment status of the resident parent or parents. The final three indicators measure the accessibility of three economic necessities—housing, food, and health care. Additional important indicators of children's economic well-being for which data are not available include measures of family income and poverty over longer periods of time, as well as homelessness.

Child Poverty and Family Income

Children in low-income families fare less well than children in more affluent families on many of the indicators presented in this report. Compared with children living in families above the poverty line, children living below the poverty line are more likely to have difficulty in school,[48] to become teen parents,[49] and, as adults, to earn less and be unemployed more frequently.[48] This indicator is the official poverty measure for the United States, which is based on OMB Statistical Policy Directive 14. In response to the National Academy of Science's recommendations, the U.S. Census Bureau is researching alternative poverty measures.[50]

Indicator ECON1.A **Percentage of related children ages 0–17 living in poverty by family structure, 1980–2003**



NOTE: Estimates refer to children ages 0–17 who are related to the householder. In 2003, the average poverty threshold for a family of four was $18,810 in annual income.

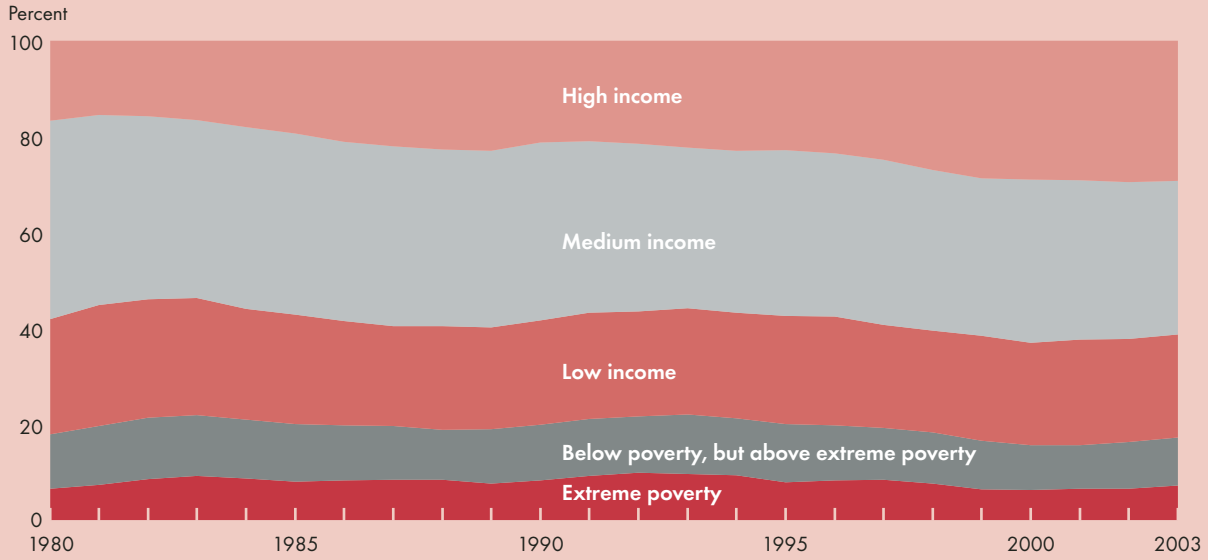
SOURCE: U.S. Census Bureau, Current Population Survey, 1981 to 2004 Annual Social and Economic Supplements.

- The percentage of children living in families with incomes below their poverty threshold was 17 percent in 2003, up from 16 percent in 2002. The official poverty rate for children has fluctuated since the early 1980s: it reached a high of 22 percent in 1993 and decreased to 16 percent in 2000.[51]
- The poverty rate for children living in female-householder families (no spouse present) also fluctuated between 1980 and 1993, then declined more between 1993 and 2000 than the rate for all children in families. In 1993, 54 percent of children living in female-householder families were living in poverty; by 2003, this proportion had decreased to 42 percent. The percentage of Black-alone children living in female-householder families in poverty wavered around 66 percent until 1993, and has since declined to 50 percent in 2003.[1]
- Children ages 0–5 were more likely to be living in families with incomes below the poverty line than children ages 6–17. In 2003, 20 percent of children ages 0–5 lived in poverty, compared with 16 percent of older children.
- Children in married-couple families were much less likely to be living in poverty than children living only with their mothers. In 2003, 9 percent of children in married-couple families were living in poverty, compared with 42 percent in female-householder families.
- This contrast by family structure differs among racial and Hispanic groups. For example, in 2003, 11 percent of Black-alone children in married-couple families lived in poverty, compared with 50 percent of Black-alone children in female-householder families.[1] Twenty-one percent of Hispanic children in married-couple families lived in poverty, compared with 51 percent in female-householder families.
- In 2003, 18 percent of all children ages 0–17 lived in poverty, up from 17 percent in 2002. The poverty rate was higher for Black-alone and Hispanic children than for White-alone, non-Hispanic children. In 2003, 10 percent of White-alone, non-Hispanic children lived in poverty, compared with 34 percent of Black-alone children and 30 percent of Hispanic children.[1]

The full distribution of the income of children's families provides a broader picture of children's economic situations. The gap between affluent and poor children is an important measure for understanding the relative deprivation experience of poor children.

Indicator ECON1.B

Percentage of related children ages 0–17 by family income relative to the poverty line, 1980–2003



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. Extreme poverty is less than 50 percent of the poverty threshold (i.e., $9,405 for a family of four in 2003). Below poverty, but above extreme poverty is 50–99 percent of the poverty threshold (i.e., from $9,405 through $18,809 for a family of four in 2003). Low income is 100–199 percent of the poverty threshold (i.e., from $18,810 through $37,619 for a family of four in 2003). Medium income is 200–399 percent of the poverty threshold (i.e., from $37,620 through $75,239 for a family of four in 2003). High income is 400 percent of the poverty threshold or more (i.e., $75,240 or more for a family of four in 2003).[52]

SOURCE: U.S. Census Bureau, Current Population Survey, 1981 to 2004 Annual Social and Economic Supplements.

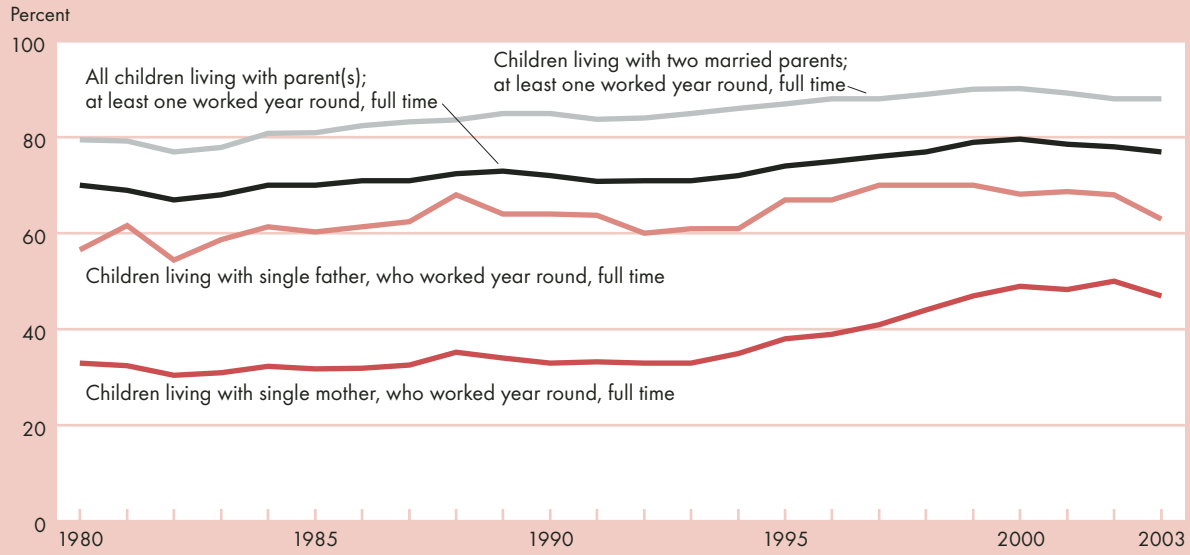
- In 2003, more children lived in families with medium income (32 percent) than in families in other income groups. Smaller percentages of children lived in families with low income and with high income (22 and 29 percent, respectively).
- The percentage of children living in families with medium income fell from 41 percent in 1980 to 32 percent in 2003, while the percentage of children living in families with high income rose from 17 to 29 percent.
- The percentage of children living in families experiencing extreme poverty was 7 percent in 1980. This percentage rose to 10 percent in 1992 and decreased to 7 percent in 2003. Concurrently, three times as many children lived in families with very high incomes[53] in 2003 as in 1980 (13 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.[54,55] One measure of secure parental employment is the percentage of children whose resident parent or parents were employed full time during a given year.

Indicator ECON2 **Percentage of children ages 0–17 living with at least one parent employed year round, full time by family structure, 1980–2003**



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

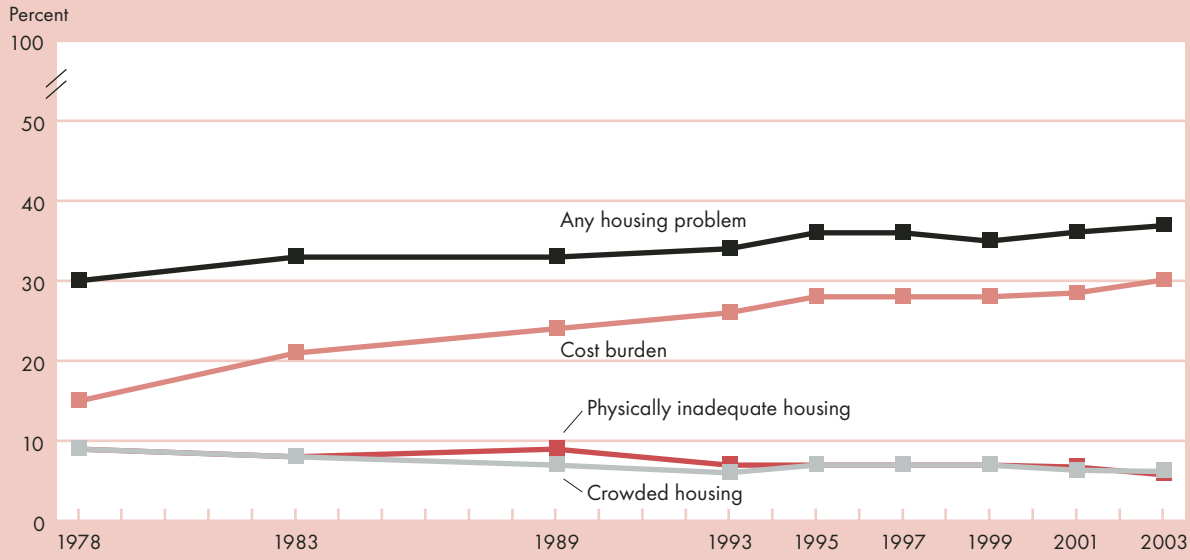
- The percentage of children who had at least one parent working year round, full time fell slightly in 2003 to 77 percent. This was slightly below its peak of 80 percent in 2000, but about the same as in 1998. Despite the decline, this proportion still remained quite high in its historical context; in the early 1990s, the proportion was 72 percent.
- In 2003, 88 percent of children living in married two-parent families had at least one parent who worked year round, full time. In contrast, 63 percent of children living with a single father and 47 percent of children living with 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 (30 percent and 86 percent, respectively, in 2003). For children living with two married parents, 52 percent of children living below the poverty line had at least one parent working year round, full time, compared with 91 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 71 percent of Hispanic children and 61 percent of Black, non-Hispanic children lived in families with secure parental employment in 2003, compared with 82 percent of White, non-Hispanic children.
- In 2003, 29 percent of children in married two-parent families had both parents working year round, full time, up from 17 percent in 1980 but down slightly from the peak of 33 percent in 2000.

