



Physical Environment and Safety

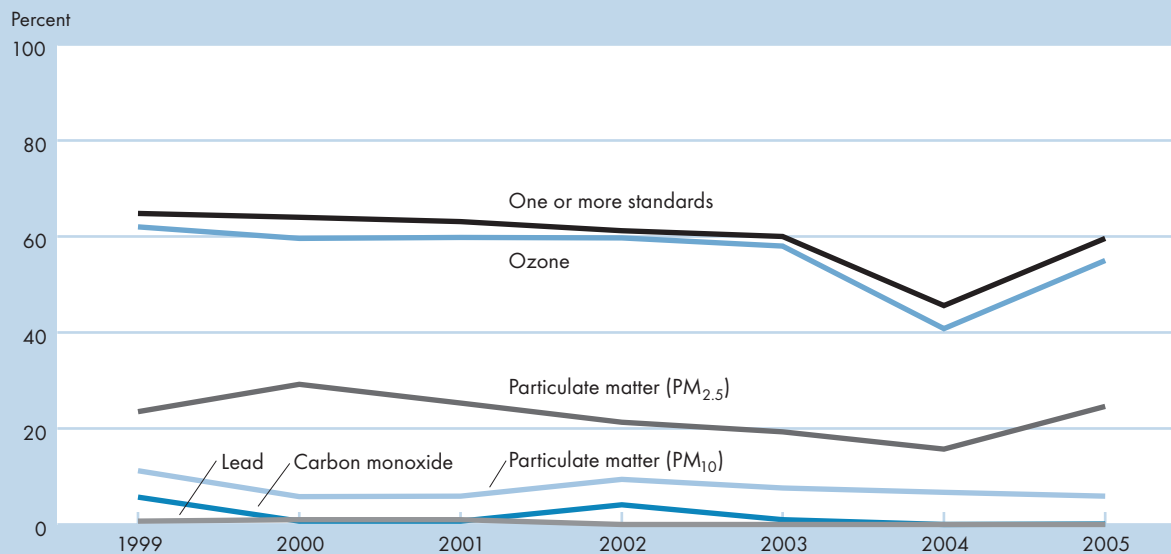
The physical environment in which children live plays a role in their health, development, and safety. This section presents indicators on how environmental conditions such as outdoor and indoor air quality, drinking water quality, and exposure to lead may affect children. In addition, indicators of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

Outdoor and Indoor Air Quality

The environment in which children live plays an important role in their health and development. Children may be more vulnerable than adults to the adverse effects of environmental contaminants in air, food, drinking water, and other sources because their bodies are still developing. In addition, children have increased potential for exposure to pollutants because they eat, drink, and breathe more, in proportion to the size of their bodies, than adults. One important measure of children's environmental health is the percentage of children living in areas in which the Primary National Ambient Air Quality Standards are exceeded.⁵⁵ These standards, established by the U.S. Environmental Protection Agency under the Clean Air Act, are designed to protect public health, including the health of susceptible populations such as children and individuals with asthma. Ozone, particulate matter, sulfur dioxide, and nitrogen dioxide are air pollutants associated with increased asthma episodes and other respiratory illnesses.^{56,57,58,59} Lead can affect the development of the central nervous system in young children,⁶⁰ and exposure to carbon monoxide can reduce the capacity of blood to carry oxygen.⁶¹

Indicator PHY1.A

Percentage of children ages 0–17 living in counties in which levels of one or more air pollutants rose above allowable levels, 1999–2005



NOTE: The U.S. Environmental Protection Agency has set national air quality standards for six principal pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). Nitrogen dioxide and sulfur dioxide are not included in the graph because all areas meet the Primary National Ambient Air Quality Standards for these pollutants.

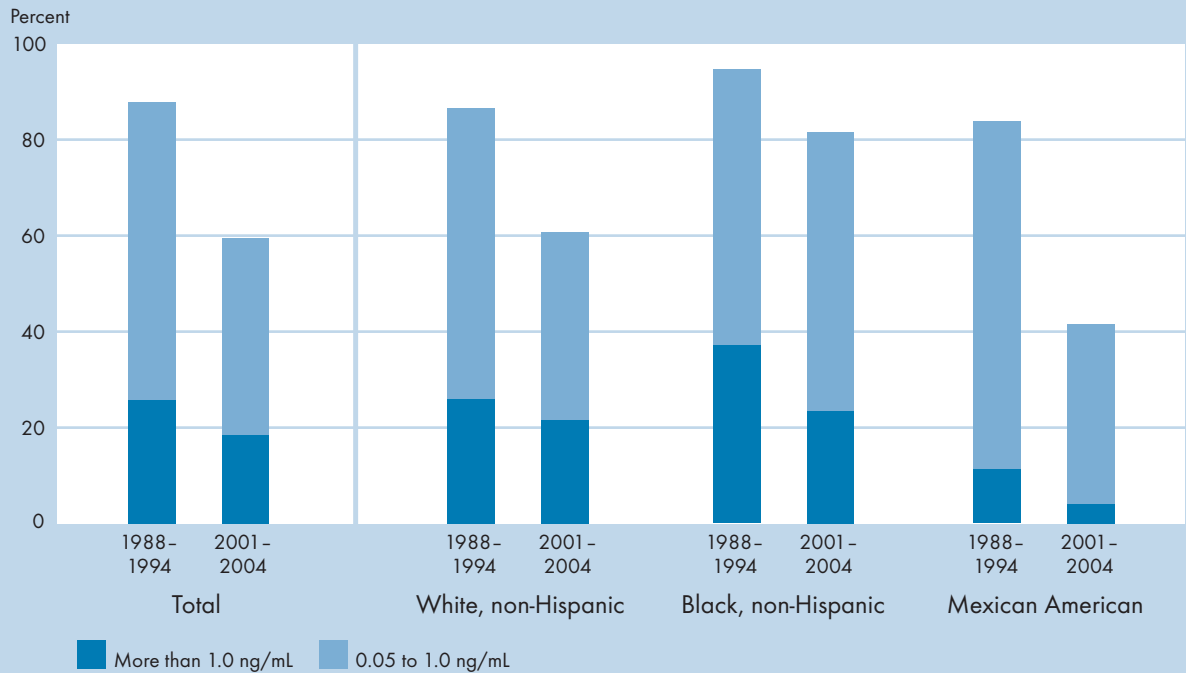
SOURCE: U.S. Environmental Protection Agency, Office of Air and Radiation, Air Quality System.

- In 2005, 60 percent of children lived in counties in which one or more air pollutants rose above allowable levels, an improvement from 65 percent in 1999.
- The Primary National Ambient Air Quality Standard for ozone is the standard exceeded most often. Ozone, as well as particulate matter, can cause respiratory problems and aggravate respiratory diseases, such as asthma, in children.^{56,58,59} These problems can lead to increased emergency room visits and hospitalizations.^{62,63,64,65} High levels of ozone are influenced by high summer temperatures. Ozone concentrations tended to be lower in 2004 than in other years due to generally lower summer temperatures that year.
- In 2005, approximately 25 percent of children lived in counties that exceeded the annual standard for fine particulate matter (PM_{2.5}), compared with 24 percent in 1999. The term “particulate matter” (PM) includes both solid particles and liquid droplets found in air.⁵⁹ Airborne particles measuring less than 10 micrometers in diameter (PM₁₀) 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, middle ear disease, sudden infant death syndrome (SIDS), and respiratory symptoms.⁶⁶ Secondhand smoke can also play a role in the development and exacerbation of asthma.⁶⁶ The U.S. Surgeon General has determined that there is no risk-free level of exposure to secondhand smoke.⁶⁶ Cotinine, a breakdown product of nicotine, is a marker for recent (previous 1–2 days) exposure to secondhand smoke.

Indicator PHY1.B

Percentage of children ages 4–11 with specified blood cotinine levels by race and Hispanic origin, 1988–1994 and 2001–2004

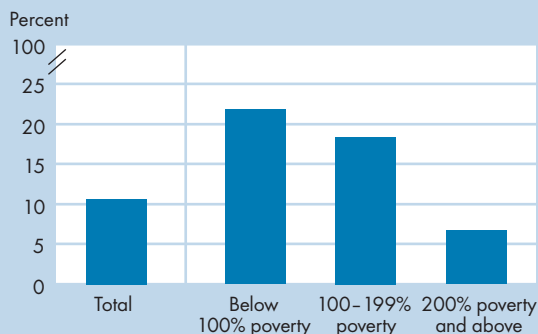


NOTE: The cotinine value of 0.05 ng/mL was the limit of detection in 1988–1994. Cotinine levels are reported for nonsmoking children only. The average (geometric mean) blood cotinine level in children living in homes where someone smokes was 1.0 ng/mL in 1988–1994.

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

Indicator PHY1.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 2001–2004 (59 percent). In 2001–2004, 18 percent had blood cotinine levels more than 1.0 nanograms per milliliter (ng/mL), down from 26 percent in 1988–1994.
- In 2001–2004, 81 percent of Black, non-Hispanic children ages 4–11 had cotinine in their blood, compared with 61 percent of White, non-Hispanic and 41 percent of Mexican American children.
- In 2003, the percentage of children ages 0–6 living in families where someone smoked regularly was 11 percent.⁶⁷ Children living below the poverty level were more likely than their peers to be living in families where someone smoked regularly.

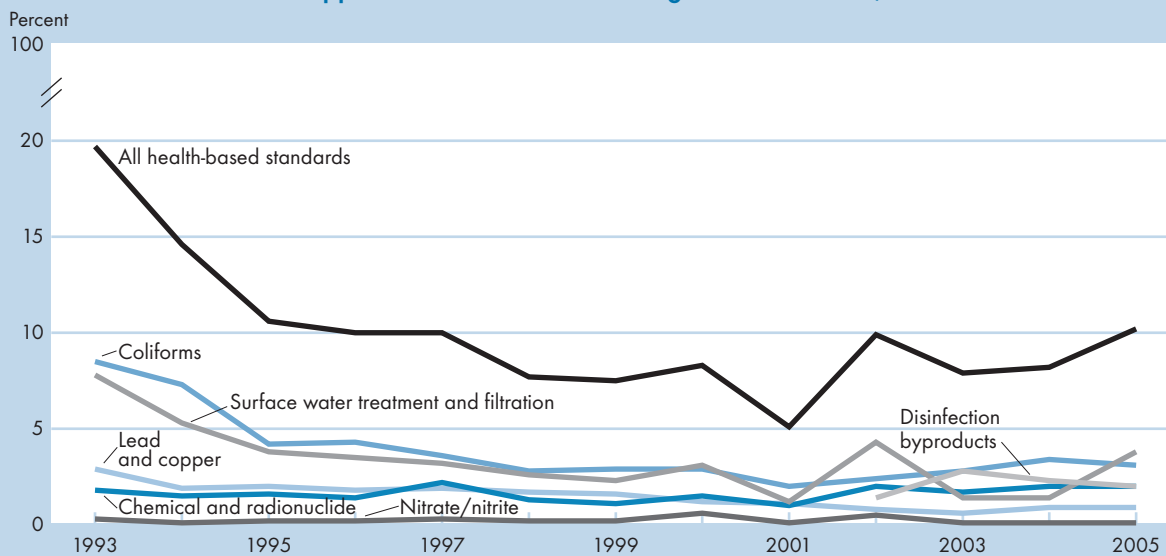
Bullets contain references to data that can be found in Tables PHY1.A–PHY1.C on pages 130–131. Endnotes begin on page 67.

Drinking Water Quality

Contaminants in surface and ground waters that serve as sources of drinking water may be quite varied and may cause a range of diseases in children, including acute diseases such as gastrointestinal illness, developmental effects such as learning disorders, and cancer.⁶⁸ The U.S. Environmental Protection Agency (EPA) sets drinking water standards designed to protect people against adverse health effects. These standards currently include Maximum Contaminant Levels (MCLs) and treatment technique requirements for over 90 chemical, radiological, and microbiological contaminants.⁶⁹ One way to gain insight into children's potential exposure to drinking water contaminants is to look at community water system compliance with these standards. EPA's drinking water regulations require public water systems, including community water systems, to monitor for compliance with federal health-based standards and treat their water if needed to meet standards. About 15 percent of the population receives drinking water from private water systems that are not required to monitor and report the quality of drinking water.⁷⁰

Indicator PHY2

Percentage of children served by community water systems that did not meet all applicable health-based drinking water standards, 1993–2005



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

- The percentage of children served by community drinking water systems that did not meet all applicable health-based standards declined from 20 percent in 1993 to about 8 percent in 1998. Since 1998, this percentage has fluctuated between 5 and 10 percent.
- Coliforms indicate the potential presence of harmful bacteria associated with infectious illnesses. The percentage of children served by community drinking water systems that did not meet the health-based standard for coliforms was about 9 percent in 1993 and about 3 percent in 2005.

