

A young girl in a baseball cap and uniform is holding a bat. The background is an American flag. The image is overlaid with a semi-transparent orange filter.

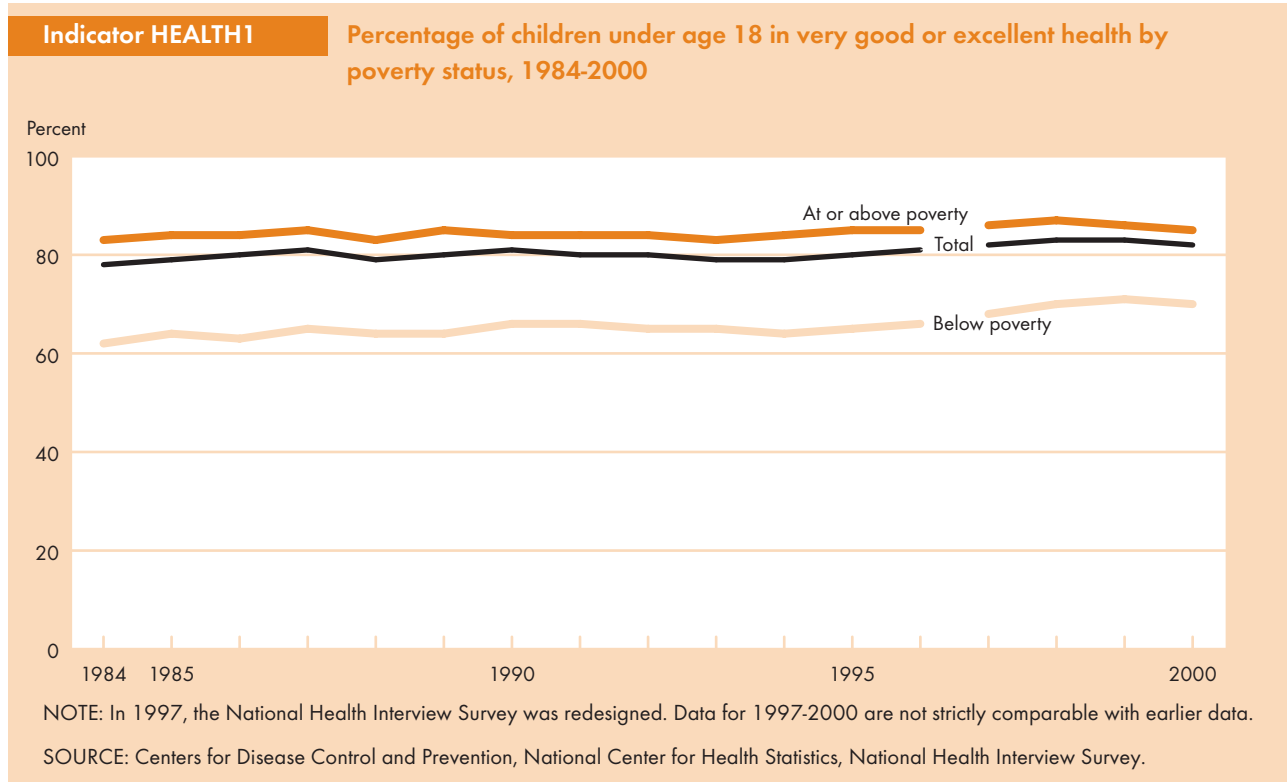
Indicators of Children's Well-Being

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, immunization rates, and rates of births to adolescents. Important measures for which data are not available include child abuse and neglect, mental health, and disability.

General Health Status

The health of children and youth is basic to their well-being and optimal 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.