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

Housing Problems

Inadequate, crowded, or costly housing can pose serious problems to children's physical, psychological, or material well-being.[56] The percentage of households with children that report that they are living in physically inadequate,[57] crowded, and/or costly housing provides an estimate of the percentage of children whose well-being may be affected by their family's housing.

Indicator ECON3 **Percentage of households with children ages 0–17 that report housing problems by type of problem, selected years 1978–2003**



NOTE: Data are available for 1978, 1983, 1989, and biennially since 1993. 1978 data are based on 1970 Census weights; 1983 and 1989 data on 1980 weights; 1993, 1995, 1997, 1999 data on 1990 weights; and 2001 and 2003 data on 2000 weights.

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

- In 2003, 37 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.[58]
- The share of U.S. households with children that reported any housing problems rose from 30 percent in 1978 to 36 percent in 1995 and has remained stable since.
- Inadequate housing, defined as housing with severe or moderate physical problems, has become slightly less common. In 2003, 6 percent of households with children had inadequate housing, compared with 9 percent in 1978.
- Crowded housing, defined as housing in which there is more than one person per room, has also declined slightly among households with children, from 9 percent in 1978 to 6 percent in 2003.
- Improvements in housing conditions, however, have been accompanied by rising housing costs. Between 1978 and 2003, the incidence of cost burdens among households with children doubled from 15 percent to 30 percent. The proportion with severe cost burdens, paying more than half of their income for housing, rose from 6 to 11 percent over the same period, although it has remained stable since 1993.
- Households that receive no rental assistance and have severe cost burdens or physical problems are defined as having severe housing problems.[59] The percentage of households with children facing severe housing problems was unchanged at 11 percent in 2003, and has been stable since 1993.
- Severe housing problems are especially prevalent among very-low-income renters.[60] In 2003, 29 percent of very-low-income renter households with children reported severe housing problems, with severe cost burden as the major problem. This incidence reflects a decrease from the 33 percent with severe housing problems in 1993.

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

Food Security and Diet Quality

A family's ability to provide for their children's nutritional needs is linked to the family's food security—that is, to its access at all times to enough food for an active, healthy life.[61] Households are classified as food insecure based on reports of difficulty obtaining enough food, reduced diet quality, and anxiety about their food supply. These households are also more likely to report increased use of emergency food sources and other coping behaviors, and some of them report reduced food intake and hunger.[62] In most of these households, children's eating patterns are disrupted to some extent, and in about 1 out of 4 food-insecure households, parents report reducing children's food intake at times because the household cannot afford enough food. However, children—especially younger children—in U.S. households are usually protected from hunger even if adults are hungry because they lack sufficient resources for food. Only in the most severely food-insecure households are both children and adults hungry due to the food insecurity in the household.[63]

Indicator ECON4.A **Percentage of children ages 0–17 in food-insecure households by poverty status and presence of hunger, selected years 1995–2003**

NOTE: Statistics for 1996–98 and 2000 are omitted because they are not directly comparable with those for other years.

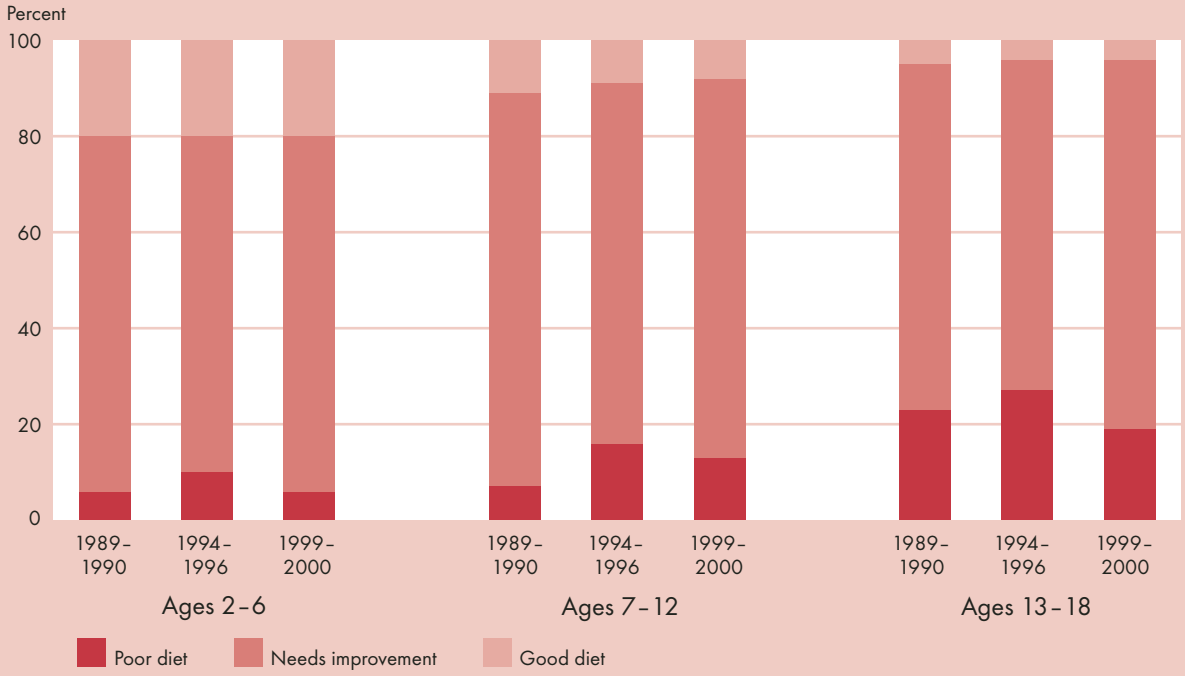
SOURCE: U.S. Census Bureau, Food Security Supplement to the Current Population Survey; U.S. Department of Agriculture, Economic Research Service and Food and Nutrition Service.

- About 13 million children (18 percent) lived in households that were classified as food insecure at times in 2003. However, only a small proportion of the households reported hunger among the children.[63] In 2003, of the 18 percent of children who lived in food-insecure households, 14 percent lived in households classified as food insecure without hunger, 4 percent lived in households with hunger among adults only, and 0.6 percent lived in households with hunger among both adults and children.
- The percentage of children living in food-insecure households declined from 19 percent in 1995 to 17 percent in 1999, then increased to just over 18 percent in 2002 and 2003. The percentage of children living in households classified as food insecure with hunger among children declined from 1.3 percent in 1995 to 0.7 percent in 1999 and has remained in the range of 0.6 to 0.8 percent since then.
- The proportions of children living in food-insecure households were substantially above the national average (18 percent) for those living in poverty (45 percent), Black-alone, non-Hispanics (31 percent) and Hispanics (31 percent), those whose parents or guardians lacked a high school diploma (38 percent), and those living with a single mother (34 percent).[1]

The diet quality of children and adolescents is of concern because poor eating patterns established in childhood usually transfer to adulthood. Such patterns are major factors in the increasing rate of child obesity over the past decades and are contributing factors to certain diseases. The Healthy Eating Index (HEI) is a summary measure of diet quality. The HEI consists of 10 components, each representing different aspects of a healthful diet. Components 1 through 5 measure the degree to which a person's diet conforms to the U.S. Department of Agriculture's Food Guide Pyramid serving recommendations for the five major food groups: grains, vegetables, fruits, milk, and meat/meat alternatives. Components 6 and 7 measure fat and saturated fat consumption. Components 8 and 9 measure cholesterol intake and sodium intake, and component 10 measures the degree of variety in a person's diet. Scores for each component are given equal weight and added to calculate an overall HEI score. This overall HEI score is then used to determine diet quality based on a scale established by nutrition experts.[64]

Indicator ECON4.B

Percentage of children ages 2–18 by age and diet quality as measured by the Healthy Eating Index, 1989–90, 1994–96, and 1999–2000



NOTE: The maximum combined score for the 10 components is 100. An HEI score above 80 implies a good diet, an HEI score between 51 and 80 implies a diet that needs improvement, and an HEI score less than 51 implies a poor diet. Data for three time periods are not necessarily comparable because of methodological differences in data collection.

SOURCE: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion (1989–90 and 1994–96), Continuing Survey of Food Intake of Individuals, and 1999–2000 National Health and Nutrition Examination Survey (1999–2000).