- A new standard for disinfection byproducts was adopted in 2001. In 2005, 2 percent of all children served by community water systems were served by systems that had violations of the disinfection byproducts standard. Exposure to disinfection byproducts may lead to cancer and have developmental effects.⁷¹

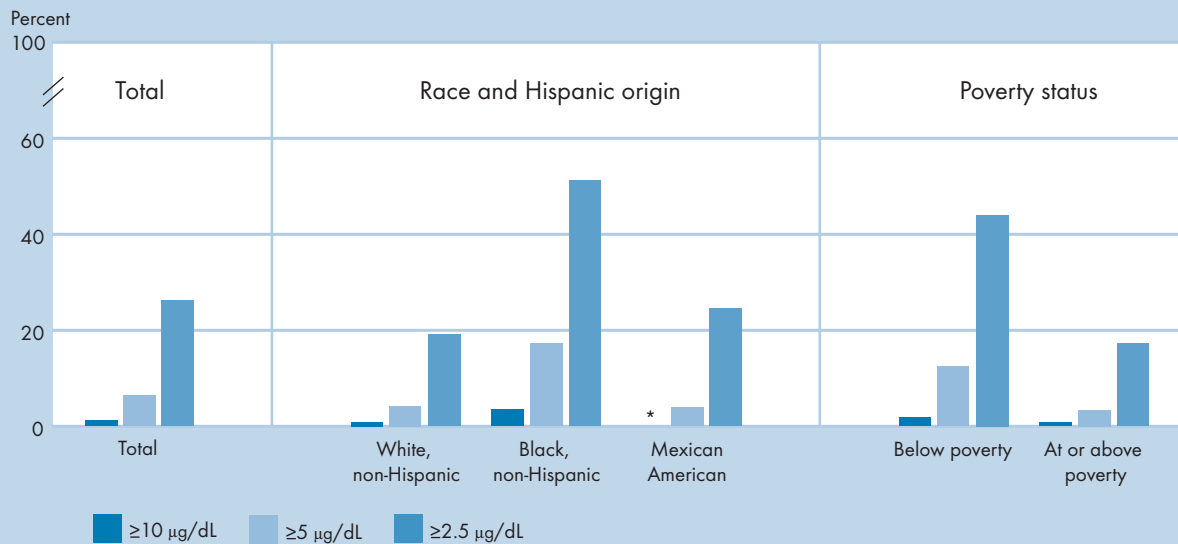
Bullets contain references to data that can be found in Table PHY2 on pages 132. Endnotes begin on page 67.

Lead in the Blood of Children

Lead is a major environmental health hazard for young children. Childhood exposure to lead contributes to learning problems and behavioral problems.^{72,73,74,75} A blood lead level of 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) or greater is considered elevated, but adverse health effects can occur at lower concentrations.^{76,77} A child with a 10 $\mu\text{g}/\text{dL}$ blood lead level will experience, on average, a decrease in IQ of 6 points.⁷⁸ Lead exposures have declined since the 1970s, due largely to the removal of lead from gasoline and fewer homes with lead-based paint. However, 25 percent of U.S. homes have significant lead-based paint hazards, such as high lead levels in dust and soil, which may contribute to childhood exposure.⁷⁹ Children ages 1–5 years are particularly vulnerable because of frequent hand-to-mouth behavior.

Indicator PHY3.A

Percentage of children ages 1–5 with specified blood lead levels by race and Hispanic origin and poverty status, 2001–2004



* Data not shown. Estimate is considered unreliable (relative standard error is greater than 40 percent).

NOTE: Data for 2001–2004 are combined.

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

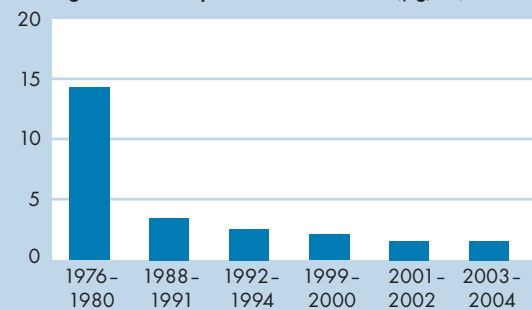
- In 2001–2004, about 1 percent of children ages 1–5 had elevated blood lead levels [greater than or equal to 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$)]. This is a substantial decline from the approximately 88 percent of children in 1976–1980 with blood lead levels at or above 10 $\mu\text{g}/\text{dL}$.
- About 17 percent of Black, non-Hispanic children, 4 percent of White, non-Hispanic children, and 4 percent of Mexican American children had blood lead levels at or above 5 $\mu\text{g}/\text{dL}$ in 2001–2004.
- Children living in families with incomes below poverty generally had greater blood lead levels than children in families at or above poverty.
- The median blood lead concentration for children ages 1–5 dropped from about 14 $\mu\text{g}/\text{dL}$ in 1976–1980 to about 2 $\mu\text{g}/\text{dL}$ in 2003–2004.

Bullets contain references to data that can be found in Tables PHY3.A and PHY3.B on page 133. Endnotes begin on page 67.

Indicator PHY3.B

Median blood lead concentrations among children ages 1–5, selected years 1976–2004

Micrograms of lead per deciliter of blood ($\mu\text{g}/\text{dL}$)



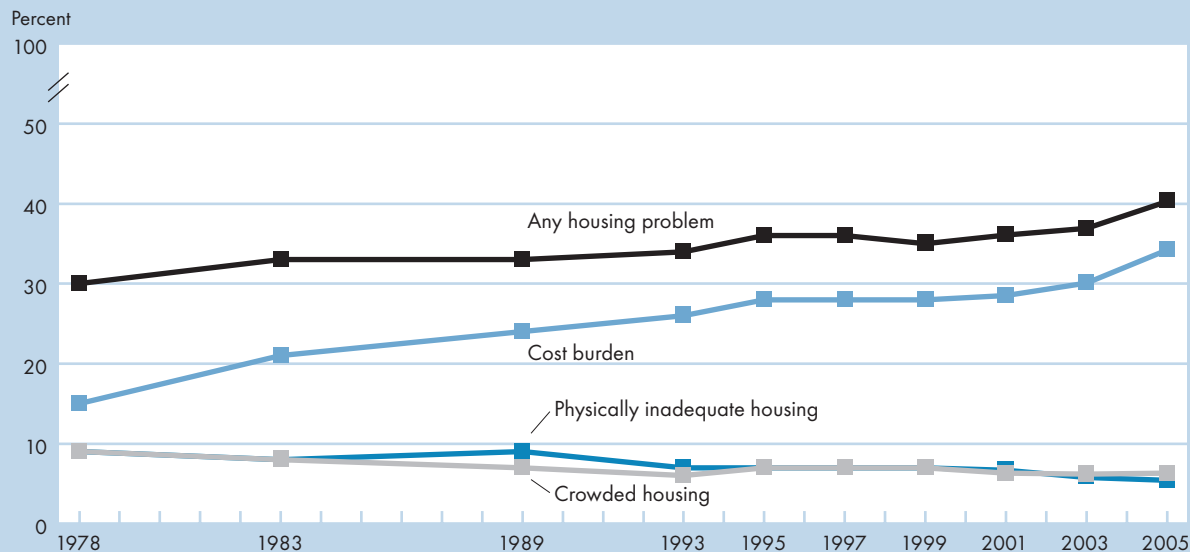
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.

Housing Problems

Inadequate, crowded, or costly housing can pose serious problems to children’s physical, psychological, and material well-being.⁸⁰ Housing cost burdens, especially at high levels, are a risk factor for negative child outcomes, including homelessness, overcrowding, poor nutrition, frequent moving, and lack of parental supervision because of working. The percentage of households with children that report that they are living in physically inadequate,⁸¹ crowded, or costly housing provides an estimate of the percentage of children whose well-being may be affected by their family’s housing.

Indicator PHY4

Percentage of households with children ages 0–17 that reported housing problems by type of problem, selected years 1978–2005



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

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

- In 2005, 40 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.⁸² In comparison, 37 percent of households with children had a housing problem in 2003. This percentage has increased over the long term from 30 percent in 1978.
- Inadequate housing, defined as housing with severe or moderate physical problems, continues to decrease. In 2005, 5 percent of households with children had inadequate housing, compared with 9 percent in 1978.
- Crowded housing, in which there is more than one person per room, remained stable at 6 percent of households with children in 2005, following reductions observed through 1993.
- Improvements in housing conditions, however, have been accompanied by rising housing costs. Between 1978 and 2005, the incidence of cost

burdens among households with children more than doubled, from 15 percent to 34 percent. The proportion with severe cost burdens, paying more than half of their income for housing, rose from 6 percent to 14 percent over the same period.

- Households that receive no rental assistance and have severe cost burdens or physical problems are defined as having severe housing problems.⁸³ The percentage of households with children facing severe housing problems increased from 11 percent in 2003 to 14 percent in 2005.
- Severe housing problems are especially prevalent among very low-income renters.⁸⁴ Increases in severe cost burden raised the incidence of severe housing problems among very low-income renter households with children from 29 percent to 36 percent between 2003 and 2005.

Bullets contain references to data that can be found in Table PHY4 on page 134. Endnotes begin on page 67.

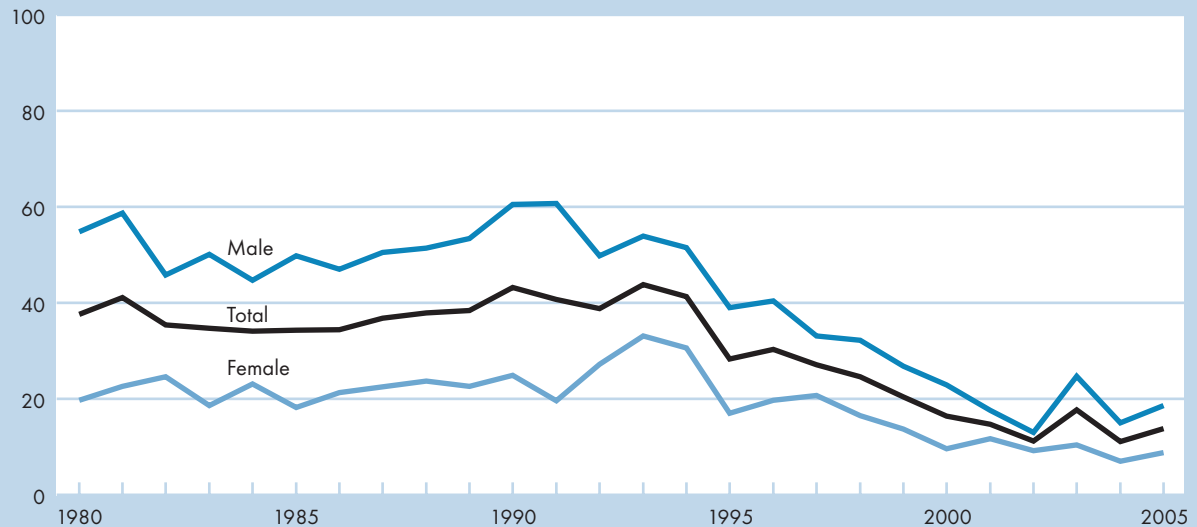
Youth Victims of Serious Violent Crimes

Violence affects the quality of life of young people who experience, witness, or feel threatened by it. In addition to the direct physical harm suffered by young victims of serious violence, such violence can adversely affect victims' mental health and development and increase the likelihood that they themselves will commit acts of serious violence.^{85,86} Youth ages 12–17 were more than twice as likely as adults to be victims of serious violent crimes.⁸⁷

Indicator PHY5

Rate of serious violent crime victimization of youth ages 12–17 by gender, 1980–2005

Youth victims per 1,000 juveniles ages 12–17



NOTE: Serious violent crimes include aggravated assault, rape, robbery (stealing by force or threat of violence), and homicide. Because of changes, data prior to 1992 are adjusted to make them comparable with data collected under the redesigned methodology. The 2005 data were collected during the calendar year and include some incidents that occurred during the previous year. Data for previous years are of victimizations experienced in the calendar year. This was done because the full data for 2005 were not yet available. Analyses comparing these data show only a small difference between the two methods.