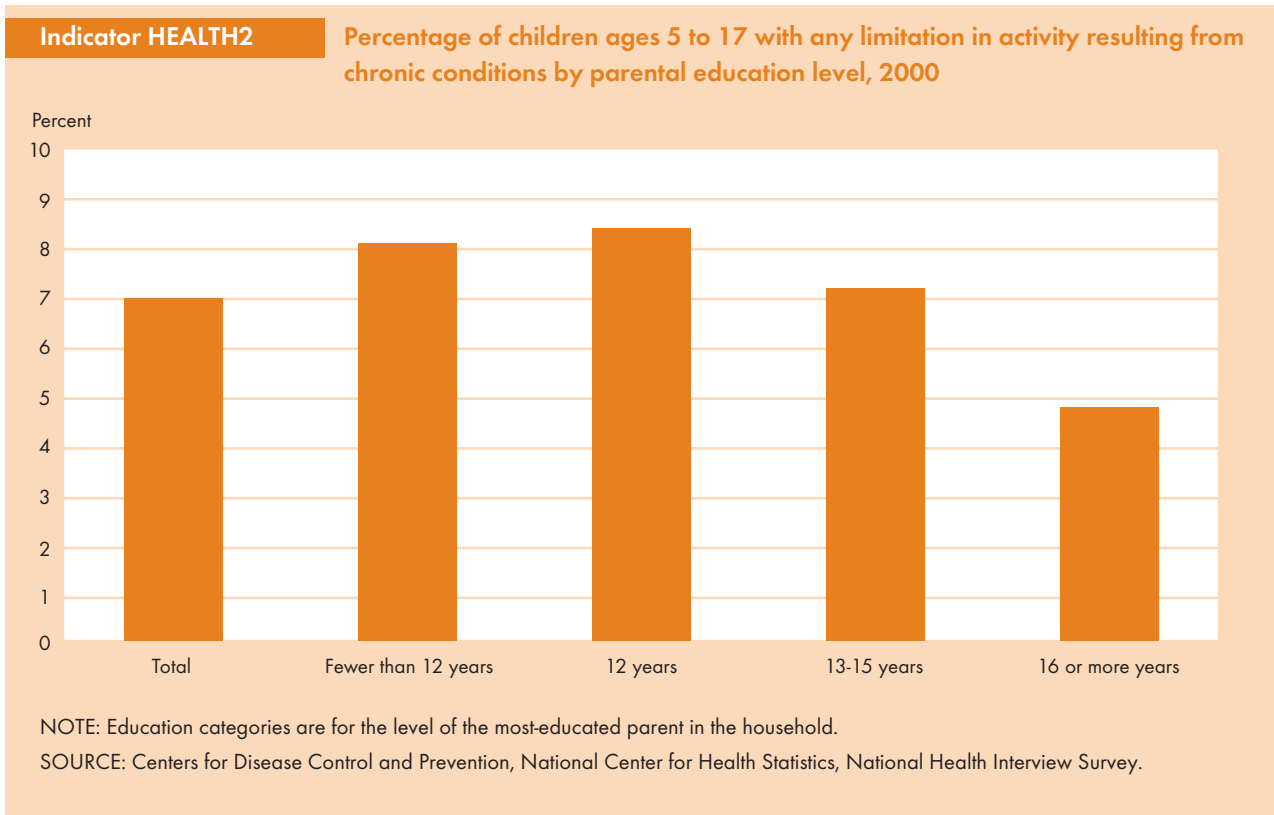


- In 2000, about 82 percent of children were reported by their parents to be in very good or excellent health.
- Children under age 5 are slightly more likely to be in very good or excellent health than are children ages 5 to 17 (85 and 81 percent, respectively).
- White, non-Hispanic children were more likely than black, non-Hispanic and Hispanic children to be in very good or excellent health. In 2000, 86 percent of white, non-Hispanic children were reported to be in very good or excellent health, compared with 74 percent of black, non-Hispanic children and 75 percent of Hispanic children.
- Child health varies by family income. Children living below the poverty line are less likely than children in higher-income families to be in very good or excellent health. In 2000, about 70 percent of children in families below the poverty line were in very good or excellent health, compared with 85 percent of children in families living at or above the poverty line.
- Each year, children at or above the poverty line were substantially more likely to be in very good or excellent health than were children whose families were below the poverty line. However, the health gap between children below and those at or above the poverty line decreased slightly between 1984 and 2000.

Bullets contain references to data that can be found in Table HEALTH1 on page 89. See indicator ECON1.A and ECON1.B on pages 16-17 for a description of child poverty.

Activity Limitation

Having chronic conditions can limit a child's ability to participate in activities such as going to school, playing, and any other activities of children. Children whose activities are limited by one or more chronic health conditions may need more specialized health care than children without such limitations. Their medical costs are generally higher; they are more likely to miss days from school; and they may require special education services.^{41,42} Chronic conditions (such as asthma, hearing impairment, or diabetes) included in this measure usually have a duration of more than 3 months.



- In 2000, 7 percent of children ages 5 to 17 were limited in their activities because of one or more chronic health conditions, compared with 3 percent of children younger than 5. Children and youth ages 5 to 17 have much higher rates of activity limitation than younger children, partly because some chronic conditions are not diagnosed until children enter school and because the number of activities that children participate in increases with age.
- Children and youth in families of lower socioeconomic status (as measured by parental education and family income) have significantly higher rates of activity limitation than children in higher-status families. Among children and youth ages 5 to 17, 8 percent of children whose parents had less than a high school education had activity limitations due to chronic conditions in 2000, compared with 5 percent of children living with at least one parent who finished college.
- The difference in activity limitation by socioeconomic status is also present among preschool-age children. Children under age 5 in families below poverty had a higher rate of activity limitation than children in families at or above poverty.
- Males ages 5 to 17 were more likely than females in the same age group to have activity limitations (9 percent of boys compared with 5 percent of girls in 2000).

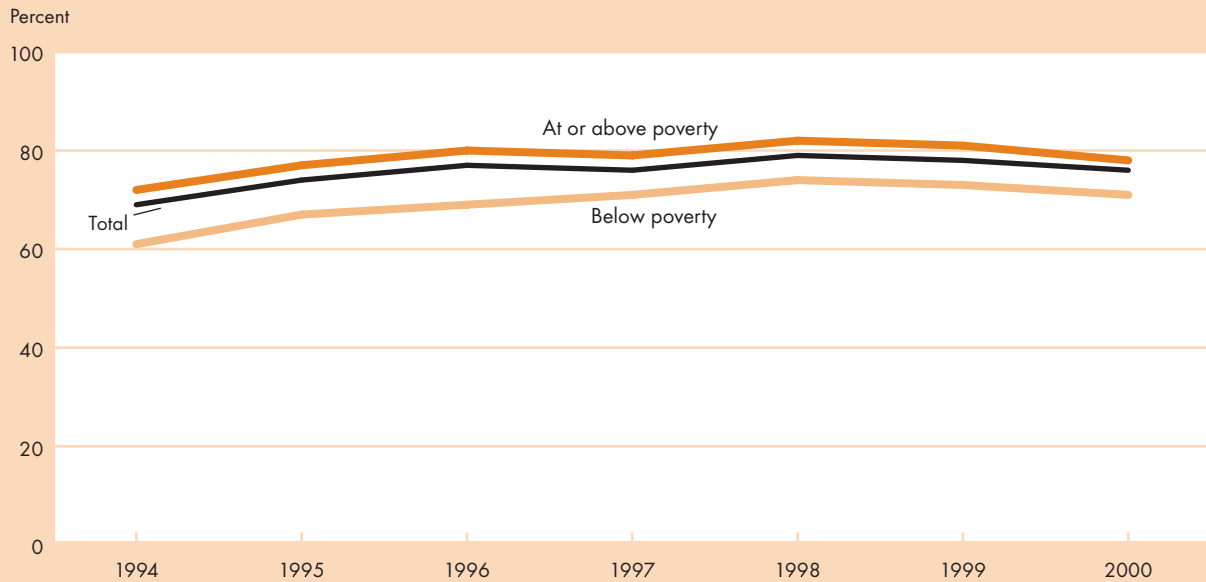
Bullets contain references to data that can be found in Table HEALTH2 on page 90. Endnotes begin on page 59.