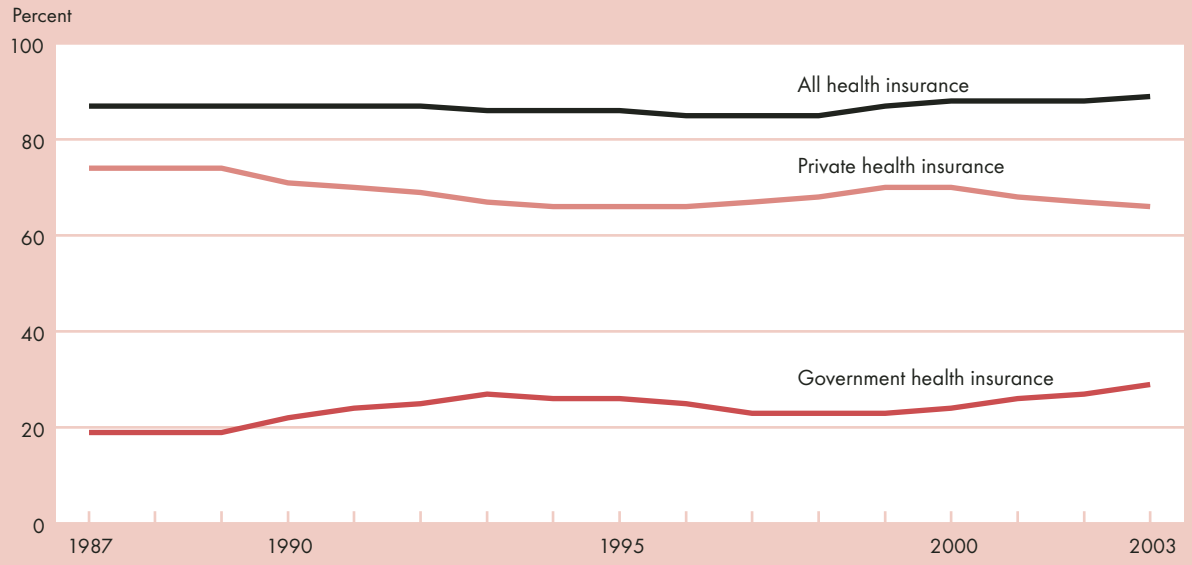
- In 1999–2000, as in previous years, most children had a diet that was poor or needed improvement, as indicated by their HEI score.
- As children get older, their diet quality declines. In 1999–2000, among children ages 2–6, 20 percent had a good diet, 74 percent had a diet needing improvement, and 6 percent had a poor diet. For those ages 7–12, 8 percent had a good diet, 79 percent had a diet needing improvement, and 13 percent had a poor diet. For children ages 13–18, 4 percent had a good diet, 77 percent had a diet needing improvement, and 19 percent had a poor diet.
- The lower quality diets of older children are linked to declines in their fruit and sodium scores.
- Children in families below poverty are less likely than higher income children to have a diet rated as good. In 1999–2000, for children ages 2–6, 17 percent of those in poverty had a good diet, compared with 22 percent of those living at or above the poverty line.

Bullets contain references to data that can be found in Tables ECON4.A–ECON4.D on pages 124–129. Endnotes begin on page 73.

Access to Health Care

Children with health insurance (government 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.

Indicator ECON5.A **Percentage of children ages 0–17 covered by health insurance by selected type of health insurance, 1987–2003**



NOTE: Government health insurance for children consists primarily of Medicaid, but also includes Medicare, SCHIP (the 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. Estimates for 1999 through 2003 are not directly comparable with earlier years, before the verification questions were added. Children are considered to be covered by health insurance if they had government or private coverage any time during the year.

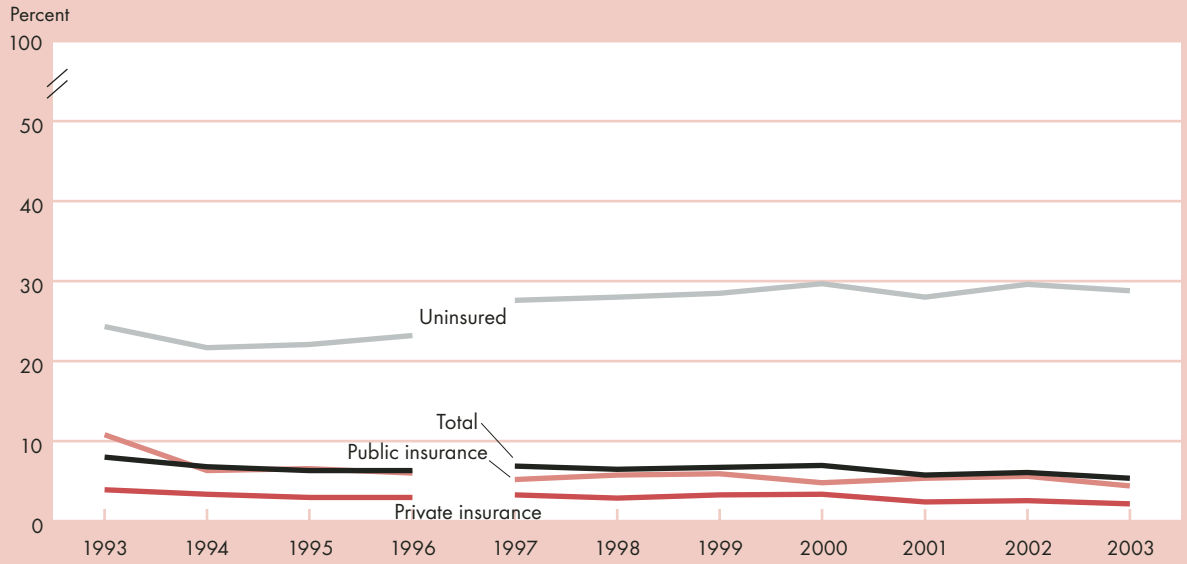
SOURCE: U.S. Census Bureau, unpublished tables based on analyses from the Current Population Survey, 1988 to 2004 Annual Social and Economic Supplements.

- In 2003, 89 percent of children had health insurance coverage at some point during the year. Between 85 and 89 percent of children have had health insurance in each year since 1987.
- The number of children who had no health insurance at any time during 2003 was 8.4 million (11 percent of all children), which was similar to 2002.
- The proportion of children covered by private health insurance decreased from 74 percent in 1987 to 66 percent in 1994, increased to 70 percent in 1999, and dropped to 66 percent in 2003. During the same time period, the proportion of children covered by government health insurance grew from 19 percent in 1987 to 27 percent in 1993. Government health insurance decreased until 1999 and then began to climb again to 29 percent in 2003.[65]
- Hispanic children are less likely to have health insurance than either White-alone, non-Hispanic or Black-alone children. In 2003, 79 percent of Hispanic children were covered by health insurance, compared with 93 percent of White-alone, non-Hispanic children and 86 percent of Black-alone children.[1]
- The proportion of children covered by any health insurance is about the same across age groups. The type of insurance, however, varies by the age of the child: government-provided insurance is more prevalent among younger children, while private health insurance is more common among older children.

The 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.[66] 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.[67,68] 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.[69]

Indicator ECON5.B

Percentage of children ages 0–17 with no usual source of health care by type of health insurance, 1993–2003



NOTE: 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 1997–2003 are not strictly comparable with earlier data.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

- In 2003, 5 percent of children had no usual source of health care, which is the lowest percentage recorded since 1993.
- Uninsured children are much more likely to have no usual source of care than are children who have health insurance. Children who were uninsured were 13 times as likely as those with private insurance to have no usual source of care in 2003.
- There are differences in the percentage of children having no usual source of care by type of health insurance coverage. In 2003, children with public insurance, such as Medicaid, were more likely to have no usual source of care than were children with private insurance (4 percent and 2 percent, respectively).
- In 2003, 11 percent of children in families with incomes below the poverty threshold had no usual source of health care.
- Older children are slightly more likely than younger children to lack a usual source of health care. In 2003, 6 percent of children ages 5–17 had no usual source of care, compared with 3 percent of children ages 0–4.

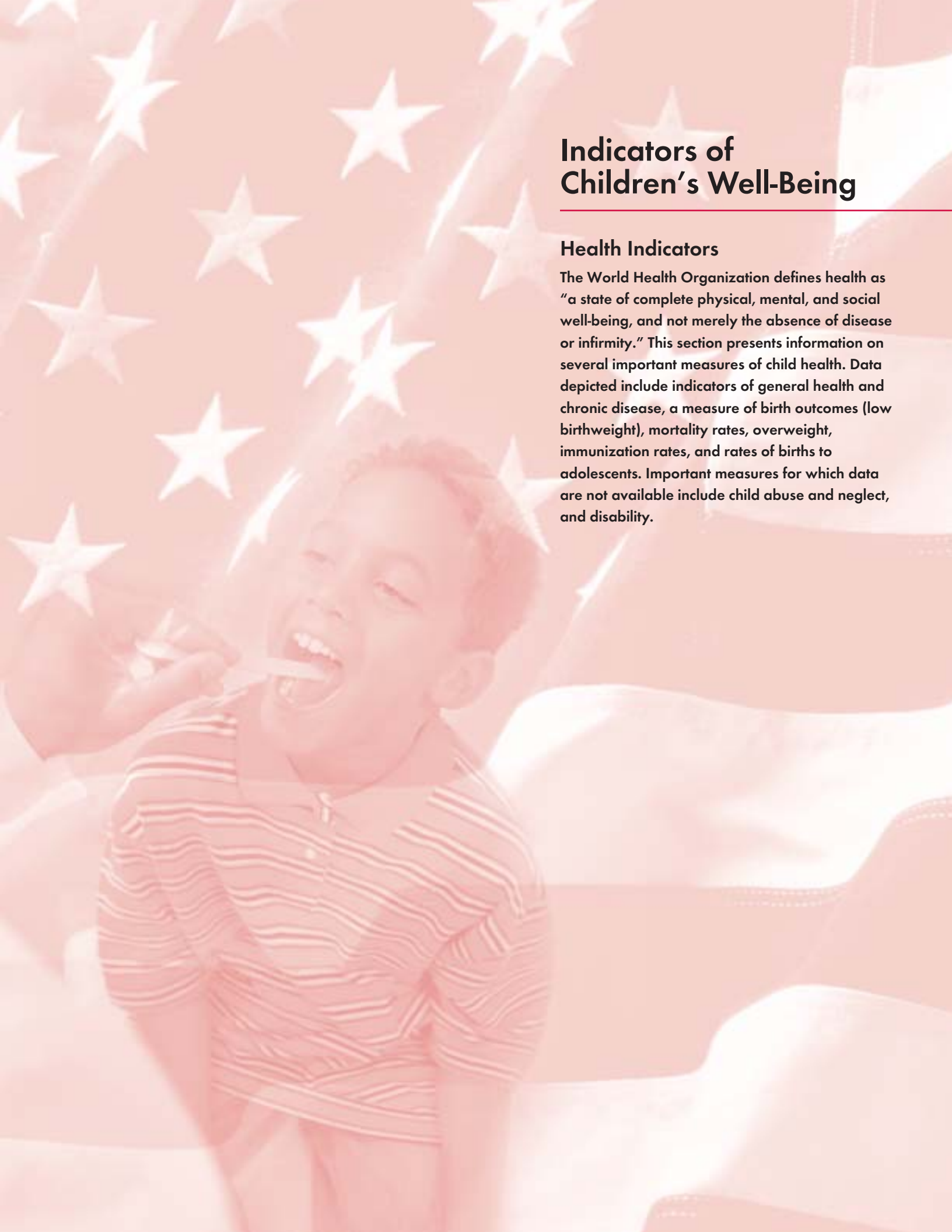
Bullets contain references to data that can be found in Tables ECON5.A and ECON5.B on pages 130–132. Endnotes begin on page 73.