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

- In 2005, the rate at which youth were victims of serious violent crimes was 14 crimes per 1,000 juveniles ages 12–17, totaling about 350,600 such crimes.
- Serious violent crime involving juvenile victims stayed about the same between 2004 and 2005. However, rates are still significantly lower than their peak in 1993. In 1993, the serious violent crime victimization rate was 44 per 1,000 juveniles, compared to the 2005 rate of 14 per 1,000 juveniles.
- Males are more than twice as likely as females to be victims of serious violent crimes. In 2005, the serious violent crime victimization rate was 19 per 1,000 male youth, compared with 9 per 1,000 female youth.
- In 2005, Black youth were more likely than White youth to be victims of a serious violent crime and over twice as likely as youth of other races to be victims of serious violence.
- Older teens (ages 15–17) were more likely to be victims of a serious violent crime than younger teens (ages 12–14) in 2005. Older teens also had higher rates of serious violent crime victimization in 2005 (17 victims per 1,000) than in 2004 (11 victims per 1,000).

Bullets contain references to data that can be found in Table PHY5 on page 135. Endnotes begin on page 67.

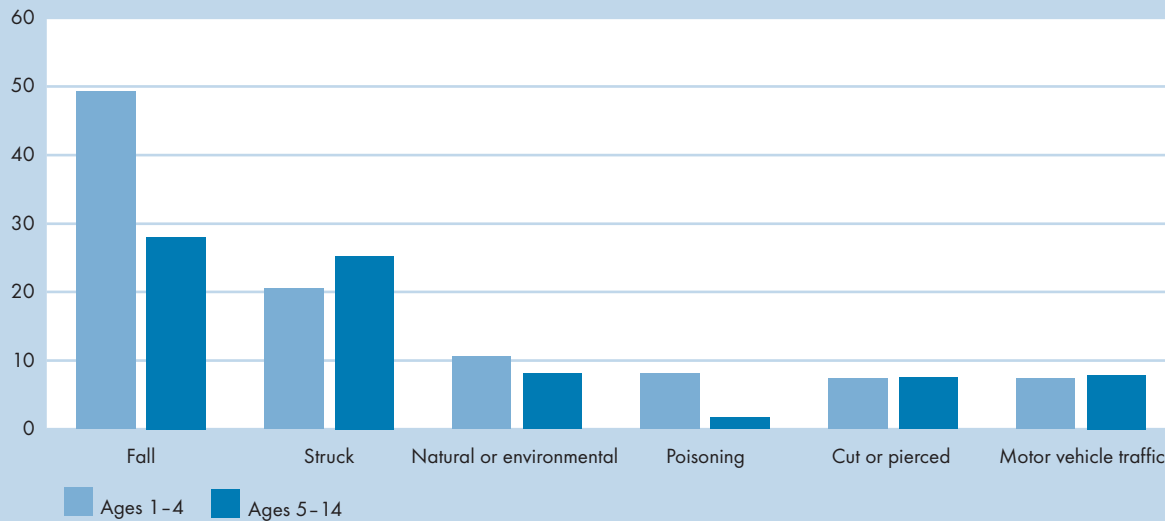
Child Injury and Mortality

Although fatal injuries have declined over the past two decades, unintentional injuries are the leading cause of death for children ages 1–4 and ages 5–14. In addition, non-fatal injuries continue to be important causes of child morbidity and disability and to substantially reduce quality of life.⁸⁸ For every fatal injury among children ages 1–14, there are 33 hospitalizations and 1,350 emergency department visits for injuries.⁸⁹ The leading causes of injury differ for children and adolescents.

Indicator PHY6.A

Emergency department visit rates for children ages 1–14 by leading causes of injury visits, 2003–2004

Visits per 1,000 children



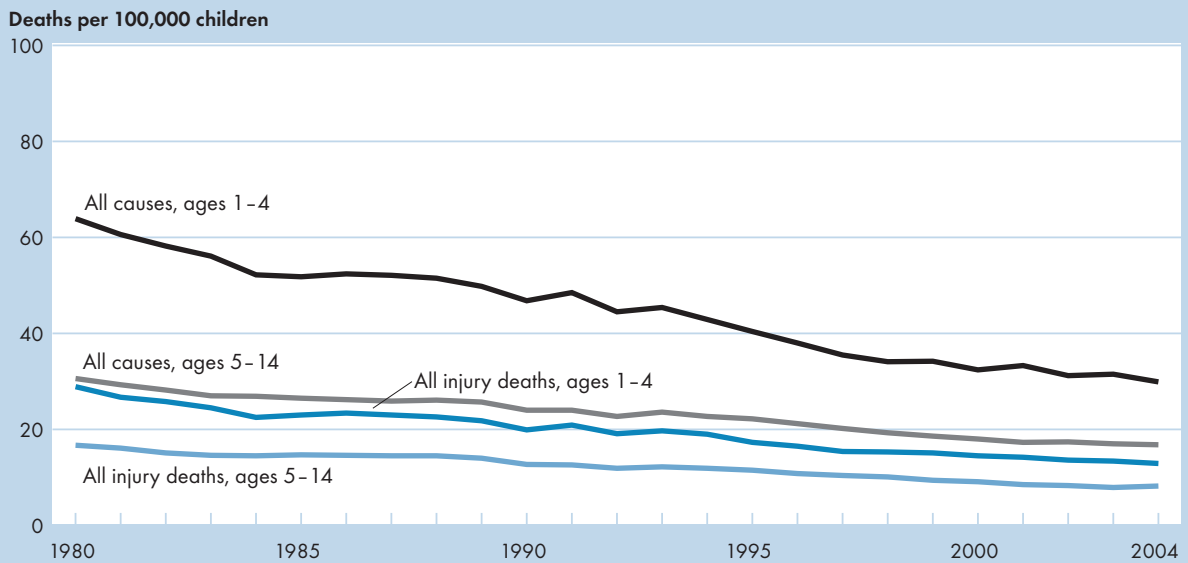
NOTE: Visits are the initial visit to the emergency department for the injury. The cause of injury “struck” denotes being struck against or by an object or person, “natural or environmental” denotes injuries caused by natural or environmental factors, and “cut or pierced” denotes injuries caused by cutting and piercing instruments or objects.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Ambulatory Medical Care Survey.

- Among children, falls and being struck by or against an object are the two leading causes of injury-related emergency department visits. In 2003–2004, falls accounted for 35 percent of initial injury visits for children ages 1–4. In 2003–2004, there were 49 annual emergency department visits for falls per 1,000 children ages 1–4, whereas the rate for children ages 5–14 was 28 per 1,000.
- Younger children frequently strike furniture after running, tripping, or falling, whereas older children are often struck as a result of play or sports. Emergency department visit rates for being struck by or against an object were similar in both younger (21 emergency department visits per 1,000) and older children (25 emergency department visits per 1,000).
- Emergency department visit rates for natural and environmental causes of injury, poisonings, cuts, and motor vehicle traffic accidents were statistically similar for children ages 1–4, averaging 7–11 visits per 1,000 children.
- Emergency department visit rates for poisoning were higher among younger children (8 per 1,000) than older children (2 per 1,000).
- Overall, 1 to 2 percent of initial injury-related emergency department visits result in hospitalizations. However, 3 to 4 percent of emergency department visits for motor vehicle traffic injuries result in hospitalizations. Among children ages 5–14, 4 percent of emergency department visits for poisoning resulted in hospitalizations in 2003–2004.

Indicator PHY6.B

Death rates among children ages 1–4 and 5–14, by all causes and all injury causes, 1980–2004



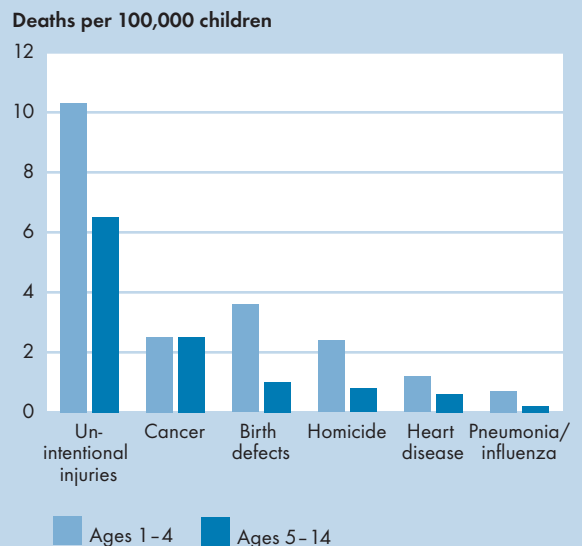
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

- In 2004, the death rate for children ages 1–4 was 30 per 100,000 children and for children ages 5–14 was 17 per 100,000 children. Between 1980 and 2004, the death rate declined by about half for both age groups.
- Among both younger and older children, Black children had the highest death rates in 2004, at 45 per 100,000 children ages 1–4 and 24 per 100,000 children ages 5–14. Asian/Pacific Islander children had the lowest death rates.
- Among children ages 1–4 and 5–14, unintentional injuries (accidents) were the leading cause of death (ages 1–4, 10 deaths per 100,000 children; ages 5–14, 7 per 100,000). For children ages 1–4, this was followed by birth defects (4 per 100,000), cancer (3 per 100,000), and homicide (2 per 100,000 children). Among children ages 5–14, this was followed by cancer (3 per 100,000), and birth defects and homicide (1 per 100,000 children each).
- Among children ages 10–14, suicide was the third leading cause of death (1.3 deaths per 100,000) followed by homicide (1.0 deaths per 100,000).
- Motor vehicle traffic accidents are the most common type of fatal injury among children ages 1–14.

Bullets contain references to data that can be found in Tables PHY6.A–PHY6.C on pages 136–138. Endnotes begin on page 67.

Indicator PHY6.C

Death rates among children ages 1–4 and 5–14, by cause of death, 2004



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

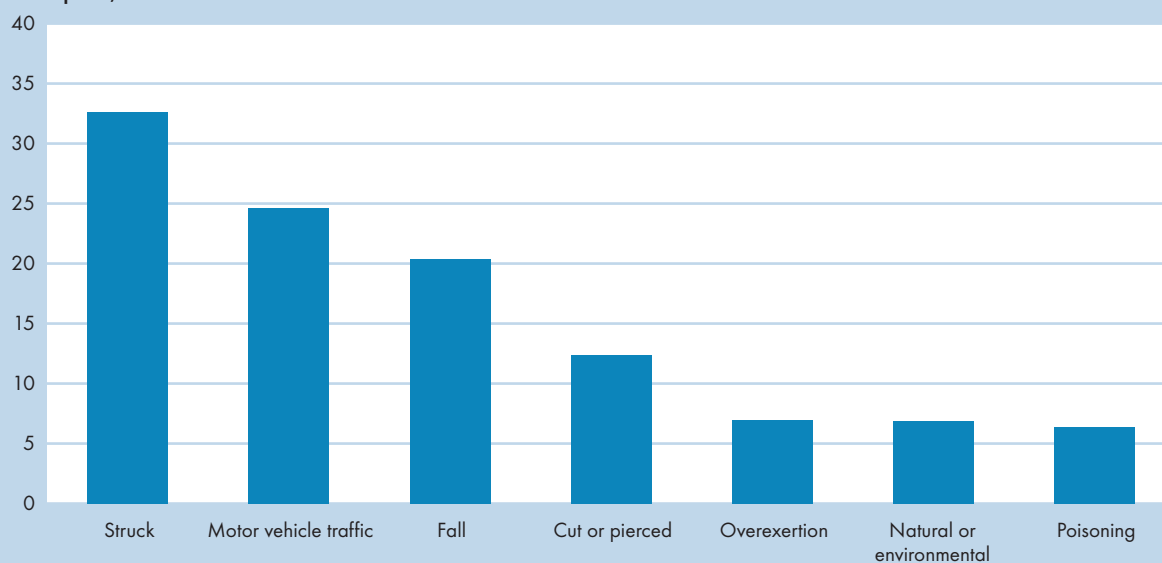
Adolescent Injury and Mortality

Injury accounts for close to 80 percent of adolescent deaths. Compared with younger children, adolescents ages 15–19 have much higher mortality rates overall and from injuries. Adolescents are much more likely to die from injuries sustained from motor vehicle traffic accidents and firearms.⁹⁰ The leading causes of non-fatal injuries in adolescents also differ from younger children. For example, the leading cause of adolescent injury is being struck, whereas for younger children, the leading cause of injury is falls. In addition, non-fatal injuries in adolescents more often result from violence, sports-related activities, or motor vehicle traffic crashes. For each fatal injury among adolescents, there are 11 hospitalizations and nearly 300 emergency department visits for injuries.⁸⁹