Childhood Immunization

Adequate immunization protects children against several diseases that killed or disabled children in past decades. 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 HEALTH3

Percentage of children ages 19 to 35 months with the 4:3:1:3 combined series of vaccinations by poverty status, 1994-2000



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 2000, 76 percent of children ages 19 to 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—71 percent of children below poverty compared with 78 percent of higher-income children.
- Rates of coverage with the full series of vaccines (4:3:1:3) were higher among white, non-Hispanic children than among black, non-Hispanic or Hispanic children. Seventy-nine percent of white, non-Hispanic children ages 19 to 35 months received these immunizations compared with 71 percent of black, non-Hispanic children and 73 percent of Hispanic children.
- Overall and for children living above and below the poverty level, coverage with the combined series remained relatively stable between 1999 and 2000, as

did the gap in coverage between children in families living above and below the poverty level.

- Coverage with three or more doses of Hib vaccine among children ages 19 to 35 months remained relatively stable at 93 percent.
- In addition to the combined series of vaccines, there are other important immunizations such as those for Hib and varicella (chicken pox). Coverage with three or more doses of hepatitis B vaccine among children ages 19 to 35 months increased from 88 percent in 1999 to 90 percent in 2000.
- Coverage with varicella (chicken pox) vaccine among children ages 19 to 35 months continued to increase from 58 percent in 1999 to 68 percent in 2000. Gains in coverage for varicella vaccine were seen among all children regardless of race or ethnicity and poverty level; however, children living at or above the poverty line had higher coverage levels.

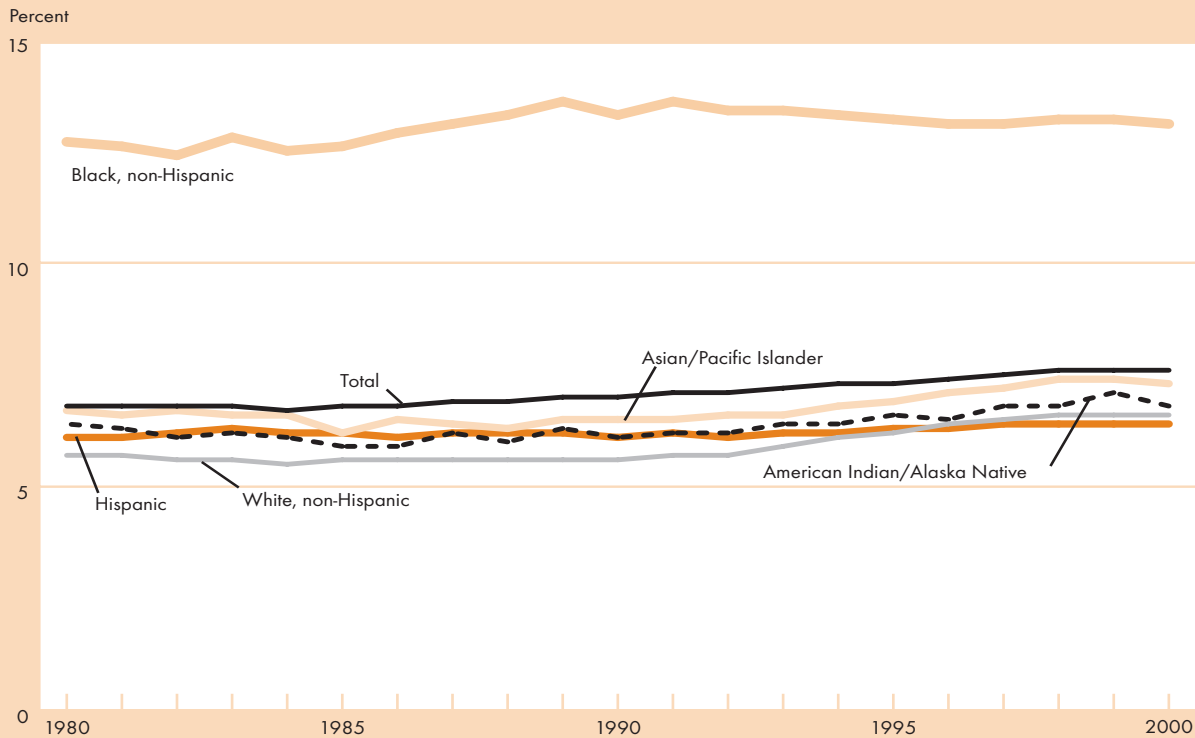
Bullets contain references to data that can be found in Table HEALTH3 on page 91.

Low Birthweight

Low-birthweight infants (infants born weighing less than 2,500 grams, or about 5.5 pounds) are at higher risk of death or long-term illness and disability than are infants of normal birthweight.^{43,44} 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 HEALTH4

Percentage of infants born of low birthweight by mother's race and Hispanic origin, 1980-2000