Indicators Needed

Economic Security

Economic security is multifaceted, and several measures are needed to adequately represent its various aspects. 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 well-being over time.
- *Long-term poverty among families with children.* Although Federal data are available on child poverty and alternative measures are being developed (see Indicators ECON1.A and ECON1.B, Child Poverty and Family Income, and the discussion of alternative poverty rates on page 120), the surveys that collect these data do not capture information on long-term poverty. Long-term poverty among children can be estimated from existing longitudinal surveys, but changes to current surveys would be needed to provide estimates on a regular basis. Since long-term poverty can have serious negative consequences for children's well-being, regularly collected and reported data are needed to produce regular estimates.
- *Homelessness.* At present, there are no regularly collected data on the number of homeless children in the United States, although there have been occasional studies aimed at estimating this number.



Indicators of Children's Well-Being

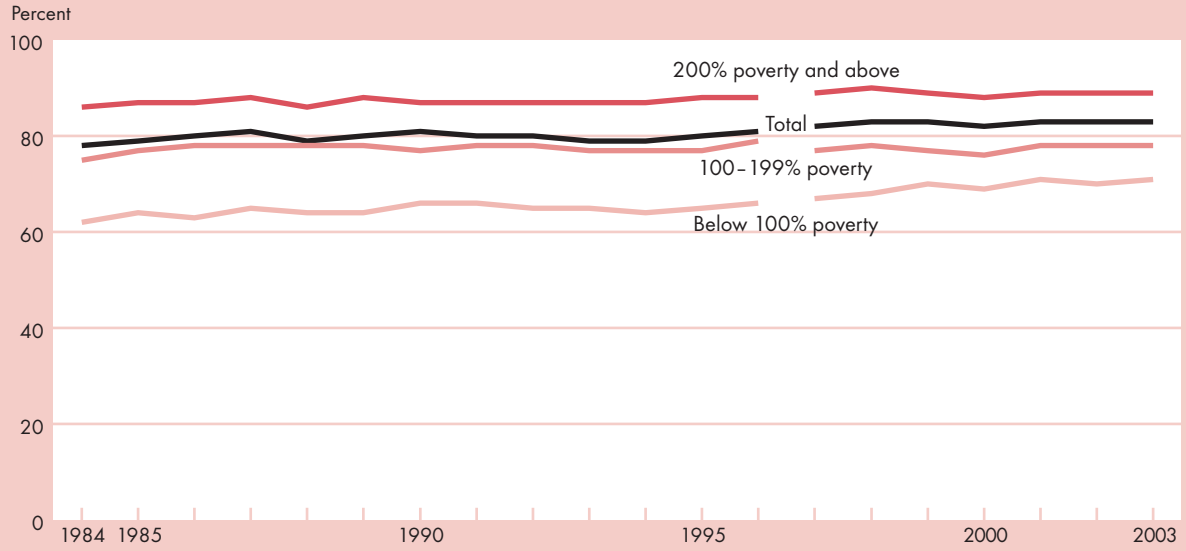
Health Indicators

The World Health Organization defines health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." This section presents information on several important measures of child health. Data depicted include indicators of general health and chronic disease, a measure of birth outcomes (low birthweight), mortality rates, overweight, immunization rates, and rates of births to adolescents. Important measures for which data are not available include child abuse and neglect, and disability.

General Health Status

The health of children and youth is fundamental to their well-being and development. Parental reports of their children's health provide one indication of the overall health status of the Nation's children. This indicator measures the percentage of children whose parents report them to be in very good or excellent health.

Indicator HEALTH1 **Percentage of children ages 0–17 in very good or excellent health by poverty status, 1984–2003**



NOTE: In 1997, the National Health Interview Survey was redesigned. Data for 1997–2003 are not strictly comparable with earlier data.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

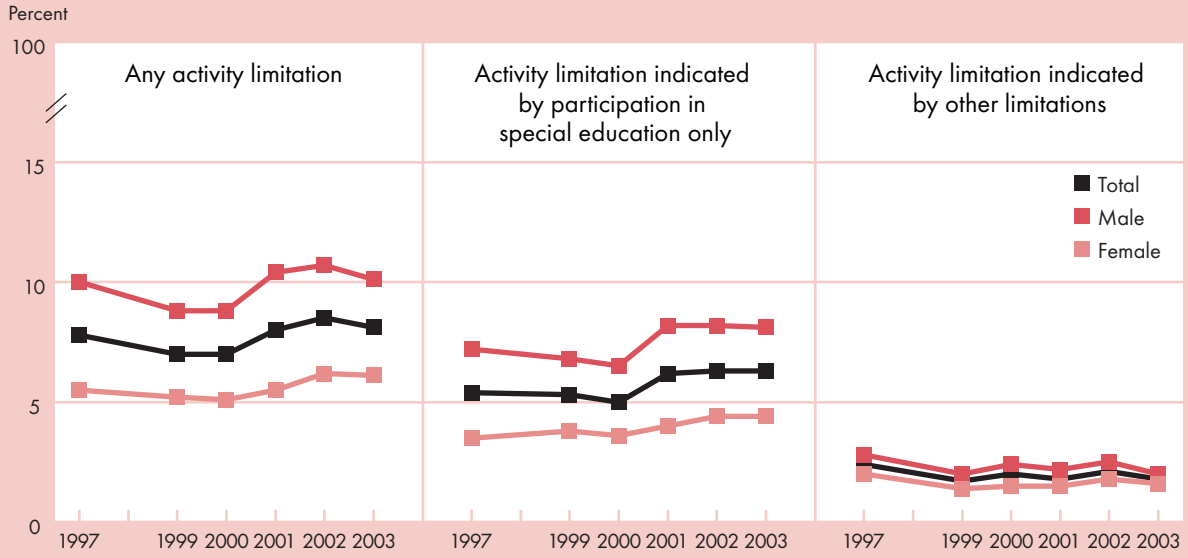
- In 2003, about 83 percent of children were reported by their parents to be in very good or excellent health.
- Children ages 0–4 are slightly more likely to be in very good or excellent health than are children ages 5–17 (86 and 82 percent, respectively).
- Child health varies by family income. Children living in families with incomes below the Federal poverty level are less likely than children in higher income families to be in very good or excellent health. In 2003, about 71 percent of children in poor and 78 percent in near-poor families (those with family incomes less than 100 percent and 100–199 percent of the poverty level, respectively) were in very good or excellent health, compared with 89 percent of children in non-poor families (those with family incomes of 200 percent or more of the poverty level).
- Each year, children at or above the poverty level were more likely to be in very good or excellent health than were children whose families were below the poverty level. However, the health gap between children below and those at or above the poverty level decreased between 1984 and 2003. From 1984 to 2003, the percentage of children in very good or excellent health increased from 62 to 71 percent among poor children and increased from 75 to 78 percent among near-poor children and 86 to 89 percent among non-poor children.
- White-alone, non-Hispanic children were more likely than Black-alone, non-Hispanic and Hispanic children to be in very good or excellent health. In 2003, 88 percent of White-alone, non-Hispanic children were reported to be in very good or excellent health, compared with 75 percent of Black-alone, non-Hispanic children and 74 percent of Hispanic children.[1]

Bullets contain references to data that can be found in Table HEALTH1 on page 133. See indicator ECON1.A and ECON1.B on pages 18 and 19 for a description of child poverty. Endnotes begin on page 73.

Activity Limitation

Activity limitation refers to a person's inability, due to a chronic physical, mental, emotional, or behavioral condition, to participate fully in age-appropriate activities. Age-appropriate activities for children ages 5–17 consist of a child's ability to participate in school and to perform other activities including self-care and walking. Activity limitation is a broad measure of health and functioning affected by a variety of chronic health conditions. The causes of activity limitation most often reported by parents of children ages 5–17 include learning disabilities, speech problems, and other mental, emotional, and behavioral problems.[70]

Indicator HEALTH2 **Percentage of children ages 5–17 with activity limitation resulting from one or more chronic health conditions by gender, selected years 1997–2003**



NOTE: Children are identified as having activity limitation by asking parents (1) whether children receive special education services and (2) whether they are limited in their ability to walk, care for themselves, or participate in other activities. "Activity limitation indicated by participation in special education" only includes children identified solely by their use of special education services. "Activity limitation indicated by all other limitations" includes limitations in self-care, walking, or other activities; children in this category may also receive special education services.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