Indicator PHY7.A

Emergency department visit rates for adolescents ages 15–19 by leading causes of injury visits, 2003–2004

Visits per 1,000 children



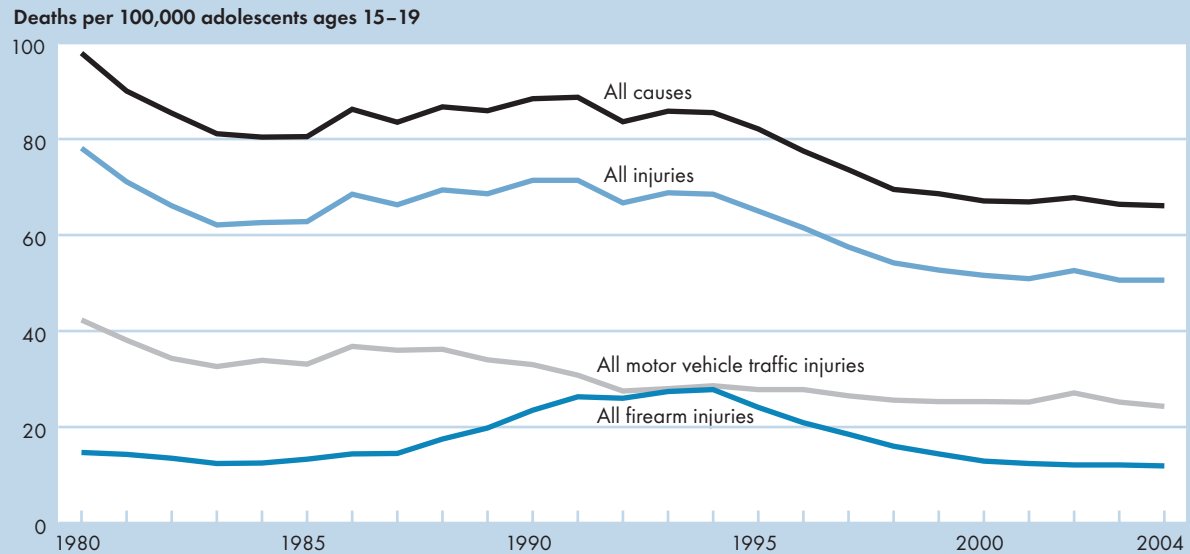
NOTE: Visits are the initial visit to the emergency department for the injury. The cause of injury “struck” denotes being struck against or by an object or person, “cut or pierced” denotes injuries caused by cutting and piercing instruments or objects, “overexertion” denotes excessive physical exercise or strenuous movements in recreational or other activities, and “natural or environmental” denotes injuries caused by natural or environmental factors.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Ambulatory Medical Care Survey.

- The leading causes of initial injury-related emergency department visits among adolescents ages 15–19 in 2003–2004 were being struck by or against an object (33 visits per 1,000), motor vehicle traffic crashes (25 visits per 1,000), and falls (20 visits per 1,000), altogether accounting for half of all injury-related emergency department visits for this age group.
- Injury emergency department visits for adolescents being struck by or against an object or person were most often the result of a sports-related activity (39 percent)⁹¹ or an assault (24 percent).
- In 2003–2004 among adolescents’ emergency department visits for poisonings, about one-third were unintentional and more than one-half were recorded as self-inflicted.
- Although the emergency department visit rate for poisonings among youth ages 15–19 is low (6 visits per 1,000), one-third of such visits result in admission to the hospital.

Indicator PHY7.B

Death rates among adolescents ages 15–19 by all causes, all injury causes, and selected mechanisms of injury, 1980–2004



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

- In 2004, the death rate for adolescents ages 15–19 was 66 per 100,000. Nearly 80 percent of adolescent deaths occurred from injuries (51 per 100,000). Both rates declined substantially since 1980 despite a period of increase from 1986–1991.
- Motor vehicle traffic and firearm injuries account for more than half of adolescent injury deaths. The motor vehicle traffic death rate declined since 1980, while the firearm death rate was steady from 1980–1987, increased from 1987–1994, and declined by more than half since 1994.
- Injury deaths can also be reported by the manner, or intent, of death. Unintentional injury accounts for about half of all injury deaths among adolescents. In 2004, this rate was 33 deaths per 100,000 youth ages 15–19, unchanged from 2003. The leading mechanisms of unintentional injury deaths for this age group are motor vehicle traffic injuries, poisoning, and drowning.

- Among intentional injuries, the homicide rate in 2004 was 9 deaths per 100,000 youth ages 15–19, unchanged since 2000. The suicide rate in 2004, 8 deaths per 100,000 youth, was the same rate as in 2000 and was an increase from the 2003 rate of 7 deaths per 100,000 youth. In 2004, firearms accounted for four of five homicides and nearly half of all suicides. Suffocation, mainly from hanging, accounted for 40 percent of suicides.

Bullets contain references to data that can be found in Tables PHY7.A and PHY7.B on pages 139–142. Endnotes begin on page 67.

Indicator Needed

Physical Environment and Safety

Children are exposed to many different contaminants in the environment. Measurements of contaminants in air, water, land, and food provide indirect indications of children's potential exposures to these contaminants. Increasing efforts are underway to assess exposures through "body burden" measurements—contaminant levels in samples of blood and other fluids, such as blood lead levels. However, these direct body burden measurements are not available for many environmental contaminants of concern. Both environmental and body burden measurements are needed to characterize children's environments.

- *Environmental quality.* Although this report provides indicators for contaminants in both outdoor and indoor air, regular sources of national data are needed to assess indoor air contaminants other than environmental tobacco smoke (e.g., pesticides) that are commonly encountered in homes, schools, and day care settings. Data are needed to more thoroughly characterize children's potential exposure to drinking water contaminants. Indicators are also needed for food and soil contaminants and for cumulative exposures to multiple environmental contaminants that children encounter daily.



Behavior

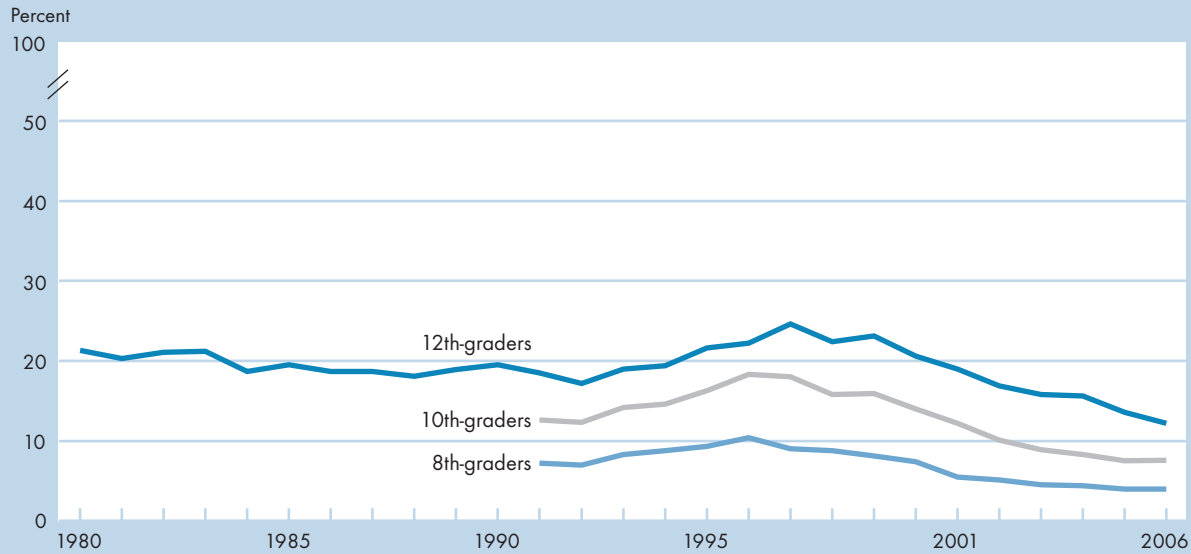
The well-being of young people can be affected by aspects of their behavior and social environments. The indicators in this section focus on illegal and high-risk behaviors. Substance use behaviors are shown for regular cigarette smoking, alcohol use, and illicit drug use. Other indicators in this section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

Regular Cigarette Smoking

Smoking has serious long-term consequences, including the risk of smoking-related diseases and the risk of premature death, as well as increased health care costs associated with treating the illnesses.⁹² Many adults who are currently addicted to tobacco began smoking as adolescents, and it is estimated that more than 5 million of today's underage smokers will die of tobacco-related illnesses.⁹³ These consequences underscore the importance of studying patterns of smoking among adolescents.

Indicator BEH1

Percentage of 8th-, 10th-, and 12th-grade students who reported smoking cigarettes daily in the previous 30 days by grade, 1980–2006



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

- Among 8th-, 10th-, and 12th-graders in 2006, the percentage who reported smoking cigarettes daily in the past 30 days was about half the percentage for the same groups in 1995. In 2006, 4 percent of 8th-graders, 8 percent of 10th-graders, and 12 percent of 12th-graders reported smoking cigarettes daily in the past 30 days, compared with the respective 1995 percentages of 9, 16, and 22.
- The percentage of students who reported smoking cigarettes daily was 4 for both male and female 8th-graders and 12 for both male and female 12th-graders. Seven percent of male and 8 percent of female 10th-graders reported daily smoking.

- Fifteen percent of 12th-grade White, non-Hispanic students reporting smoking cigarettes daily in the past 30 days, compared with 6 percent of Black, non-Hispanic and 7 percent of Hispanic 12th-graders.

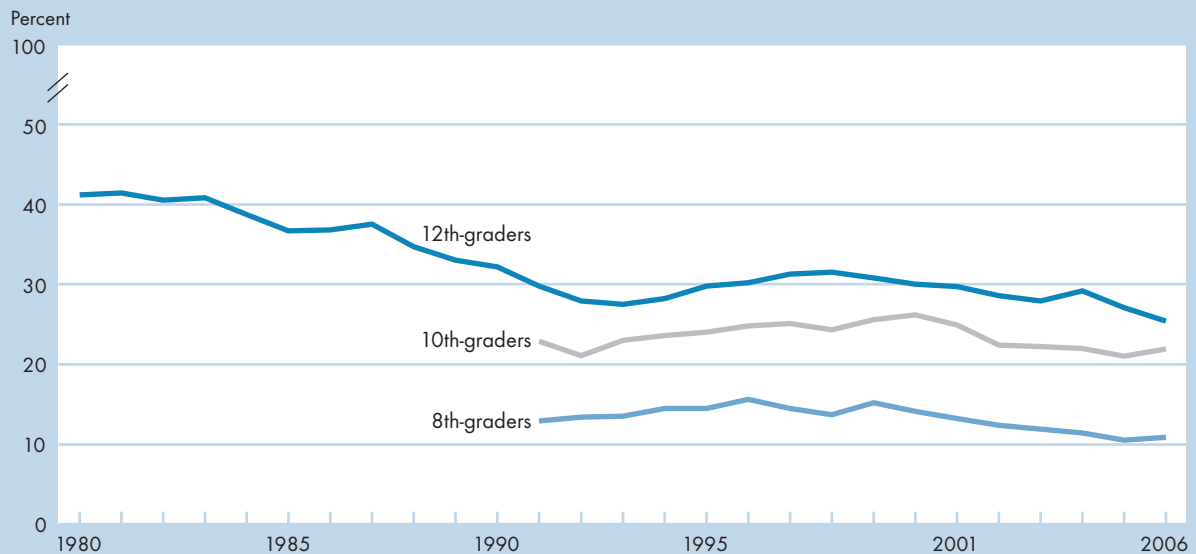
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Alcohol Use

Alcohol is the most common psychoactive substance used during adolescence. Its use is associated with motor vehicle accidents, injuries, and deaths; problems in school and in the workplace; and fighting, crime, and other serious consequences.⁹⁴ Early onset of heavy drinking, defined here as five or more alcoholic beverages in a row or during a single occasion in the previous 2 weeks, may be especially problematic, potentially increasing the likelihood of these negative outcomes.