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

- The percentage of infants born of low birthweight was 7.6 from 1998-2000, up slightly from 7.5 percent in 1997. The low-birthweight rate has increased slowly but steadily since 1984. The rate from 1998-2000 was the highest since 1973.^{5,13}
- The low-birthweight rate for black, non-Hispanic infants declined during the 1990s, to 13.1 percent in 1996-97, before rising slightly to 13.2 percent in 1998-99 and returning to 13.1 percent in 2000. The rate was still higher than levels reported for the early to mid-1980s. The low-birthweight rate rose for white, non-Hispanic infants, from 5.6 percent in 1990 to 6.6 percent in 1998-2000. Low birthweight among Hispanic infants remained at 6.4 percent from 1997 through 2000. The rate of low birthweight for American Indian/Alaska Native infants fell back to 6.8 percent in 2000, the same rate as in 1997-98, and the overall rate for Asian/Pacific Islander infants declined slightly to 7.3 percent in 2000, compared with 7.4 percent in 1998 and 1999.
- The percentage of low-birthweight births varies widely within Hispanic and Asian/Pacific Islander subgroups. Data for 2000 indicate that among Hispanics, women of Mexican origin had the lowest percentage of low-birthweight infants (6.0 percent) and Puerto Ricans the highest (9.3 percent). Among Asian/Pacific Islander subgroups, low birthweight was lowest for births to women of Chinese origin (5.1 percent) and highest for women of Filipino origin (8.5 percent).
- About 1.4 percent of infants were born with very low birthweight (less than 1,500 grams) in each year from 1996-2000, up from 1.3 percent in each year from 1989-95 and 1.2 percent in each year from 1981-88.
- One reason for the increase in low birthweight over the past several years is that the number of twin, triplet, and higher-order multiple births has increased.^{5,13,44,45} Twins and other multiples are much more likely than singleton infants to be of low birthweight; 55 percent of twins and 93 percent of triplets, compared with 6 percent of singletons, were of low birthweight in 2000. However, even among singletons, there has been an increase in low birthweight.^{5,13}

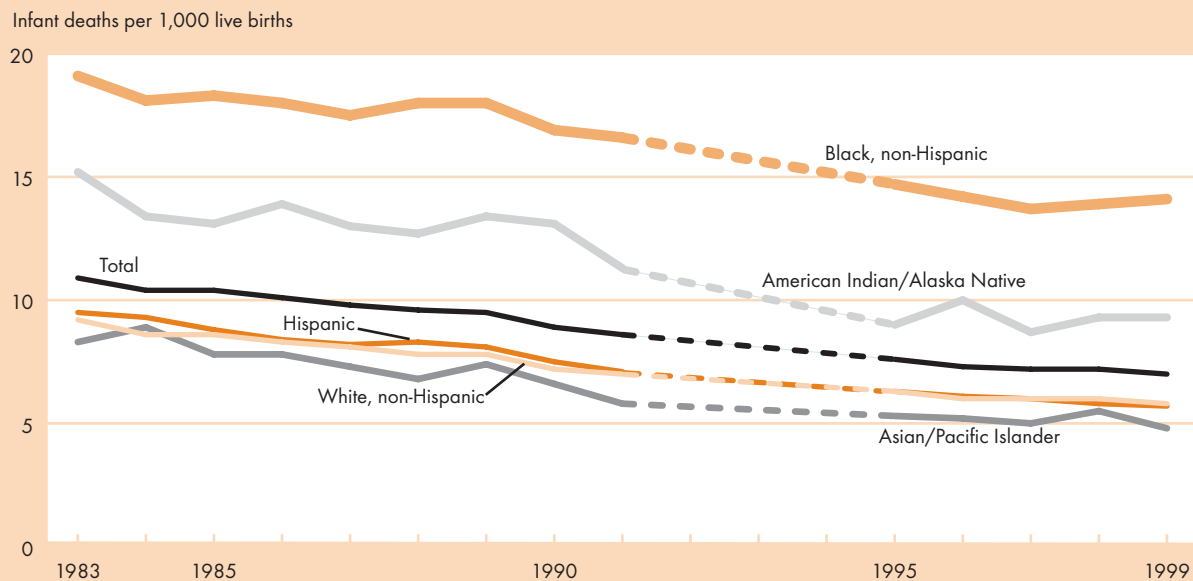
Bullets contain references to data that can be found in Table HEALTH4 on page 92. Endnotes begin on page 59.

Infant Mortality

Infant mortality is defined as the death of an infant before his or her first birthday. The infant mortality rate is an important measure of the well-being of infants, children, and pregnant women because it is associated with a variety of factors, such as maternal health, quality of access to medical care, socioeconomic conditions, and public health practices.⁴⁶ 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. About one-third of infant deaths occur after the first month and may be influenced by social or environmental factors, such as exposure to cigarette smoke or access to health care.⁴⁷

Indicator HEALTH5

Infant mortality rates by race and Hispanic origin, selected years 1983-99



NOTE: Data are available for 1983-91 and 1995-99.⁴⁸ Infant deaths are deaths before the child's first birthday.