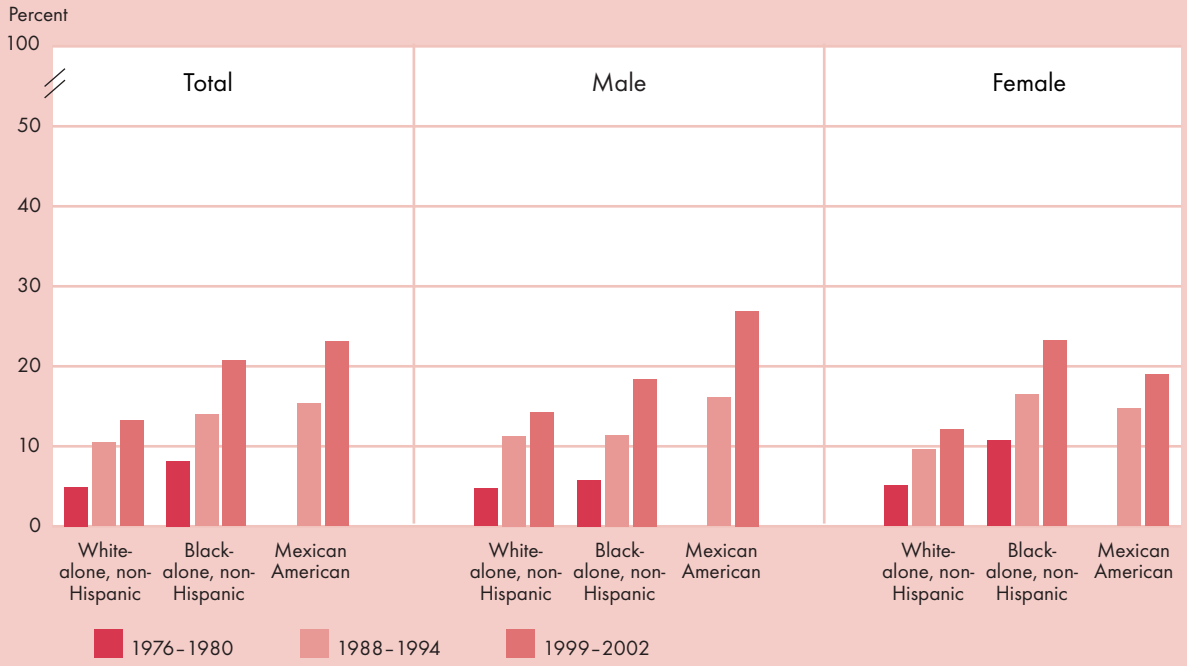
- In 2003, approximately 8 percent of children ages 5–17 were reported by parents to have activity limitations due to chronic conditions. Six percent were identified as having activity limitation solely by their participation in special education. Two percent had limitations in their ability to walk, care for themselves, or participate in other activities.
- Activity limitations, particularly those identified only by participation in special education, were reported more often for male children than for female children. The reasons for this gender difference are unclear.
- In 2003, 10 percent of children in poor and near-poor families (those with family incomes less than 100 percent and 100–199 percent of the poverty level, respectively) had activity limitations, compared with 7 percent of children in non-poor families (those with family incomes of 200 percent or more of the poverty level). Among children of different races and ethnic origins, Hispanic children were less likely than White-alone, non-Hispanic and Black-alone, non-Hispanic children to have a parental report of activity limitation.[1]

Bullets contain references to data that can be found in Table HEALTH2 on page 134. Endnotes begin on page 73.

Overweight

Overweight adolescents often become overweight adults, with an increased risk for a wide variety of poor health outcomes, including diabetes, stroke, heart disease, arthritis, and certain cancers.[71,72] The immediate consequences of overweight in childhood are often psychosocial but also include cardiovascular risk factors such as high blood pressure, high cholesterol, and the precursors to diabetes.[73] The prevalence of overweight among U.S. children changed relatively little from the early 1960s through 1980; however, since 1980 it has sharply increased.[74] Recent national estimates indicate that just over 60 percent of children participate in vigorous physical activity and less than a quarter eat the recommended five or more servings of fruits and vegetables per day.[75] In addition to individual factors such as these, social, economic, and environmental forces (e.g., advances in technology and trends in eating out) may contribute to the increasing prevalence of overweight.

Indicator HEALTH3 **Percentage of children ages 6–18 who are overweight by gender, race, and Hispanic origin, 1976–1980, 1988–1994, and 1999–2002**



NOTE: Data for Mexican American children are not available from 1976–1980 due to small sample sizes. Oversampling of Mexican Americans provided estimates for 1988–1994 and 1999–2002. Overweight is defined as body mass index (BMI) at or above the 95th percentile of the 2000 Centers for Disease Control and Prevention BMI-for-age growth charts. BMI is calculated as weight in kilograms divided by the square of height in meters.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.

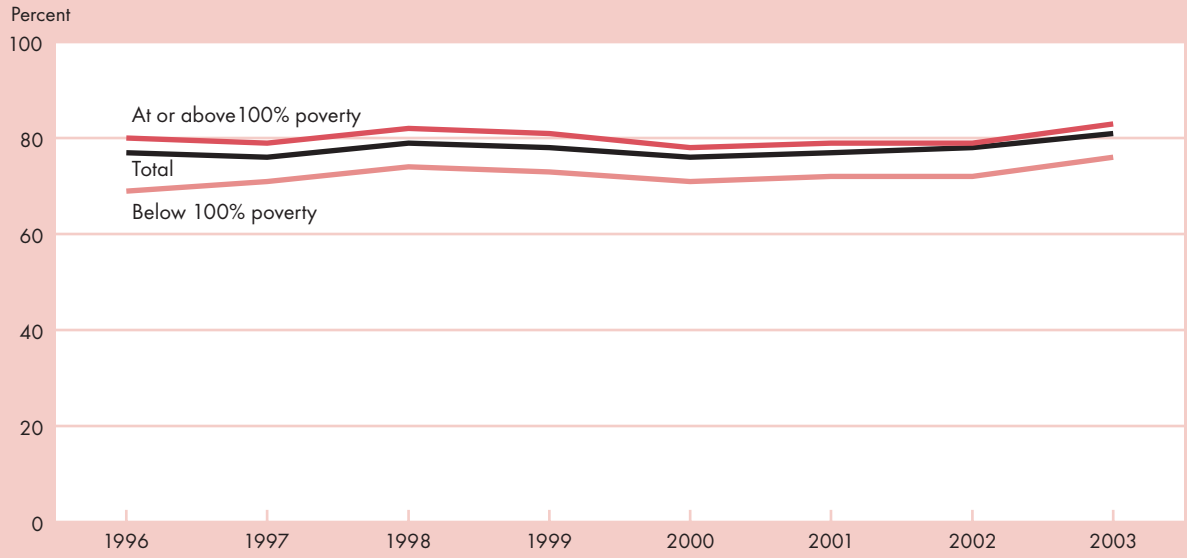
- Since the 1980s, there has been a steady increase in the proportion of children who are overweight. In 1976–1980, only 6 percent of children ages 6–18 were overweight. By 1988–1994, this proportion had risen to 11 percent, and it continued to climb to 16 percent by 1999–2002.
- Data from 1999–2002 indicate that substantial racial and ethnic disparities exist such that larger percentages of Black-alone, non-Hispanic, and Mexican American children are overweight, compared with White-alone, non-Hispanic children.[1]
- Black-alone, non-Hispanic female children and Mexican American male children are at particularly high risk of being overweight. In 1999–2002, 23 percent of Black-alone, non-Hispanic female children and 27 percent of Mexican American male children were overweight.[1]
- Among adolescent males ages 12–18, virtually no differences existed between ethnic groups in 1988–1994. By 1999–2002, there were large ethnic differences: 15 percent of White-alone, non-Hispanic, 20 percent of Black-alone, non-Hispanic, and 27 percent of Mexican American males were overweight.[1]

Bullets contain references to data that can be found in Table HEALTH3 on page 135. Endnotes begin on page 73.

Childhood Immunization

Rates of childhood immunization are one measure of the extent to which children are protected from serious vaccine-preventable illnesses. The combined immunization series (often referred to as the 4:3:1:3 combined series) rate measures the extent to which children have received the recommended doses of four key vaccinations.

Indicator HEALTH4 **Percentage of children ages 19–35 months with the 4:3:1:3 combined series of vaccinations by poverty status, 1996–2003**



NOTE: Vaccinations included in the combined series are 4 doses of a vaccine containing diphtheria and tetanus toxoids (either diphtheria, tetanus toxoids, and pertussis vaccine [DTP] or diphtheria and tetanus toxoids vaccine [DT]), 3 doses of polio vaccine, 1 dose of a measles-containing vaccine (MCV), and 3 doses of *Haemophilus influenzae* type b (Hib) vaccine. The recommended immunization schedule for children is available at http://www.cdc.gov/nip/recs/child-schedule.pdf.

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

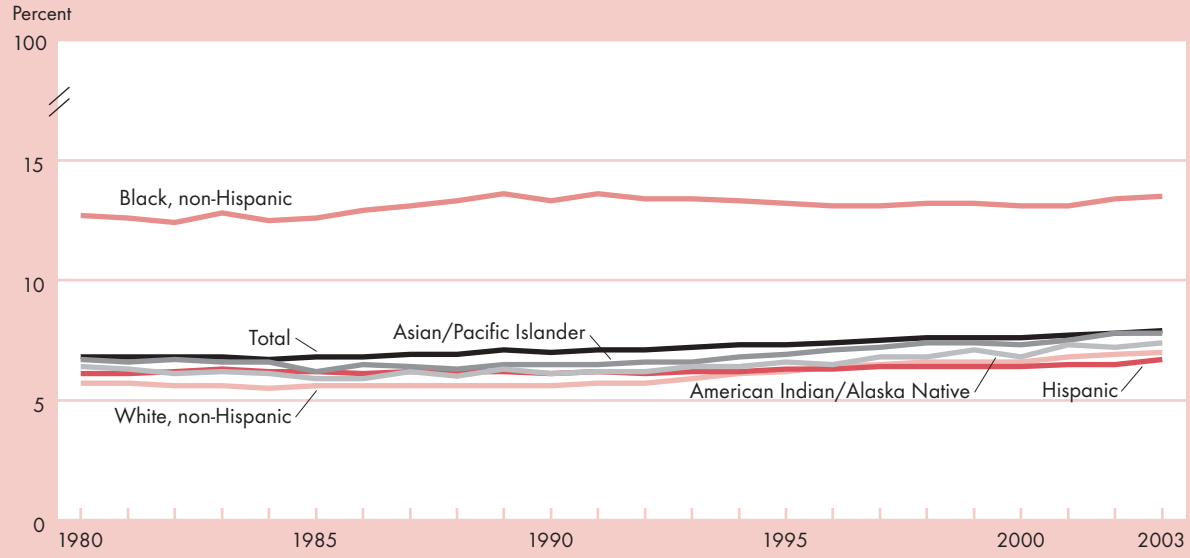
- In 2003, 81 percent of children ages 19–35 months had received the recommended combined series of vaccines (often referred to as the 4:3:1:3 combined series).
- Children with family incomes below the poverty level had lower rates of coverage with the combined series than children with family incomes at or above the poverty line—76 percent of children below poverty compared with 83 percent of higher-income children.
- Rates of coverage with the combined series of vaccines (4:3:1:3) were higher among White, non-Hispanic children than among Black, non-Hispanic or Hispanic children. Eighty-four percent of White, non-Hispanic children ages 19–35 months received these immunizations, compared with 75 percent of Black, non-Hispanic children and 79 percent of Hispanic children.
- For children overall, children living at or above the poverty level, and children living below the poverty level, coverage with the combined series remained relatively stable between 1999 and 2003; the gap in coverage between children living at or above and living below the poverty level remained relatively stable, as well.