Indicator BEH2

Percentage of 8th-, 10th-, and 12th-grade students who reported having five or more alcoholic beverages in a row in the past 2 weeks by grade, 1980–2006



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

- Heavy drinking, defined as having five or more alcoholic beverages in a row in the past two weeks, declined from 15 percent in 1995 to 11 percent in 2006 for 8th-graders, from 24 to 22 percent for 10th-graders, and from 30 to 25 percent for 12th-graders.
- In 2006, 11 percent of both male and female 8th-graders reported heavy drinking; for 10th-graders, the proportion was 23 percent for males and 21 percent for females. Twenty-nine percent of 12th-grade males reported heavy drinking, compared with 22 percent of 12th-grade females.
- For 10th- and 12th-graders in 2006, the percentage of White, non-Hispanic and Hispanic students who were heavy drinkers was approximately double the percentage of Black, non-Hispanic students. The percentages of 10th-graders who were heavy drinkers were 23 for White, non-Hispanic, 25 for Hispanic, and 11 for Black, non-Hispanic students. For 12th-graders, the respective percentages were 29, 25, and 12. For 8th-graders, the rate of heavy drinking was 10 percent for White, non-Hispanics, 15 percent for Hispanics, and 8 percent for Black, non-Hispanics.

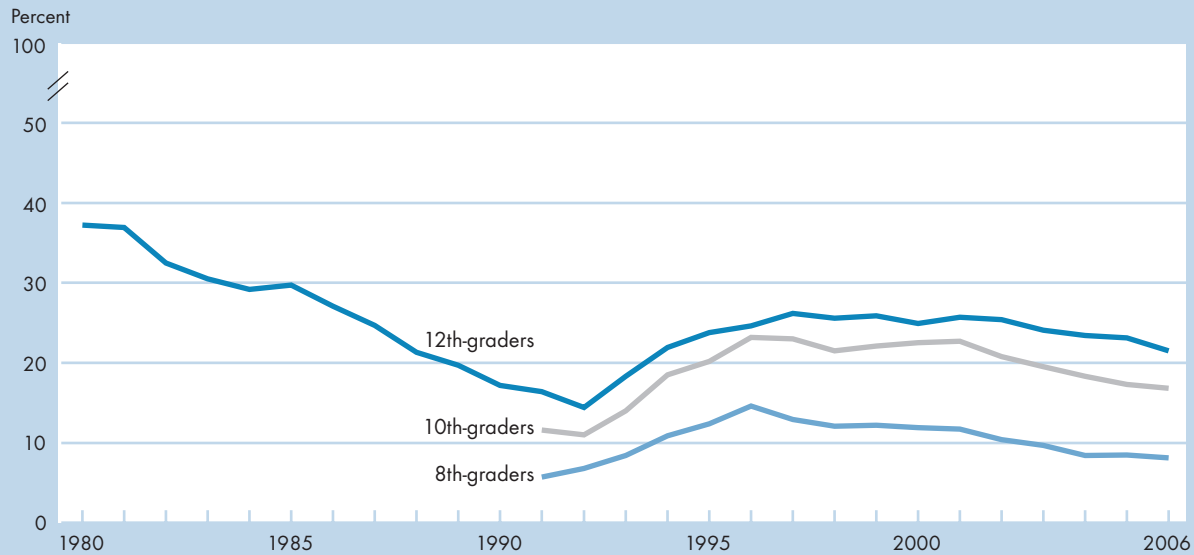
Bullets contain references to data that can be found in Table BEH2 on page 144. Endnotes begin on page 67.

Illicit Drug Use

Drug use by adolescents can have immediate as well as long-term health and social consequences. Cocaine use is linked with health problems that range from eating disorders, to disability, to death from heart attacks and strokes.⁹⁵ Marijuana use poses both health and cognitive risks, particularly for damage to pulmonary functions as a result of chronic use.^{96,97} Hallucinogens can affect brain chemistry and result in problems with learning new information and memory.⁹⁸ As is the case with alcohol use and smoking, illicit drug use is a risk-taking behavior that has potentially serious negative consequences.

Indicator BEH3

Percentage of 8th-, 10th-, and 12th-grade students who have used illicit drugs in the previous 30 days by grade, 1980–2006



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

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

- Illicit drug use in the past 30 days remained stable from 2005 to 2006. Eight percent of 8th-graders, 17 percent of 10th-graders, and 22 percent of 12th-graders reported use in the past 30 days in 2006.
- Eight percent of both male and female 8th-graders reported using illicit drugs in the past 30 days. Among 10th-graders, it was 18 percent for males and 15 percent for females. Among 12th-graders, 23 percent of males and 20 percent of females reported illicit drug use in the past 30 days.

- Since recent peaks in the mid- to late-1990s, past-30-day illicit drug use has declined from a peak of 15 percent for 8th-graders and 23 percent for 10th-graders in 1996, and 26 percent for 12th-graders in 1997.

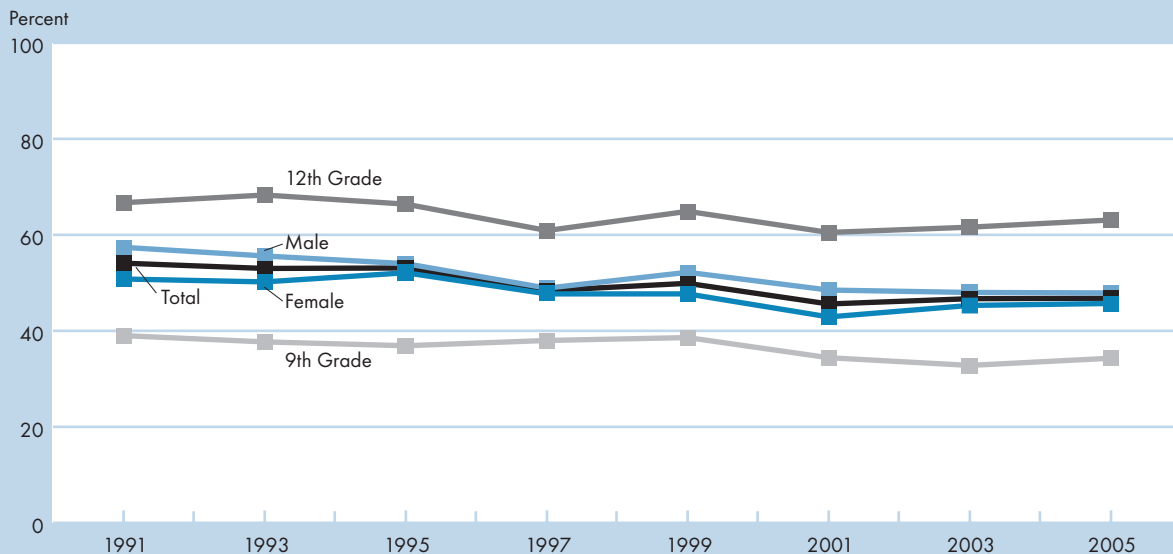
Bullets contain references to data that can be found in Table BEH3 on page 145–146. Endnotes begin on page 67.

Sexual Activity

Early sexual activity is associated with emotional⁹⁹ and physical health risks. Youth who choose abstinence avoid risks associated with sexual activity, such as contracting sexually transmitted infections (STIs) and becoming pregnant. STIs, including HIV, can infect a person for a lifetime and have consequences including disability and early death; meanwhile, delaying sexual initiation is associated with a decrease in the number of lifetime sexual partners,¹⁰⁰ and decreasing the number of lifetime partners is associated with a decrease in the rate of STI.¹⁰¹ Additionally, teen pregnancy is associated with a number of negative risk factors, not only for the mother but also for her child (see FAM6).

Indicator BEH4

Percentage of high school students who reported ever having had sexual intercourse by gender and selected grades, selected years 1991–2005



NOTE: Students were asked, "Have you ever had sexual intercourse?" Data are collected biennially.

SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System.

- In 2005, 47 percent of high school students reported ever having had sexual intercourse. This was statistically the same rate as in 2003.
- The proportion of students who reported ever having had sexual intercourse declined significantly from 1991 (54 percent) to 2001 (46 percent) and has remained stable from 2001 to 2005.
- The percentage of students who reported ever having had sexual intercourse differs by grade. In 2005, 34 percent of 9th-grade students reported having ever had sexual intercourse, compared with 63 percent of 12th-grade students.
- Trends differed by race and ethnicity. The rate among White, non-Hispanic students declined from 50 percent in 1991 to 42 percent in 2003 (the 2005 rate of 43 percent is not statistically different from the 2003 rate). The proportion of students who reported ever having had sexual intercourse has declined among Black, non-Hispanic students, from 82 percent in 1991 to 68 percent in 2005. There was no statistically significant change among Hispanic students between 1991 and 2005.
- Overall, rates of sexual intercourse did not differ by sex, though they did differ by sex within certain racial and ethnic groups. In 2005, 75 percent of Black, non-Hispanic male students reported ever having had sexual intercourse, compared with 61 percent of Black, non-Hispanic female students; 58 percent of Hispanic male students reported ever having had sexual intercourse, compared with 44 percent of Hispanic female students.
- In 2005, 18 percent of students who had sexual intercourse in the past three months had used birth control pills before their last sexual intercourse and 63 percent used a condom during their last sexual intercourse. Of note, condom use increased since 1991 (from 46 percent) among high school students, while there was no statistically significant change in the use of birth control pills.

Bullets contain references to data that can be found in Tables BEH4.A and BEH4.B on page 147. Endnotes begin on page 67.

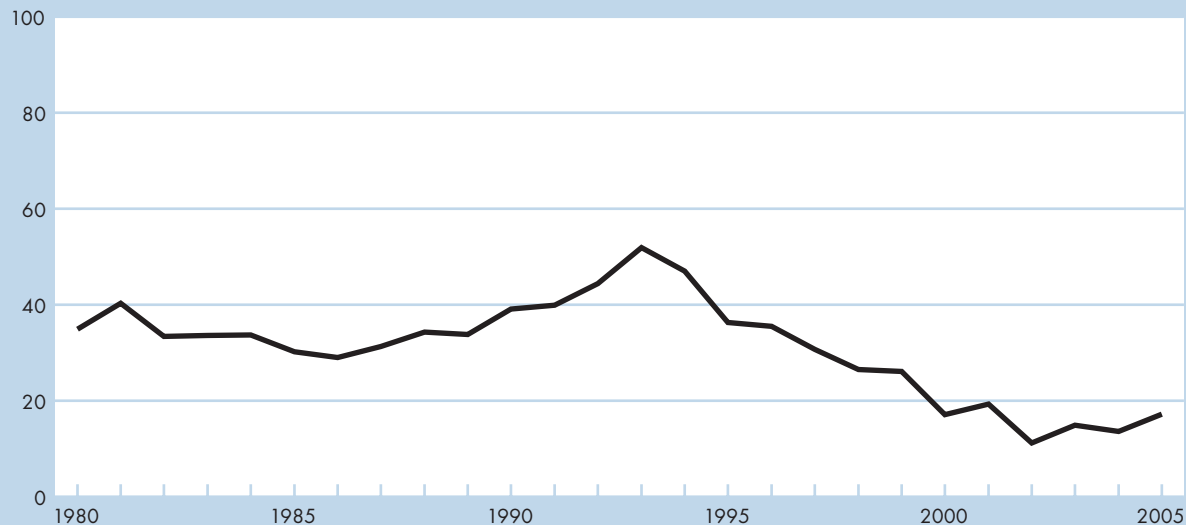
Youth Perpetrators of Serious Violent Crimes

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

Indicator BEH5

Rate of serious crimes by youth perpetrators ages 12–17, 1980–2005

Youth offending per 1,000 juveniles ages 12–17



NOTE: The offending rate is the ratio of the number of crimes (aggravated assault, rape, and robbery, i.e., stealing by force or threat of violence) reported to the National Crime Victimization Survey that involved at least one offender perceived by the victim to be 12–17 years of age, plus the number of homicides reported to the police that involved at least one juvenile offender, to the number of juveniles in the population. Because of changes made in the victimization survey, data prior to 1992 are adjusted to make them comparable with data collected under the redesigned methodology. The 2005 data were collected during the calendar year and include some incidents that occurred during the previous year. Data for previous years are of victimizations experienced in the calendar year. This was done because the full data for 2005 were not yet available. Analyses comparing these data show only a small difference between the two methods.

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

- In 2005, the serious violent crime offending rate was 17 crimes per 1,000 juveniles ages 12–17, totaling 437,000 such crimes involving juveniles. While this is somewhat higher than the rate in 2004, it is significantly lower than the 1993 peak rate of 52 crimes per 1,000 juveniles ages 12–17.
- Between 1980 and 1989, the serious violent juvenile crime offending rate fluctuated between 29 and 40 per 1,000 juveniles and then began to increase to a high of 52 per 1,000 juveniles in 1993. Since then, the rate has, in general, trended downward with a rate of 14 per 1,000 juveniles in 2004 and a somewhat significant increase to 17 per 1,000 juveniles in 2005.
- Since 1980, serious violent crime involving youth offenders has ranged from 19 percent of all serious violent victimizations in 1982 to 26 percent in 1993, the peak year for youth violence. In 2005, 24 percent of all such victimizations reportedly involved a juvenile offender.