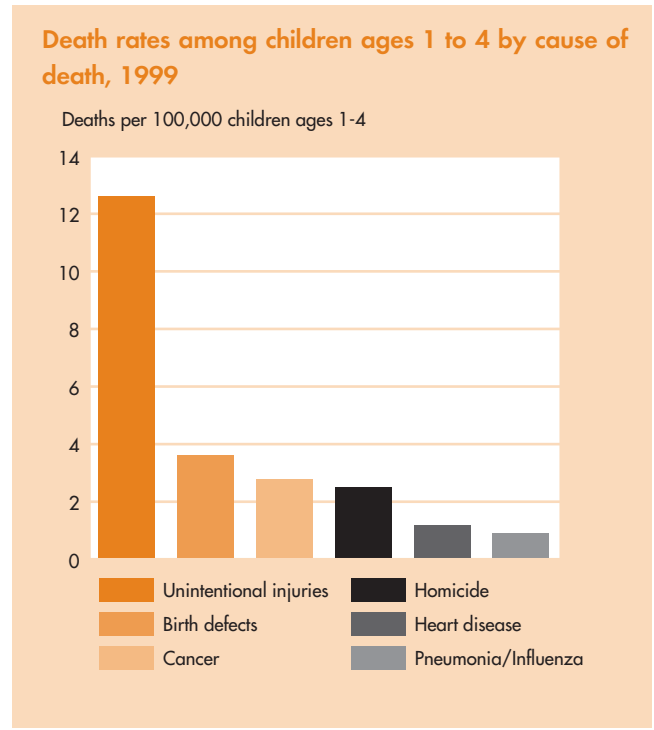
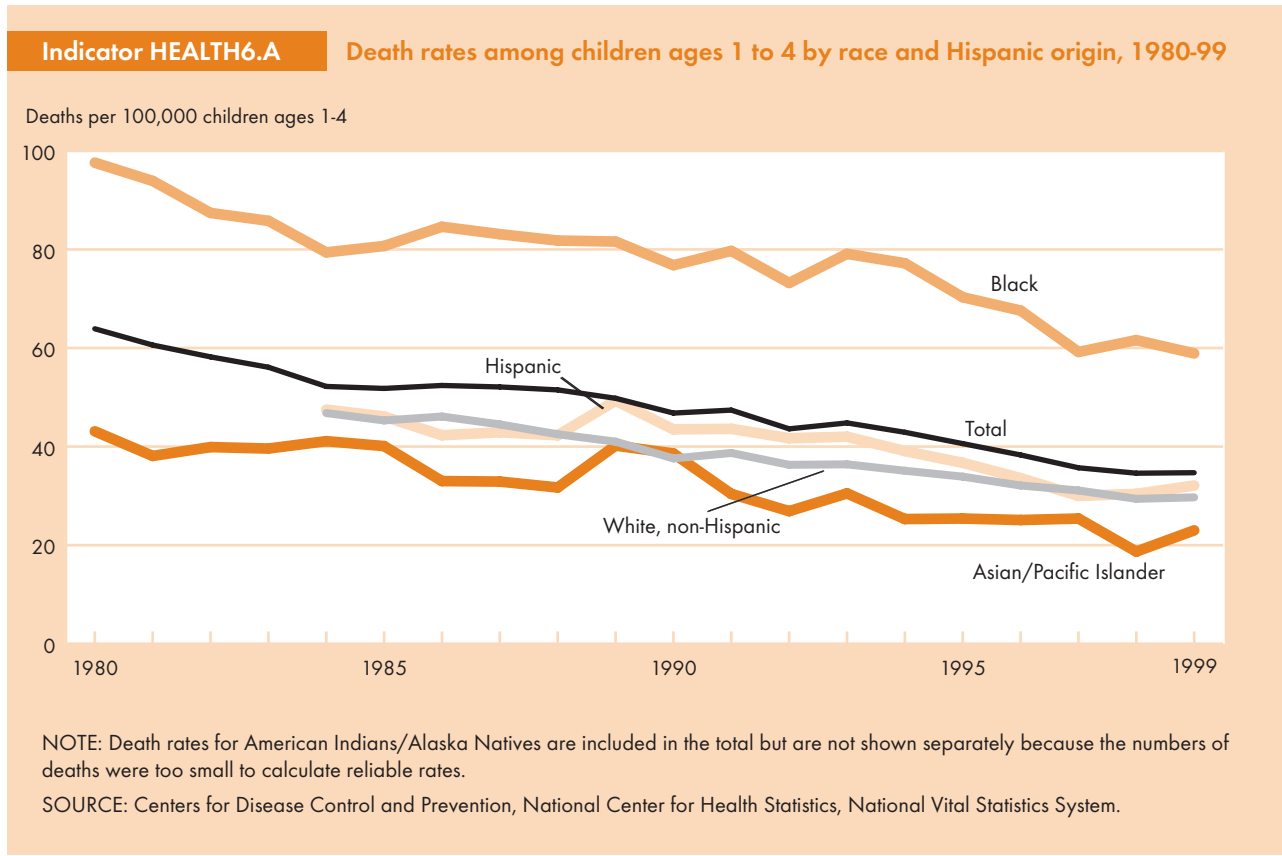
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Linked File of Live Births and Infant Deaths.

- The 1999 infant mortality rate for the United States was 7.0 deaths per 1,000 live births, a slight drop from the 1998 rate of 7.2.
- While infant mortality rates decreased for white, non-Hispanic, Hispanic, and Asian/Pacific Islander infants in 1999, the rate remained the same for American Indian/Alaska Native infants, and increased for black, non-Hispanic infants.
- Infant mortality has dropped for all racial and ethnic groups since 1983, but substantial racial and ethnic disparities remain. Black, non-Hispanic infants have consistently had a higher infant mortality rate than that of other race or ethnic groups. In 1999, the black, non-Hispanic infant mortality rate was 14.1 infant deaths per 1,000 live births and the American Indian/Alaska Native rate was 9.3, both significantly higher than the white, non-Hispanic rate of 5.8, the rate of 5.7 among Hispanic infants, or the rate of 4.8 among Asian/Pacific Islander infants.
- Infant mortality rates also vary within race and ethnic populations. For example, among Hispanics in the United States, the infant mortality rate ranged from 4.7 for infants of Cuban and Central/South American origins to a high of 8.3 for Puerto Ricans. Among Asians/Pacific Islanders, infant mortality rates ranged from 2.9 for infants of Chinese origin to 7.1 for Native Hawaiians.

Bullets contain references to data that can be found in Table HEALTH5 on page 93. Endnotes begin on page 59.

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 to 4 are calculated separately from those for children ages 5 to 14 because causes and death rates vary substantially by age.