Bullets contain references to data that can be found in Table HEALTH4 on pages 136–137.

Low Birthweight

Low-birthweight infants (infants born weighing less than 2,500 grams, or 5 lb. 8 oz.) are at higher risk of death or long-term illness and disability than are infants of normal birthweight.[76–78] Low birthweight results from an infant's being born preterm (before 37 weeks' gestation) or from being small for his or her gestational age.

Indicator HEALTH5 **Percentage of infants born with low birthweight by detailed mother's race and Hispanic origin, 1980–2003**



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

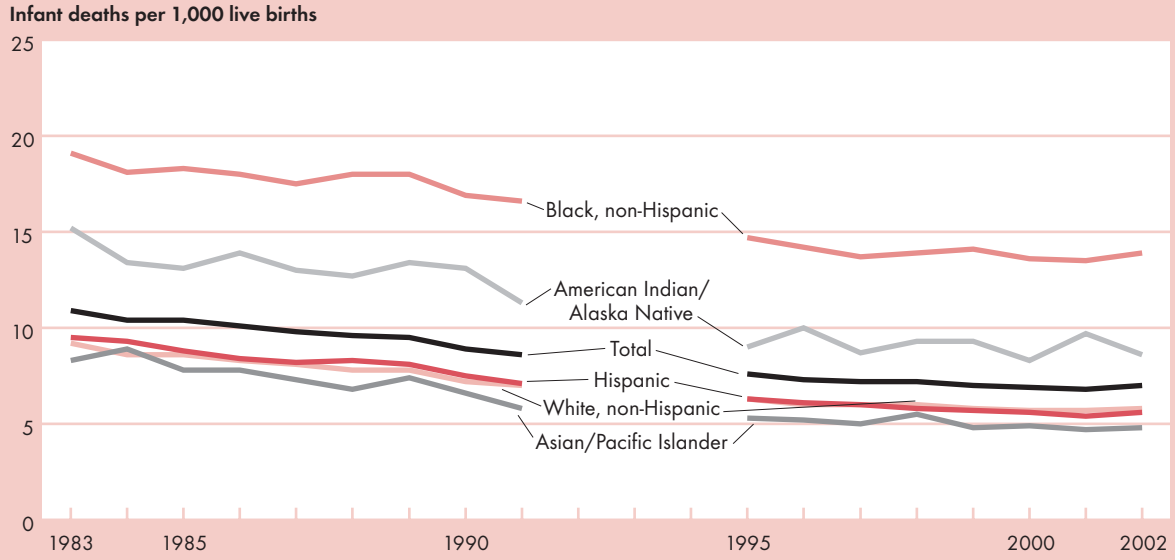
- The percentage of infants born with low birthweight was 7.9 in 2003, up from 7.7 percent in 2001 and 7.8 percent in 2002, and has increased slowly but steadily since 1984 (6.7 percent). The percentage for 2003 was the highest since 1972.[11,15]
- The percentage of low birthweight for Black, non-Hispanic infants is significantly higher than that of any other racial or ethnic group. From 1990 to 2003, the percentage of low birthweight among Black, non-Hispanic infants varied between 13.6 and 13.1 percent. Infants of other racial and ethnic groups also experienced increases between 1990 and 2003: among White, non-Hispanic infants the rate rose from 5.6 to 7.0, among Hispanic infants it rose from 6.1 to 6.7, among Asians/Pacific Islanders it rose from 6.5 to 7.8, and among American Indians/Alaska Natives it rose from 6.1 to 7.4.
- The percentage of low birthweight varies widely within Hispanic and Asian/Pacific Islander subgroups. Data for 2002 indicate that among Hispanic women, those of Mexican origin had the lowest percentage of low-birthweight infants (6.2 percent) and Puerto Ricans had the highest (9.7 percent). Among Asian/Pacific Islander subgroups, the percentage of low birthweight infants was lowest among women of Chinese origin (5.5 percent) and highest among women of Filipino origin (8.6 percent).
- About 1.4 percent of infants were born with very low birthweight (less than 1,500 grams, or 3 lb. 4 oz.) in each year from 1996 to 2003, up from 1.3 percent in each year from 1989 to 1995 and 1.2 percent in each year from 1981 to 1988.
- One reason for the recent increase in low birthweight is that the number of twin, triplet, and higher-order multiple births has increased.[11,15,77,78] Multiple births are much more likely than singletons to be of low birthweight; 55 percent of twins and 94 percent of triplets, compared with 6 percent of singletons, were of low birthweight in 2002. However, even among singletons, low birthweight has increased.[11]
- Changes in the obstetric management of pregnancy with increases in induction and cesarean delivery, a concomitant increase in preterm births, and an increase in the use of assisted reproductive technologies (ART) may have played a role in the low birthweight increase.[79]

Bullets contain references to data that can be found in Table HEALTH5 on page 138. Endnotes begin on page 73.

Infant Mortality

Infant mortality is defined as the death of an infant before his or her first birthday. Infant mortality is related to the underlying health of the mother, public health practices, socioeconomic conditions, and availability and use of appropriate health care for infants and pregnant women.[80] In the United States, about two-thirds of infant deaths occur in the first month after birth and are due mostly to health problems of the infant or the pregnancy, such as preterm delivery or birth defects.

Indicator HEALTH6 **Death rates among infants by detailed race and Hispanic origin of mother, 1983–2002**



NOTE: Data are available for 1983–1991 and 1995–2002 only.[81] Infant deaths are deaths before an infant's first birthday.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Linked Files of Live Births and Infant Deaths.

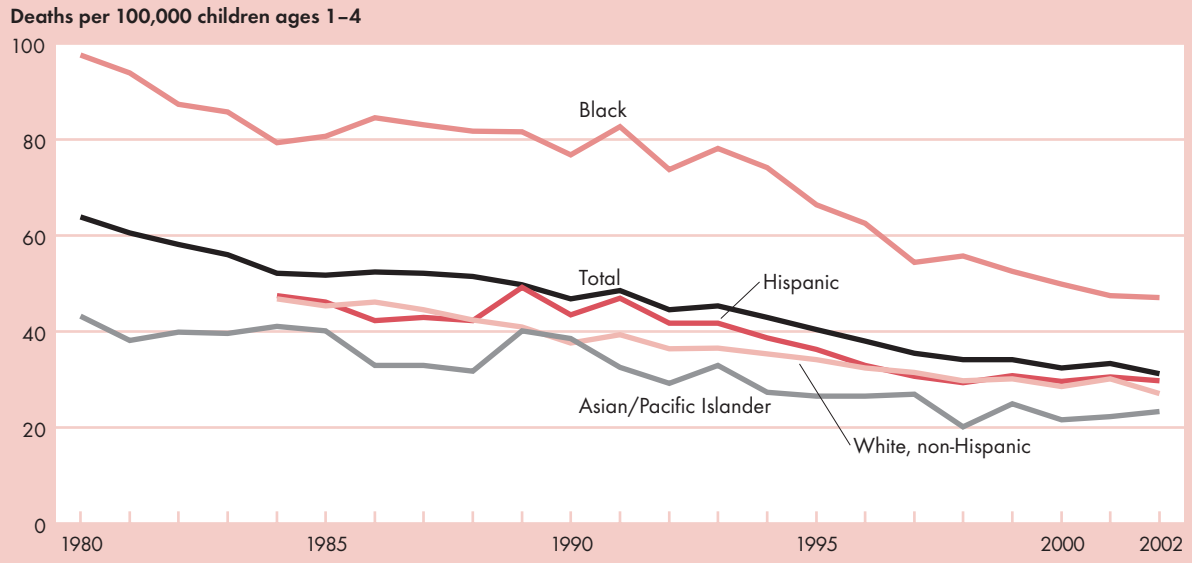
- The 2002 infant mortality rate for the United States was 7.0 deaths per 1,000 live births, an increase from the 2001 rate of 6.8. A special analysis showed that most of the increase was due to an increase in the number of infants weighing less than 750 grams, or about 1 lb. 10 oz., at birth.[79]
- Substantial racial and ethnic disparities continue. Black, non-Hispanic and American Indian/Alaska Native infants have consistently had a higher infant mortality rate than that of other racial or ethnic groups. For example, in 2002, the Black, non-Hispanic infant mortality rate was 13.9 infant deaths per 1,000 live births and the American Indian/Alaska Native rate was 8.6, both significantly higher than the rates among White, non-Hispanic (5.8), Hispanic (5.6), and Asian/Pacific Islander (4.8) infants.
- Infant mortality rates also vary within racial and ethnic populations. For example, among Hispanics in the United States, the infant mortality rate for 2002 ranged from 3.7 for infants of Cuban origin to a high of 8.2 for Puerto Rican infants. Among Asians/Pacific Islanders, infant mortality rates ranged from 3.0 for infants of Chinese origin to 9.6 for Hawaiian infants.

Bullets contain references to data that can be found in Table HEALTH6 on page 139. Endnotes begin on page 73.

Child Mortality

Child death rates are the most severe measure of ill health in children. These rates have generally declined over the past two decades. Deaths to children ages 1–4 are calculated separately from those for children ages 5–14 because causes and death rates vary substantially by age.