- In about half of all serious violent juvenile crimes reported by victims in 2005, more than one offender was involved in the incident. Because insufficient detail exists to determine the ages of each individual offender when a crime is committed by more than one offender, the number of additional juvenile offenders cannot be determined. Therefore, this rate of serious violent crime offending does not represent the number of juvenile offenders in the population, but rather the rate of crimes involving a juvenile.

Bullets contain references to data that can be found in Table BEH5 on page 148. Endnotes begin on page 67.

Indicators Needed

Behavior

A broader set of indicators than those presented in this section is needed to adequately monitor the behaviors and social environments of youth. Other behavior and social environment measures are needed on:

- *Positive behaviors.* The participation of youth in positive activities (e.g., activities such as volunteering or voting) and the formation of close attachments to family, school, and community have been linked to positive outcomes in research studies. However, additional research needs to be conducted to strengthen our understanding of positive activities and the aspects of those activities that protect youth from risk. To that end, the Forum co-sponsored the Indicators of Positive Development conference to conceptualize, define, and measure positive youth development.
- *Youth violence.* The indicator of serious violent crime offending by youth does not provide critical information on the involvement of youth in the criminal justice system, including the characteristics of youthful offenders and the number and characteristics of youth arrestees and detainees, those prosecuted in juvenile and adult courts, and those incarcerated in the Nation's juvenile facilities, jails, and prisons. Additional work is needed to produce a more comprehensive and useful picture of the number, experiences, and characteristics of youth within the criminal justice system.

The background of the page is a blue-tinted photograph of a young girl in a classroom. She is looking towards the camera with a slight smile, and her right hand is raised high in the air. In the background, the stars and stripes of the American flag are visible. The overall tone is positive and educational.

Education

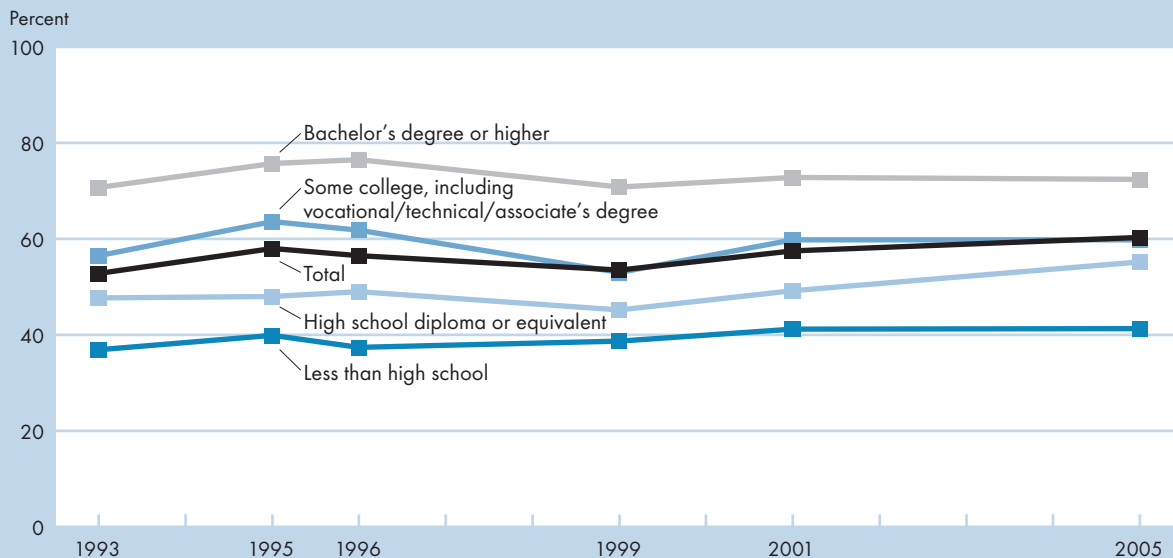
The education of children shapes their own personal development and life chances, as well as the economic and social progress of our Nation. This section presents key indicators of how well children are learning and progressing from early childhood through postsecondary school. An indicator on family reading to young children suggests the extent of home support for early learning. Scores on national assessments of mathematics and reading for elementary, middle, and high school students are presented, followed by an indicator on advanced coursetaking. High school completion and college enrollment rates indicate the extent to which students have attained a basic education and are prepared for higher levels of education or the workforce. By contrast, the indicator on youth neither enrolled in school nor working tracks the extent to which youth are at risk of limiting their future prospects at a critical stage of their lives.

Family Reading to Young Children

Readings to young children promotes language acquisition and is linked with literacy development and, later on, with achievement in reading comprehension and overall success in school.¹⁰² The percentage of young children read to daily by a family member is one indicator of how well young children are being prepared for school.

Indicator ED1

Percentage of children ages 3–5 who were read to every day in the last week by a family member by mother's education, selected years 1993–2005



NOTE: Data are available for 1993, 1995, 1996, 1999, 2001, and 2005. Estimates are based on children ages 3–5 who have yet to enter kindergarten.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program (NHES).

- In 2005, 60 percent of children ages 3–5 who were not yet in kindergarten were read to daily by a family member. This rate is higher than the rate in 1993 (53 percent), but the rate fluctuated in intervening years.
- In 2005, 72 percent of children whose mothers had at least a bachelor's degree were read to every day. In comparison, daily reading occurred for 60 percent of children whose mothers had some postsecondary education, 55 percent of children whose mothers had a high school diploma or equivalent but no further education, and 41 percent of children whose mothers had less than a high school diploma.
- White, non-Hispanic and Asian, non-Hispanic children were more likely to be read to every day than either Black, non-Hispanic or Hispanic children. Sixty-eight percent of White, non-Hispanic children, 66 percent of Asian, non-Hispanic children, 50 percent of Black, non-Hispanic children, and 45 percent of Hispanic children were read to every day by a family member.
- Children in families with incomes of 200 percent or more of the poverty level were more likely to be read to daily by a family member (65 percent) than were children in families with incomes below the poverty level (50 percent) or those in families with incomes 100–199 percent of the poverty level (60 percent) in 2005.
- Children living with two parents were more likely to be read to every day than were children living with one parent. Sixty-two percent of children in two-parent households were read to every day in 2005, compared with 53 percent of children living with one parent.
- Children in the Northeast (66 percent), Midwest (62 percent), and West (61 percent) were more likely than their peers in the South (56 percent) to have been read to daily by a family member in 2005.

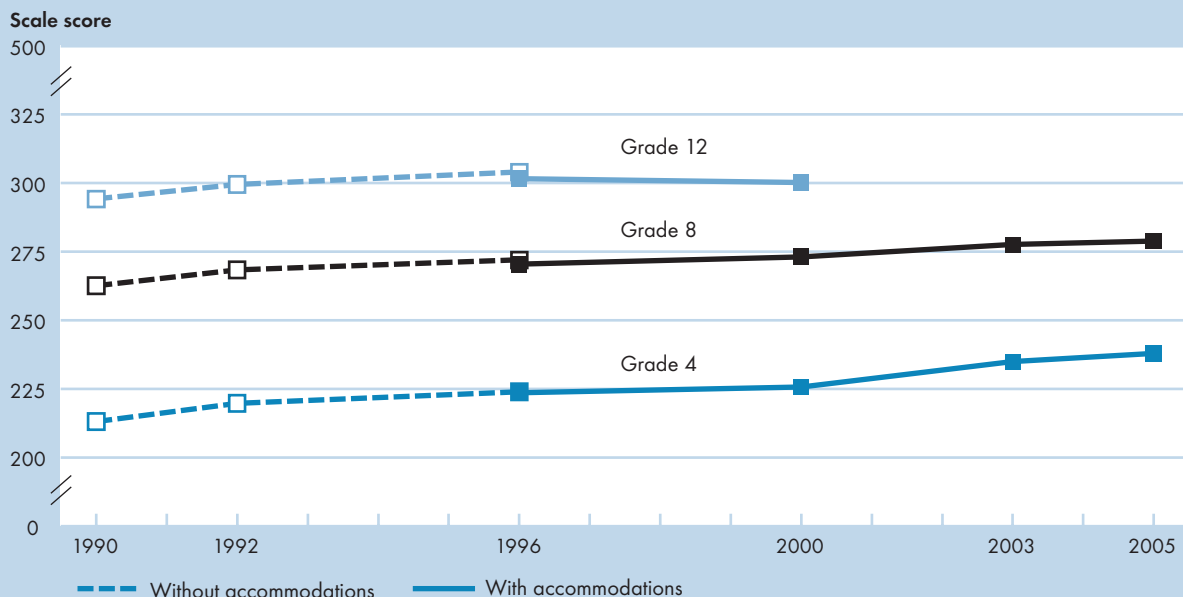
Bullets contain references to data that can be found in Table ED1 on pages 149–150. Endnotes begin on page 67.

Mathematics and Reading Achievement

The extent and content of students' knowledge, as well as their ability to think, learn, and communicate, affect their likelihood to be productive and active citizens as adults. Mathematics and reading achievement test scores are important measures of students' skills in these subject areas, as well as good indicators of overall achievement in school. To assess progress in mathematics and reading, the National Assessment of Educational Progress (NAEP) measures national trends in the academic performance of students in grades 4, 8, and 12.

Indicator ED2.A

Average mathematics scale scores for students in grades 4, 8, and 12, selected years 1990–2005



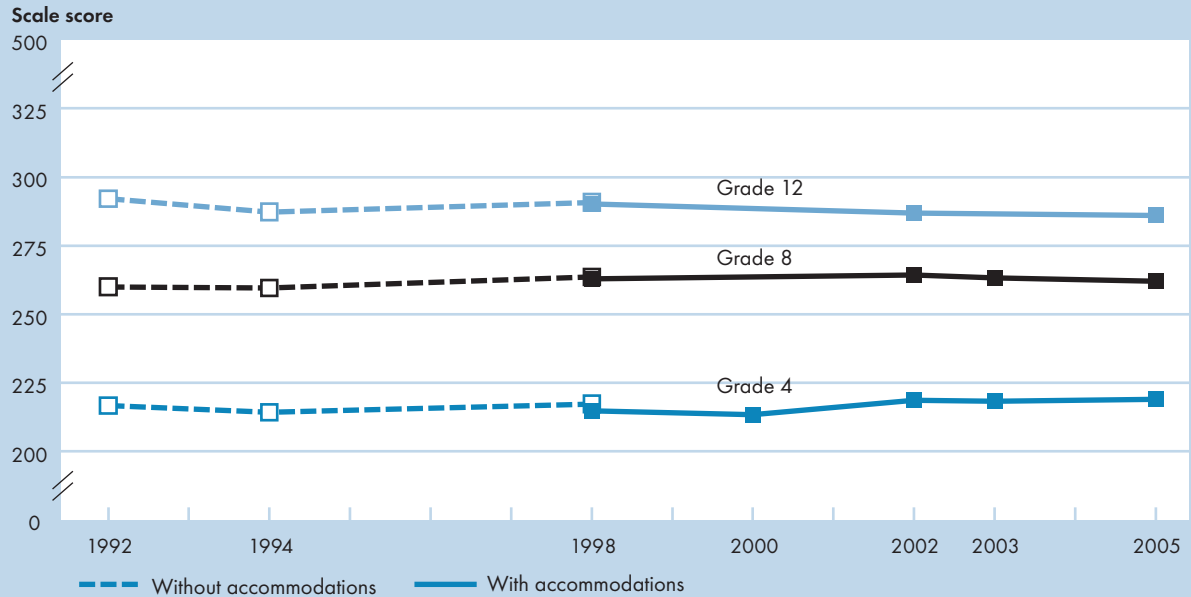
NOTE: Data are available for 1990, 1992, 1996, 2000, 2003, and 2005, although the 2003 assessment only included grades 4 and 8. The 2005 assessment included a 12th-grade component, but the National Assessment Governing Board introduced changes in the 2005 NAEP mathematics framework for grade 12 in both the assessment content and administration procedures. As a result, the 12th-grade assessment results cannot be compared with those of previous assessments. In early years of the assessment, testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted. In 1996, scores are shown for both the assessments with and without accommodations to show comparability across the assessments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress.