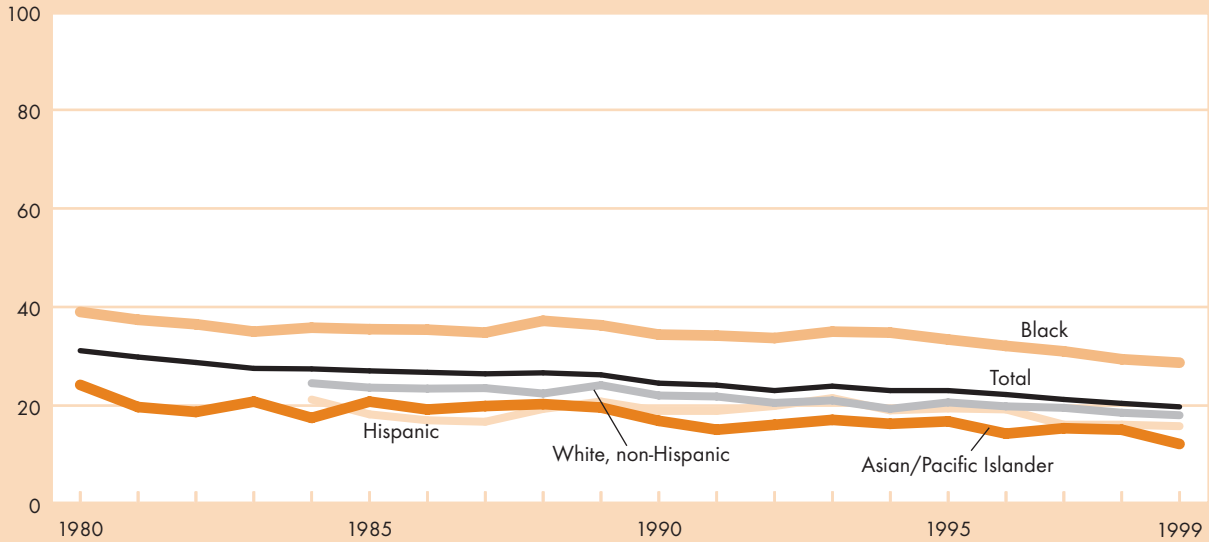
- In 1999, the death rate for children ages 1 to 4 was 35 per 100,000 children.
- Between 1980 and 1999, the death rate declined by almost half for children ages 1 to 4.
- Among children ages 1 to 4, black children had the highest death rate in 1999, at 59 per 100,000 children. Asian/Pacific Islander children had the lowest death rate, at 23 per 100,000.
- Among children ages 1 to 4, unintentional injuries were the leading cause of death at 13 per 100,000, followed by birth defects at 4 per 100,000 and cancer at 3 per 100,000 children.
- Most unintentional injury deaths among children result from motor vehicle traffic crashes. Use of child restraint systems, including safety seats, booster seats, and seat belts, can greatly reduce the number and severity of injuries to child occupants of motor vehicles. In 1999, 47 percent of child occupants ages 1 to 4 who died in crashes were unrestrained.⁴⁹

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

Indicator HEALTH6.B

Death rates among children ages 5 to 14 by race and Hispanic origin, 1980-99

Deaths per 100,000 children ages 5-14

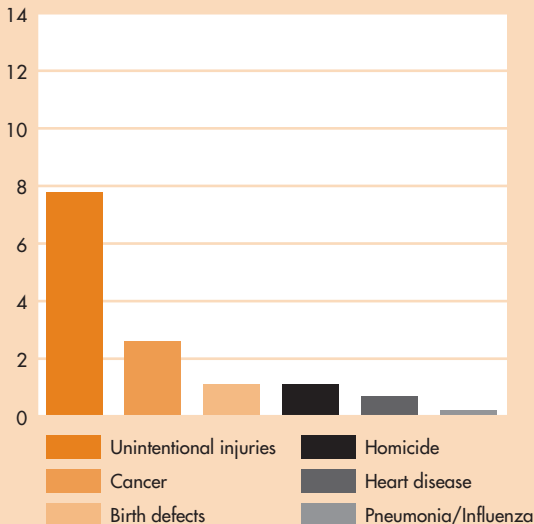


NOTE: Death rates for American Indians/Alaska Natives are included in the total but not shown separately because the numbers of deaths were too small to calculate reliable rates.

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

Death rates among children ages 5 to 14 by cause of death, 1999

Deaths per 100,000 children ages 5-14



- The death rate in 1999 for children ages 5 to 14 was 19 per 100,000 children.
- Between 1980 and 1999, the death rate declined by almost one-third, from 31 to 19 deaths per 100,000 children ages 5 to 14.
- Similar to mortality patterns for children under the age of 5, among children ages 5 to 14, black children had the highest death rates in 1999 at 29 deaths per 100,000, and Asians/Pacific Islanders had the lowest death rate at 12 per 100,000.
- Among children ages 5 to 14, unintentional injuries were the leading cause of death, followed by cancer, birth defects, and homicides.
- The majority of unintentional injury deaths among children ages 5 to 14 result from motor vehicle traffic crashes. More than 65 percent of children ages 5 to 14 who died in traffic crashes in 1999 were not wearing a seatbelt or other restraint.⁴⁹

Bullets contain references to data that can be found in Tables HEALTH6.A and HEALTH6.B on pages 94-95. Endnotes begin on page 59.