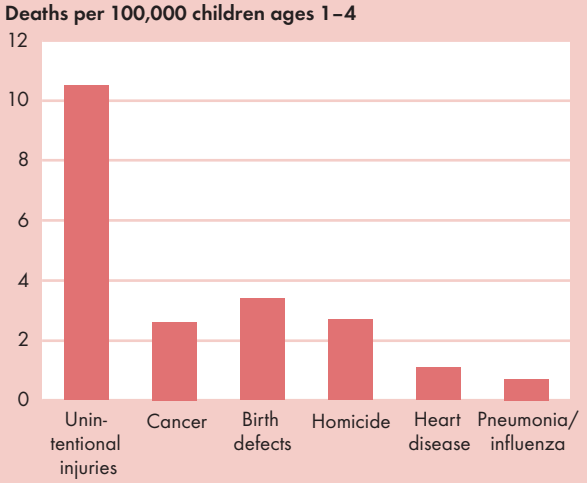
Indicator HEALTH7.A Death rates among children ages 1–4 by race and Hispanic origin, 1980–2002



NOTE: Death rates for American Indians/Alaska Natives are included in the total, but are not shown separately because the numbers of deaths were too small to calculate reliable rates.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Indicator HEALTH7.B Death rates among children ages 1–4 by cause of death, 2002

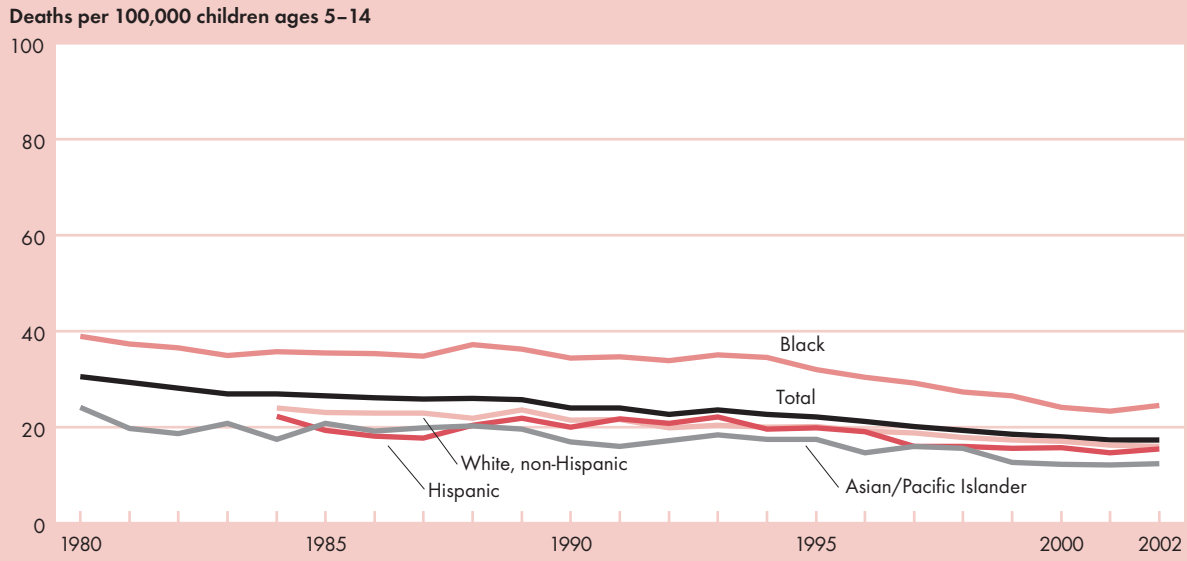


SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

- In 2002, the death rate for children ages 1–4 was 31 per 100,000 children.
- Between 1980 and 2002, the death rate declined by more than half for children ages 1–4.
- Among children ages 1–4, Black children had the highest death rate in 2002, at 47 per 100,000 children. Asian/Pacific Islander children had the lowest death rate, at 23 per 100,000.
- Among children ages 1–4, unintentional injuries (accidents) were the leading cause of death at 11 per 100,000, followed by birth defects, homicide, and cancer at 3 per 100,000 children each.
- Motor vehicle traffic crashes are the most common type of fatal injury among children. Use of child restraint systems, including safety seats and booster seats, can greatly reduce the number and severity of injuries to child occupants of motor vehicles. In 2002, 40 percent of child occupants ages 1–4 who died in crashes were unrestrained.[82]

Death rates for children ages 5–14 are lower than those for children under age 5. The leading cause of death for children ages 5–14 remains unintentional injuries, but some other causes of death, such as birth defects, are less common among children ages 5–14 than among children ages 1–4.

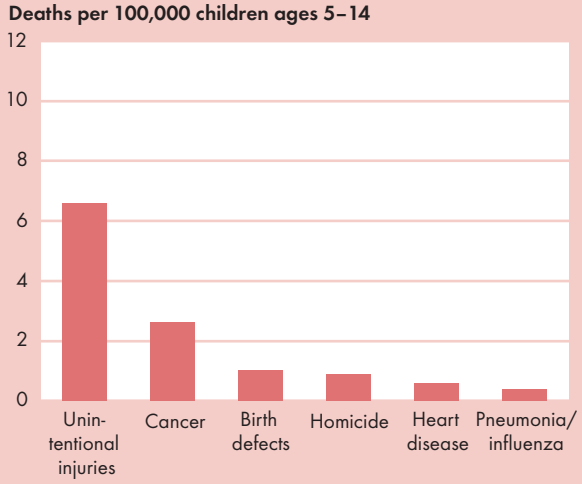
Indicator HEALTH7.C Death rates among children ages 5–14 by race and Hispanic origin, 1980–2002



NOTE: Death rates for American Indians/Alaska Natives are included in the total but not shown separately because the numbers of deaths were too small to calculate reliable rates.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

Indicator HEALTH7.D Death rates among children ages 5–14 by cause of death, 2002



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

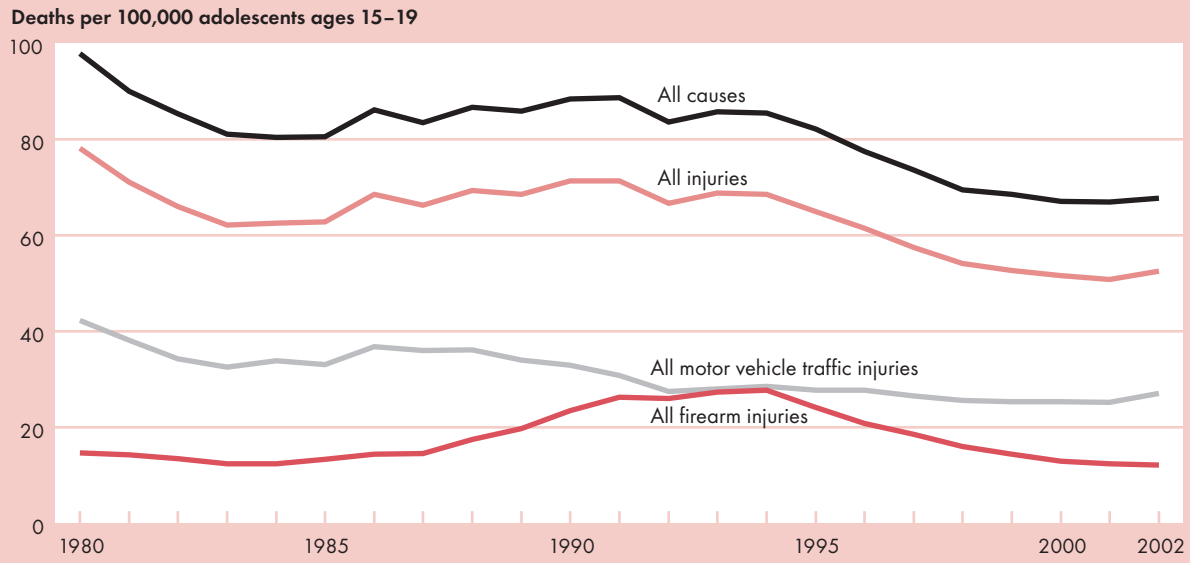
- The death rate in 2002 for children ages 5–14 was 17 per 100,000 children.
- Between 1980 and 2002, the death rate for children ages 5–14 declined by approximately 45 percent, from 31 to 17 deaths per 100,000.
- Similar to mortality patterns for children under the age of 5, among children ages 5–14, Black children had the highest death rate in 2002 at 25 deaths per 100,000, and Asians/Pacific Islanders had the lowest death rate at 12 per 100,000.
- Among children ages 5–14, unintentional injuries (accidents) were the leading cause of death at 7 per 100,000, followed by cancer (3 per 100,000), birth defects, and homicides (1 per 100,000 each).
- The majority of unintentional injury deaths among children ages 5–14 result from motor vehicle traffic crashes. In 2002, 45 percent of children ages 5–9 and 54 percent of children ages 10–14 who died as occupants in motor vehicle crashes were not wearing a seatbelt or other restraint.[82]

Bullets contain references to data that can be found in Tables HEALTH7.A and HEALTH7.B on pages 140–141. Endnotes begin on page 73.

Adolescent Mortality

Compared with younger children, adolescents ages 15–19 have much higher mortality rates. Adolescents are much more likely to die from injuries sustained from motor vehicle traffic accidents or firearms.[83] This difference illustrates the importance of looking separately at mortality rates and causes of death among teenagers ages 15–19.

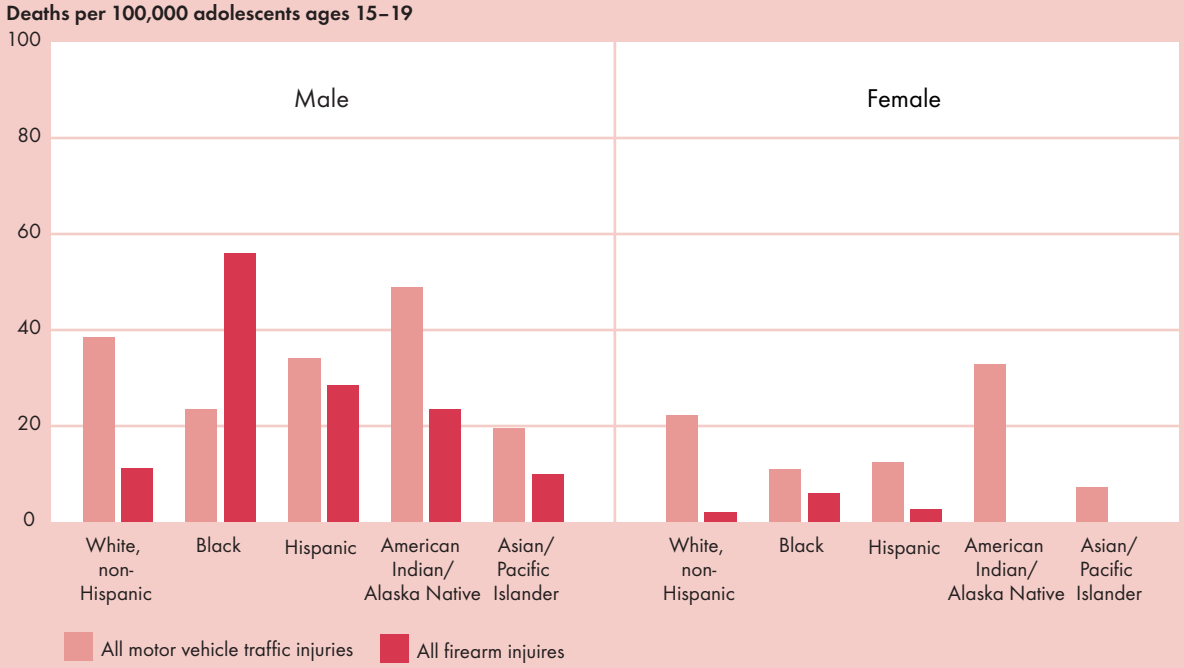
Indicator HEALTH8.A **Death rates among adolescents ages 15–19 by cause of death, 1980–2002**