- At grades 4 and 8, average mathematics scores were higher in 2005 than in all previous assessments.
- The 12th-grade NAEP mathematics assessment in 2005 was based on a mathematics framework that was revised to reflect changes in high school mathematics standards and coursework. As a result, the 2005 results cannot be compared with those from previous years.¹⁰³
- In 2005, 36 percent of 4th-graders, 30 percent of 8th-graders, and 23 percent of 12th-graders were at or above the *Proficient* level, indicating solid academic achievement. The percentages of 4th- and 8th-graders at or above *Basic* (indicating partial mastery of prerequisite knowledge and skills) and *Proficient* and at *Advanced* (indicating superior performance) in mathematics in 2005 were higher than in all previous assessments.¹⁰⁴
- At grades 4, 8, and 12 in 2005, Asian/Pacific Islander and White, non-Hispanic students scored higher on average in mathematics than their Black, non-Hispanic, American Indian/Alaska Native, and Hispanic peers; Hispanic students also had higher average scores than Black, non-Hispanic students.

Indicator ED2.B

Average reading scale scores for students in grades 4, 8, and 12, selected years 1992–2005



NOTE: Data are available for 1992, 1994, 1998, 2000, 2002, 2003, and 2005, although the 2000 assessment only included grade 4, and the 2003 assessment only included grades 4 and 8. In early years of the assessment, testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted. In 1998, scores are shown for both the assessments with and without accommodations to show comparability across the assessments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress.

- At grade 4, there was a 2-point increase in the average reading score between 1992 and 2005. At grade 8, there was a 1-point decline between 2003 and 2005, but the 2005 score was 2 points higher than in 1992. The average score at grade 12 was 6 points lower in 2005 than in 1992.
- In 2005, 31 percent of 4th-graders were at or above the *Proficient* achievement level, indicating solid academic achievement, a higher percentage than in 1992. At grade 8, 31 percent of students were at or above *Proficient*, a higher percentage than in 1992. At grade 12, 35 percent were at or above *Proficient* in 2005, a lower percentage than in 1992 and 1998 but not statistically different than in 2002.¹⁰⁴
- In reading, White, non-Hispanic students had higher scores in 2005 than their Black, non-Hispanic and Hispanic peers at grades 4, 8, and 12. There were no changes in the gaps between White, non-Hispanic students and their Black, non-Hispanic or Hispanic peers from 1992 to 2005 at grades 4, 8, and 12.
- Females had higher reading scores than males at grades 4, 8, and 12 in 2005. In mathematics, males outperformed females at grades 4, 8, and 12 in 2005.
- In both mathematics and reading, higher parental education levels were associated with higher achievement scores.¹⁰⁵

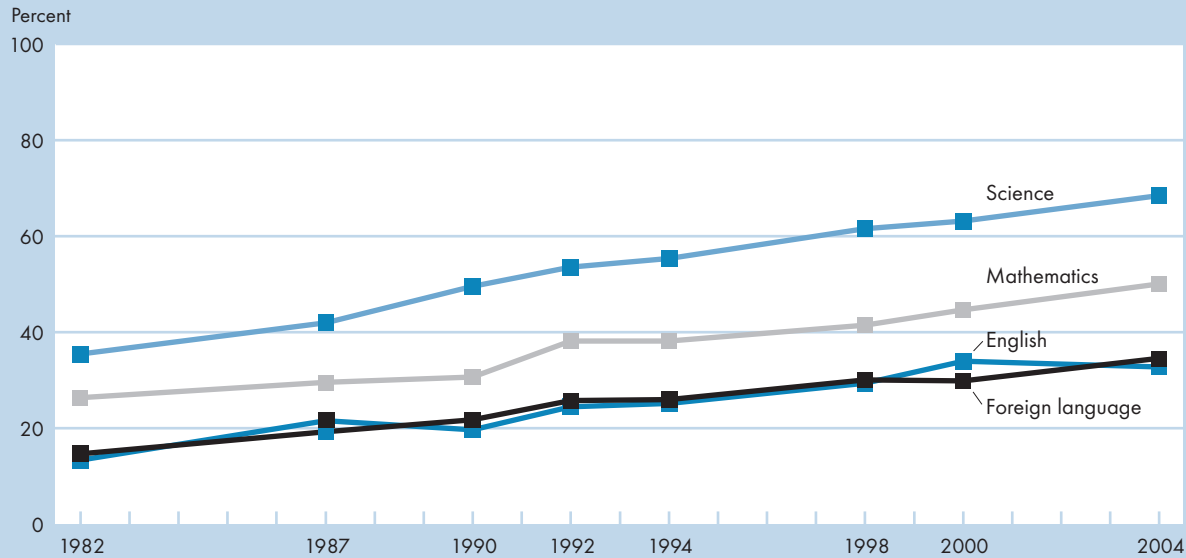
Bullets contain references to data that can be found in Tables ED2.A and ED2.B on pages 151–154. Endnotes begin on page 67.

High School Academic Coursetaking

Since *A Nation at Risk* was published in 1983, school reforms have emphasized increasing the number of academic courses students take in high school. More recent reforms have emphasized increasing the rigor, as well as the amount, of coursetaking. Research suggests a relationship between the level of difficulty of courses students take and their performance on assessments.¹⁰⁶

Indicator ED3

Percentage of high school graduates who had completed advanced coursework in mathematics, science, English, and foreign language, selected years 1982–2004



NOTE: Data are available for 1982, 1987, 1990, 1992, 1994, 1998, 2000, and 2004. Advanced coursework includes the following: mathematics: courses above Algebra II; science: chemistry, physics, or advanced biology; English: more courses at the honors level than at the low academic or regular level; and foreign language: a year 3, year 4, or advanced placement course. For a detailed listing of courses, see Tables ED3.A, ED3.B, ED3.C, and ED3.D.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Survey, National Education Longitudinal Study of 1988, National Assessment of Educational Progress Transcript Study, and Education Longitudinal Study of 2002 High School Transcript Study.

- Half of students who graduated from high school in 2004 had taken at least one advanced mathematics course (defined as a course above Algebra II), almost double the percentage in 1982 (26 percent). The percentage of graduates in 2004 who had taken a nonacademic or low-level academic course as their most advanced mathematics course was 5 percent, compared with 24 percent for graduates in 1982.
- In science, two-thirds (68 percent) of all high school graduates in 2004 had taken a physics, chemistry, or advanced biology course, almost twice the percentage of graduates in 1982 who had taken this level of science course (35 percent). The percentage of graduates whose most advanced science course was classified as a low-level academic course dropped from 27 percent in 1982 to 6 percent in 2004.
- In English, 33 percent of all high school graduates in 2004 had taken honors-level courses, an increase from 13 percent of graduates in 1982. There was no measurable difference between the percentage of graduates in 1982 and 2004 who had taken low-level academic courses in English (10 and 11 percent, respectively).
- In foreign languages, 35 percent of high school graduates had taken a year 3, year 4, or advanced placement course in 2004, double the percentage in 1982 (15 percent). Fifteen percent of high school graduates in 2004 had not taken any foreign language course, compared with 46 percent of graduates in 1982.
- While the level of high school academic coursetaking has risen since 1982, there has not been any improvement during this time in 12th-graders' scores on the National Assessment of Educational Progress.¹⁰⁷

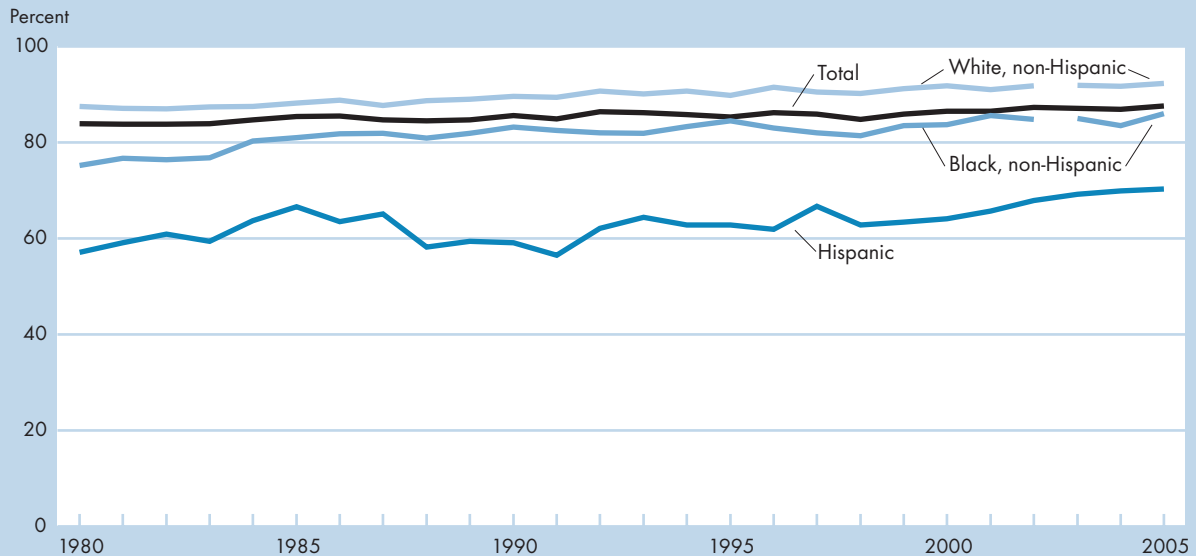
Bullets contain references to data that can be found in Tables ED3.A–ED3.D on pages 155–158. Endnotes begin on page 67.

High School Completion

A high school diploma or its equivalent represents acquisition of the basic reading, writing, and mathematics skills a person needs to function in modern society. The percentage of young adults ages 18–24 with a high school diploma or an equivalent credential is a measure of the extent to which young adults have completed a basic prerequisite for many entry-level jobs and for higher education.

Indicator ED4

Percentage of adults ages 18–24 who have completed high school by race and Hispanic origin, 1980–2005



NOTE: Percentages are based only on those not currently enrolled in high school or below. Prior to 1992, this indicator was measured as completing 4 or more years of high school rather than the actual attainment of a high school diploma or equivalent. From 1980 to 2002, the 1977 OMB Standards for Data on Race and Ethnicity were used to classify persons into one of the following four racial groups: White, Black, American Indian or Alaska Native, or Asian or Pacific Islander. From 2003 onward, the revised 1997 OMB standards were used. Persons could select one or more of five racial groups: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. Data from 2003 onward are not directly comparable with data from earlier years. In addition, note that data on race and Hispanic origin are collected separately, but are combined for reporting.

SOURCE: U.S. Census Bureau, Current Population Survey (CPS), October Supplement (1980–2005).

- In 2005, 88 percent of young adults ages 18–24 had completed high school with a diploma or an alternative credential such as a General Education Development (GED) certificate. The high school completion rate has increased slightly since 1980, when it was 84 percent.
- The rate at which Black, non-Hispanic youth completed high school increased between 1980 and 1990, from 75 percent to 83 percent. It has fluctuated since then, and was at 86 percent in 2005. Among White, non-Hispanics, the high school completion rate increased from 88 percent in 1980 to 92 percent in 2002. It then remained stable through 2005.
- Hispanic youth have had a consistently lower high school completion rate than White, non-Hispanic and Black, non-Hispanic youth. Nonetheless, the high school completion rate for Hispanic youth has increased from 57 percent in 1980 to 70 percent in 2005.
- Most young adults complete high school by earning a regular high school diploma. Others complete high school by earning an alternative credential, such as a GED. Between 1990 and 1999, the diploma rate declined from 81 percent to 77 percent. In comparison, the alternative credential rate increased from 5 to 9 percent.¹⁰⁸

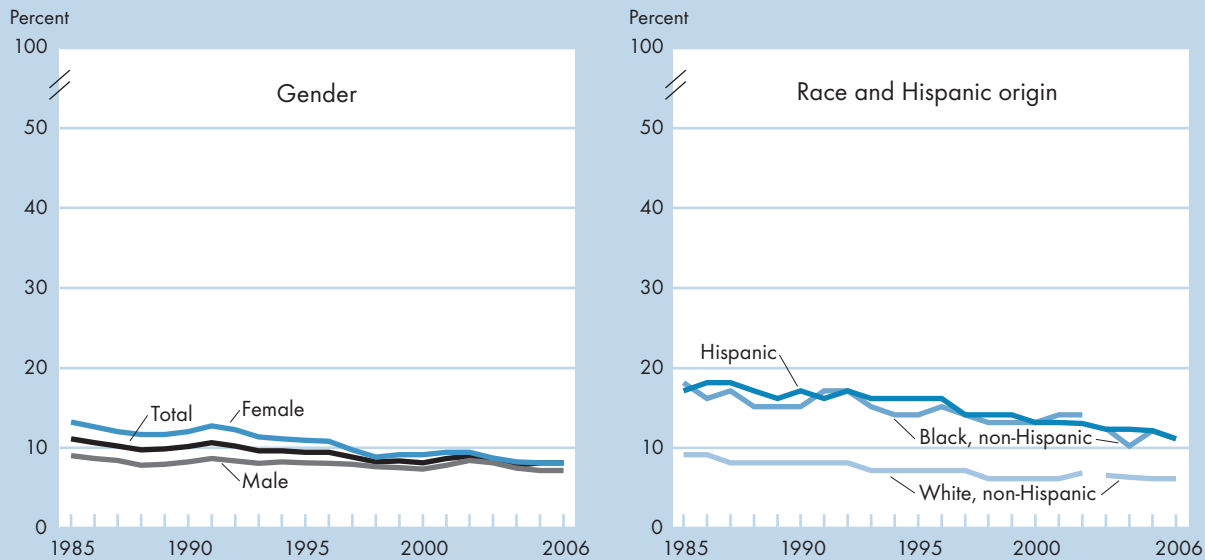
Bullets contain references to data that can be found in Table ED4 on page 159. Endnotes begin on page 67.