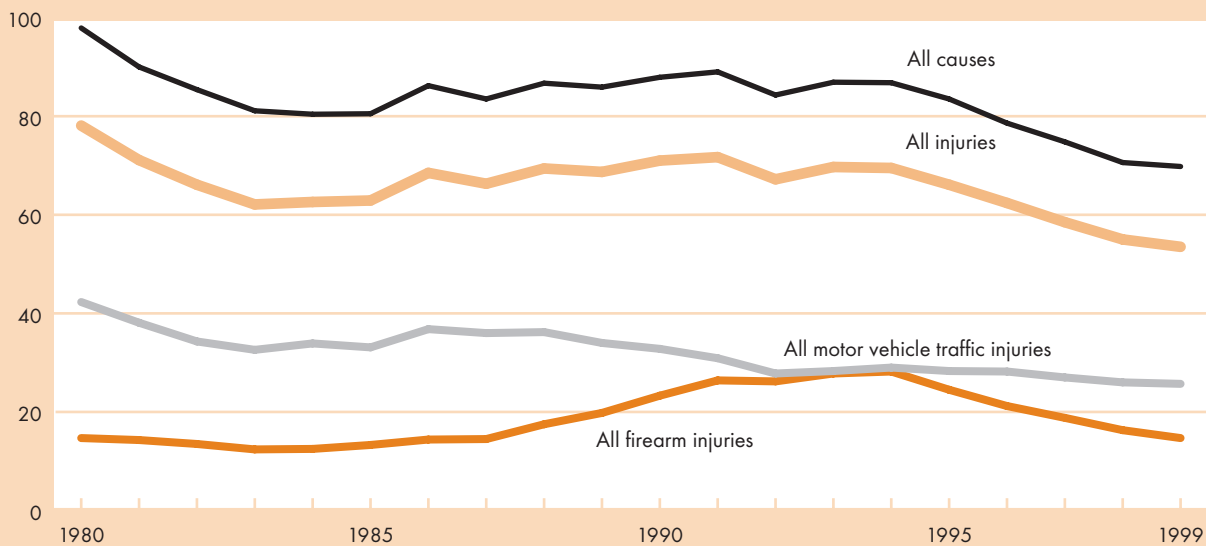
Adolescent Mortality

Compared with younger children, adolescents ages 15 to 19 have much higher mortality rates. Adolescents are much more likely to die from injuries sustained from motor vehicle traffic accidents or firearms.⁵⁰ This difference illustrates the importance of looking separately at mortality rates and causes of death among teenagers ages 15 to 19.

Indicator HEALTH7.A

Death rates among adolescents ages 15 to 19 by cause of death, 1980-99

Deaths per 100,000 adolescents ages 15-19



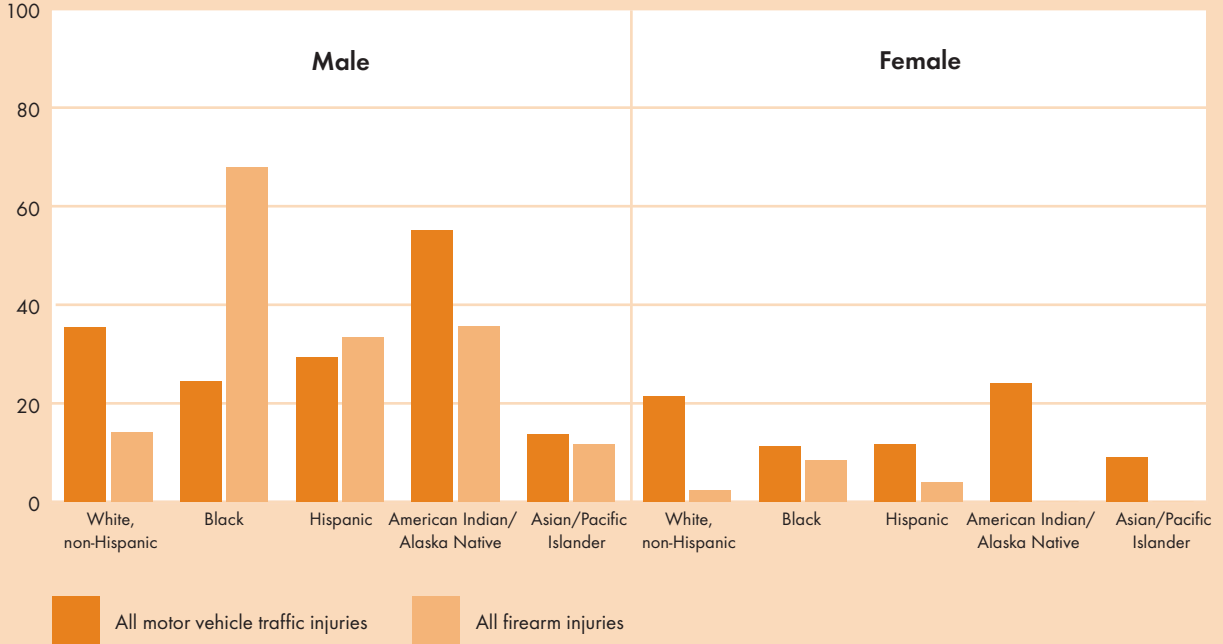
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

- In 1999, the death rate for adolescents ages 15 to 19 was 70 deaths per 100,000. After increasing to 89 per 100,000 in 1991, the rate declined and continues to be substantially lower than the rate in 1980. Injury, which includes homicide, suicide, and unintentional injuries, continues to account for over 3 out of 4 deaths among adolescents.
- Injuries from motor vehicles and firearms are the primary causes of death among youth ages 15 to 19. Motor vehicle traffic-related injuries accounted for 37 percent of deaths in this age group in 1999, while injuries from firearms accounted for 21 percent.
- Motor vehicle injuries were the leading cause of death among adolescents for each year between 1980 and 1998, but the motor vehicle death rate declined by over one-third during the time period.
- In 1980, motor vehicle traffic-related deaths among adolescents ages 15 to 19 occurred almost three times as often as firearm injuries (intentional and unintentional). By 1999, motor vehicle traffic-related deaths were less than double that of firearm injuries.
- Motor vehicle traffic-related and firearm 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 1992-94, the two rates differed only slightly. However, since 1994, the firearm death rate has decreased by nearly half while the motor vehicle death rate has decreased only slightly.
- Most of the increase in firearm injury deaths between 1985 and 1993 resulted from an increase in homicides. The firearm homicide rate among youth ages 15 to 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 1994 to 1999, the firearm homicide rate declined by over one-half and the firearm suicide rate declined by nearly one-third.
- After injuries, additional leading causes of death for adolescents include cancer, heart disease, and birth defects.¹³

Indicator HEALTH7.B

Injury death rates among adolescents ages 15 to 19 by gender, race, Hispanic origin, and type of injury, 1999

Deaths per 100,000 adolescents ages 15-19



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 were both more common among male than among female adolescents. In 1999, the motor vehicle traffic death rate for males was nearly twice the rate for females, and the firearm death rate among males was seven times that for females.
- Among adolescents in 1999, motor vehicle injuries were the most common cause of death among all females, as well as among white, non-Hispanic, American Indian/Alaska Native, and Asian/Pacific Islander males. Firearm injuries were the most common cause of death among black and Hispanic males. Black males were over 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 adolescents and American Indian/Alaska Native adolescents.