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

- In 2002, the death rate for adolescents ages 15–19 was 68 deaths per 100,000 youth ages 15–19. Overall, the rate has declined substantially since 1980, despite a period of increase between 1986 and 1991. Injury, which includes homicide, suicide, and unintentional injuries (accidents), continues to account for more than 3 of 4 deaths among adolescents.[84]
- Injuries from motor vehicles and firearms are the leading mechanisms of injury death among adolescents. In 2002, motor vehicle traffic-related injuries accounted for 27 of the 68 deaths per 100,000 youth ages 15–19 (40 percent), while firearm injuries accounted for 12 of the 68 deaths per 100,000 youth ages 15–19 (18 percent).
- Motor vehicle injuries were the leading mechanisms of injury death among adolescents for each year between 1980 and 2002, but the motor vehicle death rate declined by more than one-third during the time period.
- In 1980, motor vehicle traffic-related deaths among adolescents ages 15–19 occurred almost three times as often as deaths from firearm injuries (intentional and unintentional). By 2002, the rate of motor vehicle traffic-related deaths was more than double that of deaths from firearm injuries.
- Motor vehicle traffic-related and firearm-related death rates have followed different trends since 1980. From 1980 to 1985, both rates declined; in the following years, however, the motor vehicle traffic death rate continued to decline modestly while the firearm death rate increased markedly. During the years 1992 to 1994, the two rates differed only slightly. However, since 1994, the firearm death rate has decreased by more than half, while the motor vehicle death rate has decreased only slightly.
- Most of the increase in firearm injury deaths between 1983 and 1993 resulted from an increase in homicides. The firearm homicide rate among youth ages 15–19 more than tripled from 5 to 18 per 100,000 between 1983 and 1993. At the same time, the firearm suicide rate rose from 5 to 7 per 100,000. From 1995 to 2002, the firearm homicide rate and the firearm suicide rate each declined by about 50 percent.
- After unintentional injuries, additional leading causes of death for adolescents include cancer, heart disease, and birth defects.[84]

Indicator HEALTH8.B Injury death rates among adolescents ages 15–19 by gender, race, Hispanic origin, and type of injury, 2002



NOTE: There were too few firearm deaths to calculate a reliable rate for American Indian/Alaska Native females and Asian/Pacific Islander females.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

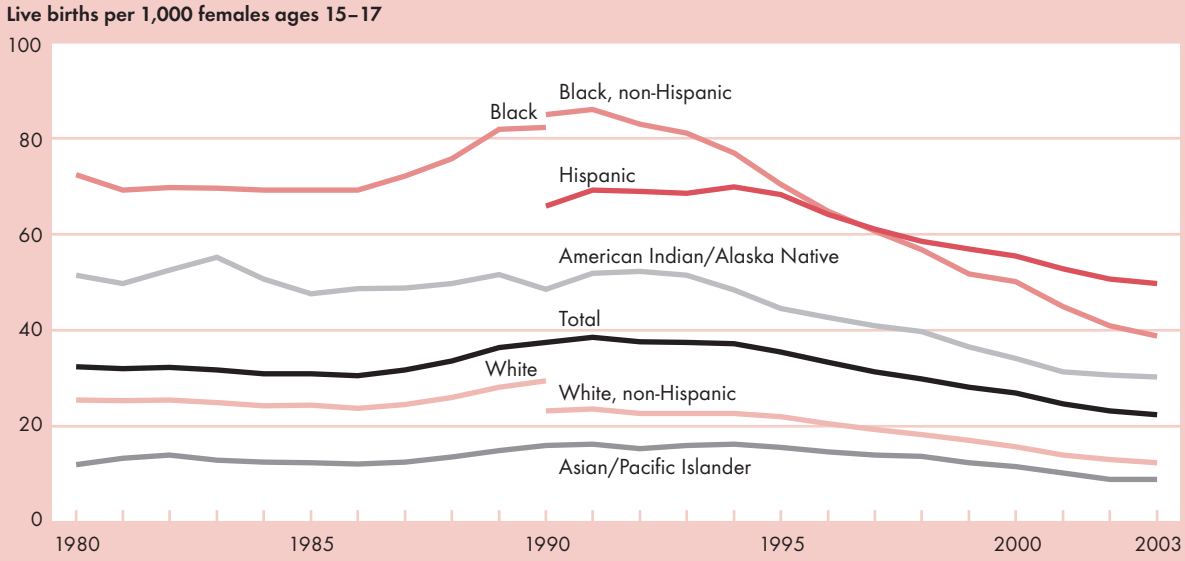
- Motor vehicle and firearm injury deaths are both more common among male than among female adolescents. In 2002, the motor vehicle traffic death rate for males was nearly twice the rate for females, and the firearm death rate among males was eight times that for females.[83]
- Among adolescents in 2002, motor vehicle injuries were the most common cause of death among all females, as well as among White, non-Hispanic, Hispanic, American Indian/Alaska Native, and Asian/Pacific Islander males. Firearm injuries were the most common cause of death among Black males. Black males were more than twice as likely to die from a firearm injury as from a motor vehicle traffic injury.
- Deaths from firearm suicides were more common than deaths from firearm homicides among White, non-Hispanic adolescent males, while the reverse was found for Black and Hispanic adolescent males.
- Deaths from firearm injuries among adolescents declined between 1995 and 2002, particularly among Black and Hispanic males. From 1995 to 2002, the firearm homicide rates for Black and Hispanic males declined substantially, from 101 to 48 per 100,000 for Black males, and from 47 to 22 per 100,000 for Hispanic males.

Bullets contain references to data that can be found in Table HEALTH8 on pages 142–143. 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 the other adverse socioeconomic circumstances that frequently accompany early childbearing.[85] 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.[11,14,76] 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 future employment prospects and earnings potential.[86] The birth rate of adolescents under age 18 is a measure of particular interest because the mothers are still of school age.

Indicator HEALTH9 **Birth rates for females ages 15–17 by race and Hispanic origin, 1980–2003**



NOTE: Rates for 1980–89 are calculated for all Whites and all Blacks. Rates for 1980–89 are not shown for Hispanics; White, non-Hispanics; or Black, non-Hispanics because information on the Hispanic origin of the mother was not reported on the birth certificates of most states.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

- In 2003, the adolescent birth rate was 22 per 1,000 young women ages 15–17. There were 134,617 births to these young women in 2003. The 2003 rate was a record low for the Nation.[11,15,16]
- The birth rate among adolescents ages 15–17 declined more than two-fifths, from 39 to 22 births per 1,000, between 1991 and 2003. This decline follows a one-fourth increase between 1986 and 1991.
- There were substantial racial and ethnic disparities in birth rates among adolescents ages 15–17. In 2003, the birth rate per 1,000 females for this age group was 9 for Asians/Pacific Islanders, 12 for White, non-Hispanics, 30 for American Indians/Alaska Natives, 39 for Black, non-Hispanics, and 50 for Hispanics.[15]
- The birth rate for Black, non-Hispanic females ages 15–17 dropped by more than half between 1991 and 2003, completely reversing the increase between 1986 and 1991. The birth rate for White, non-Hispanic teenagers declined by nearly half during 1991–2003.[11,15]
- The birth rate for Hispanics in this age group declined more modestly in the 1990s; the rate fell by more than one-fourth between 1991 and 2003.[15,16]
- In 2003, 90 percent of births to females ages 15–17 were to unmarried mothers, compared with 62 percent in 1980 (See POP7.B).
- The birth rates for first and second births for ages 15–17 declined by more than one-third and one-half, respectively, between 1991 and 2002.
- The pregnancy rate (the sum of births, abortions, and fetal losses per 1,000 females) declined by one-third for adolescents ages 15–17 during 1990–2000, reaching a record low of 54 per 1,000 in 2000. Rates for births, abortions, and fetal losses declined for these young adolescents in the 1990s through 2000.[16,87,88]

Bullets contain references to data that can be found in Table HEALTH9 on pages 144–145. and Table POP7.B on page 104. Endnotes begin on page 73.

Indicators Needed

Health

National indicators in several key dimensions of health are not yet available because of difficulty in definitions and measurement, particularly using survey research. The following health-related areas have been identified as priorities for indicator development by the Federal Interagency Forum on Child and Family Statistics:

- *Disability.* The Forum is very interested in developing an improved measure of functioning that can be derived from regularly collected data. Such a measure is often referred to as a disability measure. The difficulties inherent in developing such a measure relate to the fact that disability is a complicated, multidimensional concept. Many definitions of disability are currently in use by policy-makers and researchers, but there is little agreement regarding which aspects of functioning should be included or how they should be measured.
- *Mental health.* The need for an indicator of children's mental health has been recognized by the Forum since 1997. The 1999 U.S. Surgeon General's report on mental health, and, more recently, the report of the President's New Freedom Commission on Mental Health, drew national attention to mental health as an essential condition for children's development and well-being. For the first time, the 2005 *America's Children* presents a Special Feature on one aspect of children's mental health—children's emotional and behavioral difficulties as reported by their parent. This feature was developed through collaboration among experts from the National Institute of Mental Health, the Center for Mental Health Services in the Substance Abuse and Mental Health Services Administration, the National Center for Health Statistics, the National Center for Birth Defects and Developmental Disabilities, and an international panel of experts.
- *Child abuse and neglect.* Also needed are regular, reliable estimates of the incidence of child abuse and neglect that are based on sample surveys rather than administrative records. One estimate of child abuse and neglect was presented as a special feature in *America's Children, 1997.* Since administrative data are based on cases reported to authorities, it is likely that these data underestimate the magnitude of the problem. Estimates based on sample survey data could potentially provide more accurate information; however, a number of issues still persist, including how to effectively elicit this sensitive information, how to identify the appropriate respondent for the questions, and whether there is a legal obligation for the surveyor to report abuse or neglect.