- Deaths from firearm injuries among adolescents declined between 1994 and 1999, particularly among black and Hispanic males. From 1994 to 1999, the firearm homicide rates for Hispanic and black adolescent males declined substantially, from 131 to 57 per 100,000 for black males, and from 55 to 26 per 100,000 for Hispanic males.

Bullets contain references to data that can be found in Table HEALTH7 on pages 96-97. Endnotes begin on page 59.

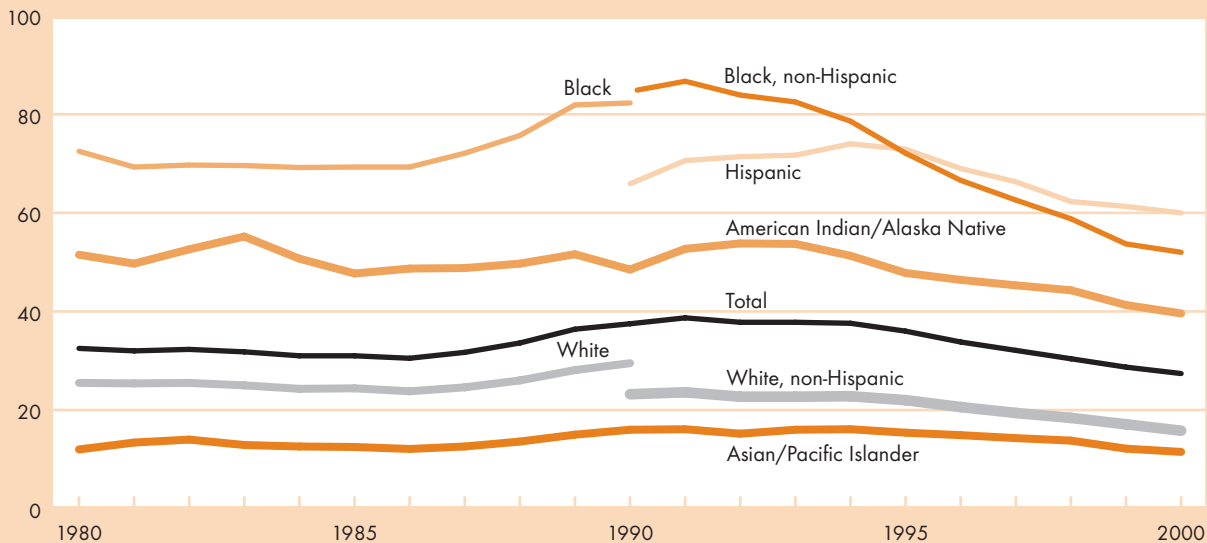
Adolescent Births

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.⁵¹ 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.^{5,8,13,43} 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.⁵² The birth rate of adolescents under age 18 is a measure of particular interest because the mothers are still of school age.

Indicator HEALTH8

Birth rates for females ages 15 to 17 by race and Hispanic origin, 1980-2000

Live births per 1,000 females ages 15-17



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 2000, the adolescent birth rate was 27 per 1,000 young women ages 15 to 17. There were 157,209 births to these young women in 2000. The 2000 rate was a record low for the Nation.^{5,13}
- The birth rate among adolescents ages 15 to 17 declined nearly one-third, from 39 to 27 births per 1,000, between 1991 and 2000. This decline follows a one-fourth increase between 1986 and 1991. The 2000 rate was a record low for young adolescents.⁵
- There are substantial racial and ethnic disparities in birth rates among adolescents ages 15 to 17. In 2000, the birth rate for this age group was 12 per 1,000 for Asians/Pacific Islanders, 16 for white, non-Hispanics, 40 for American Indians/Alaska Natives, 52 for black, non-Hispanics, and 60 for Hispanics.
- The birth rate for black, non-Hispanic females ages 15 to 17 dropped by two-fifths between 1991 and 2000, completely reversing the increase from 1986 to 1991. The birth rate for white, non-Hispanic teens declined by one-third during 1991-2000.

In contrast, the birth rate for Hispanics in this age group did not begin to decline until after 1994; the rate fell by nearly one-fifth from 1994 to 2000.

- In 2000, 88 percent of births to females ages 15 to 17 were to unmarried mothers, compared with 62 percent in 1980 (See table POP6.B).
- The steepest decline in birth rates for ages 15 to 17 in the mid to late 1990s was for first births, which accounted for four-fifths of births to adolescents. Earlier in the decade, declines were much greater for second births to adolescents.^{5,13,53}
- The pregnancy rate (the sum of births, abortions, and fetal losses per 1,000) declined by one-fifth for adolescents ages 15 to 17 during 1990-97, reaching a record low of 64 per 1,000 in 1997. Rates for births, abortions, and fetal losses declined for young adolescents in the 1990s.⁵⁴

Bullets contain references to data that can be found in Table HEALTH8 on page 98 and Table POP6.B on page 74. Endnotes begin on page 59.

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. Disability is best thought of as an umbrella term that includes pathology, impairment, functional limitations, task limitations, and activity limitations as well as characteristics of the environment which can be either a barrier or a support to the activity of the individual. The measurement of functioning and disability in children is critically important, and the Forum is working on determining which aspects of disability should be reported in this volume, and on developing indicators that address these core aspects of health-related well-being.
- *Mental health.* An international panel of experts in the area of children's mental health has been working with staff at the National Institute of Mental Health, the Center for Mental Health Services in the Substance Abuse and Mental Health Services Administration, and Forum agencies to determine data needs and develop better measures to obtain data on children's mental health. As a result of this collaborative effort, new questions were recently added to the National Center for Health Statistics' annual National Health Interview Survey. Some data have been collected, and plans are being made to evaluate the data and conduct a validity study. These data may be available in 2003.
- *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.