Youth Neither Enrolled in School Nor Working

Youth ages 16–19 who are neither in school nor working are detached from both of these core activities that usually occupy teenagers during their transition from adolescence to adulthood. Such detachment, particularly if it lasts for several years, puts youth at increased risk of having lower earnings and a less stable employment history than their peers who stayed in school, secured jobs, or both.¹⁰⁹ The percentage of youth who are not enrolled in school and not working is one measure of the proportion of young people who are at risk of limiting their future prospects.

Indicator ED5

Percentage of youth ages 16–19 who are neither enrolled in school nor working by gender, and race and Hispanic origin, 1985–2006



NOTE: For data before 2003, the 1977 OMB Standards for Data on Race and Ethnicity were used to classify persons into one of the following four racial groups: White, Black, American Indian or Alaskan Native, or Asian or Pacific Islander. The revised 1997 OMB standards were used for data for 2003 to 2006. Persons could select one or more of five racial groups: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. Included in the total, but not shown separately, are American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Two or more races. From 2003 onward, people who responded to the question on race indicated only one race unless otherwise specified. Data from 2003 onward are not directly comparable with data from earlier years. Data on race and Hispanic origin are collected separately. Persons of Hispanic origin may be of any race.

SOURCE: U.S. Bureau of Labor Statistics, Current Population Survey.

- In an average week during the 2006 school year, about 8 percent of youth ages 16–19 were neither enrolled in school nor working.
- The proportion of youth neither enrolled in school nor working has been on a downward trend, and most of the decline has occurred among females. In 1991, 13 percent of young females were neither in school nor working; by 2006, this proportion had decreased to 8 percent.
- Black, non-Hispanic youth and Hispanic youth are more likely to be neither enrolled nor working than White, non-Hispanic youth. In 2006, 11 percent of Hispanic youth and 11 percent of Black, non-Hispanic youth were neither in school nor working, compared with 6 percent of White, non-Hispanic youth.
- Older youth, ages 18–19, are more than three times as likely to be detached from these activities as youth ages 16–17. In 2006, 13 percent of youth ages 18–19 were neither enrolled in school nor working, compared with 3 percent of youth ages 16–17.
- The percentage of youth who were both enrolled in school and employed was 25 percent in 2006, down from 31 percent in 1999.

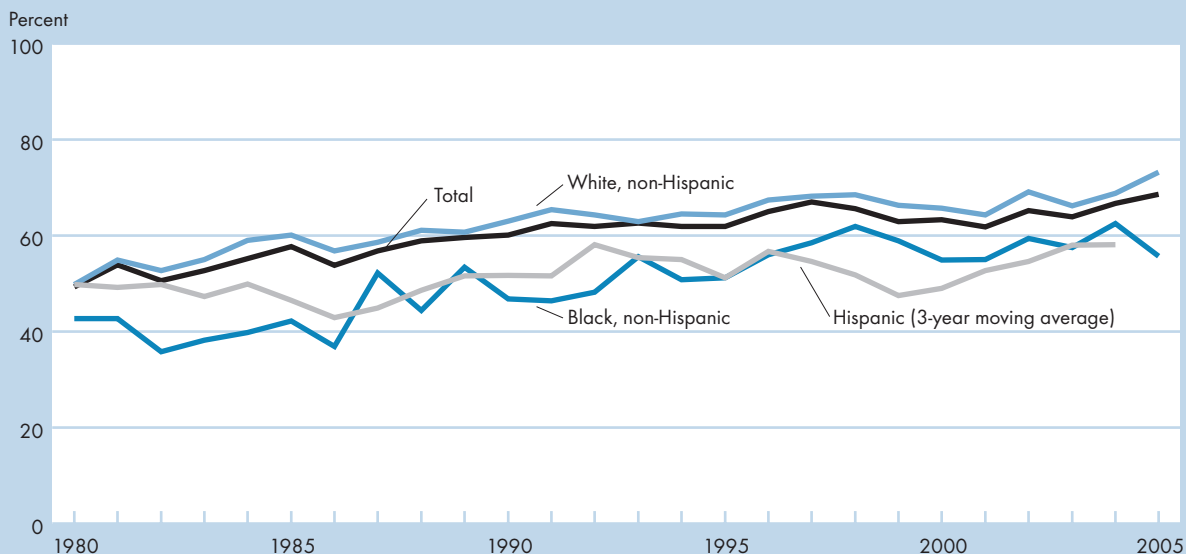
Bullets contain references to data that can be found in Tables ED5.A and ED5.B on pages 160–161. Endnotes begin on page 67.

College Enrollment

A college education generally enhances a person's employment prospects and increases his or her earning potential.¹¹⁰ The percentage of high school completers who enroll in college in the fall immediately after high school is one measure of the accessibility of and value placed on a college education by high school completers.¹¹¹

Indicator ED6

Percentage of high school completers who were enrolled in college the October immediately after completing high school, by race and Hispanic origin, 1980–2005



NOTE: A 3-year moving average is the average of the estimates for the year prior to the reported year, the reported year, and the following year. Thus a moving average cannot be calculated for the most recent year.

SOURCE: U.S. Census Bureau, Current Population Survey (CPS), October Supplement (1980–2005).

- In 2005, 69 percent of high school completers enrolled immediately in a 2-year or 4-year college.¹¹¹
- Between 1980 and 2005, the rate of immediate college enrollment has trended upward from 49 percent to 69 percent; however, the rate has fluctuated from year to year.
- In 1980, 50 percent of White, non-Hispanic high school completers immediately enrolled in college; this rate increased to 69 percent by 1998, but decreased to 64 percent by 2001 before increasing again to 73 percent by 2005.
- In 1980, the immediate enrollment rate for Black, non-Hispanics was 43 percent; this rate increased to 56 percent in 2005.
- For Hispanics, the immediate college enrollment rate has fluctuated greatly since 1980, very likely due to small sample sizes. For this reason, a 3-year moving average is used to measure the trend. Even so, due to large standard errors, there is no measurable difference between the moving average in 1980 (50 percent) and 2004 (58 percent).
- From 1980 to 2005, the immediate enrollment rate for male high school completers increased from 47 percent to 67 percent, while for female high school completers it increased from 52 percent to 70 percent.
- Between 1980 and 1990, there were no statistically significant differences between the immediate enrollment rates for males and females. Starting in 1996, however, the female rate has been significantly greater than the male rate every year except 1999, 2001, and 2005, when apparent differences were not statistically significant.

Bullets contain references to data that can be found in Table ED6 on page 162. Endnotes begin on page 67.

Indicator Needed

Education

Regular, periodic data collections are needed to collect information on young children's cognitive, social, and emotional development.

- *Early childhood development.* Although this report offers indicators of young children's exposure to reading and early childhood education, a regular source of data is needed to monitor specific social, intellectual, and emotional skills of preschoolers over time. One assessment of kindergartners' skills and knowledge was presented as a special feature in *America's Children, 2000*.

A young child with dark hair is smiling and looking towards the camera. The child is wearing a light-colored shirt. The background is a soft-focus image of a child's legs and feet, with a pattern of white stars on a blue background. The entire image has a light blue overlay.

Health

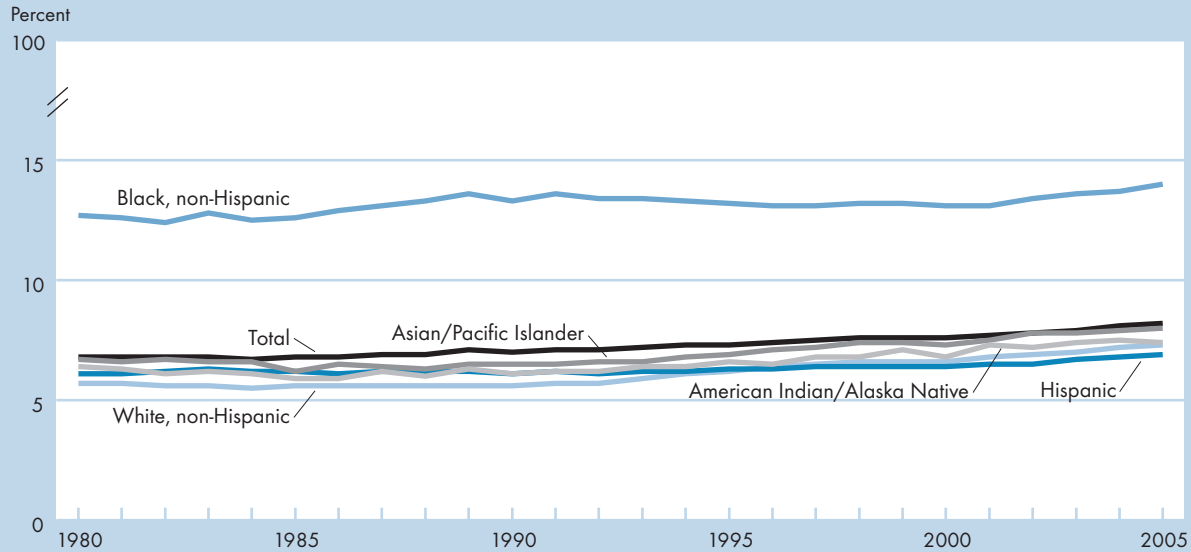
The World Health Organization defines health as a “state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.” This section presents indicators of several important determinants of child health. Some of the indicators in this section relate to birth outcomes such as low birthweight and infant mortality. Other indicators describe key health conditions, including emotional or behavioral difficulties, overweight, and asthma. The indicator on activity limitation presents a global measure that gauges the effect of chronic health conditions on children’s functioning.

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.^{29,112,113} 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 HEALTH1

Percentage of infants born with low birthweight by mother's race and Hispanic origin, 1980–2005



NOTE: Data for 2005 are preliminary.

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

- The percentage of infants with low birthweight was 8.2 in 2005, up from 7.9 percent in 2003 and 8.1 percent in 2004, and has increased slowly but steadily since 1984 (6.7 percent). The percentage for 2005 was the highest since 1968.^{6,10}
- The percentage of Black, non-Hispanic infants with low birthweight 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 13.1 and 13.6 percent, but the percentage rose to 14.0 in 2005. Infants of other racial and ethnic groups also experienced increases between 1990 and 2005. Among White, non-Hispanic infants, the rate rose from 5.6 to 7.3; among Hispanic infants, it rose from 6.1 to 6.9; among Asians/Pacific Islanders, it rose from 6.5 to 8.0; and among American Indians/Alaska Natives, it rose from 6.1 to 7.4.
- The percentage of infants with low birthweight varies widely among Hispanic subgroups. Data for 2004 indicate that among Hispanic women, those of Mexican origin had the lowest percentage low-birthweight infants (6.4 percent) and Puerto Ricans had the highest percentage (9.8 percent).
- The percentage of infants born with very low birthweight (less than 1,500 grams, or 3 lb. 4 oz.) has increased gradually in recent years. In 2005, 1.49 percent of infants were very low birthweight, up from 1.48 percent in 2004, 1.42–1.46 percent from 1997 to 2003, 1.28–1.37 percent from 1989 to 1996, and 1.16–1.24 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.^{6,10,112,113} Multiple births are much more likely than singletons to be of low birthweight: 57 percent of twins and 94 percent of triplets, compared with 6 percent of singletons, were of low birthweight in 2004. However, even among singletons, low birthweight has increased.⁶
- Changes in the obstetric management of pregnancy with increases in induction and cesarean delivery, and an increase in the use of assisted reproductive technologies (ART) may also have played a role in the increase in low birthweight.¹¹⁴

Bullets contain references to data that can be found in Table HEALTH1 on pages 163–164. Endnotes begin on page 67.

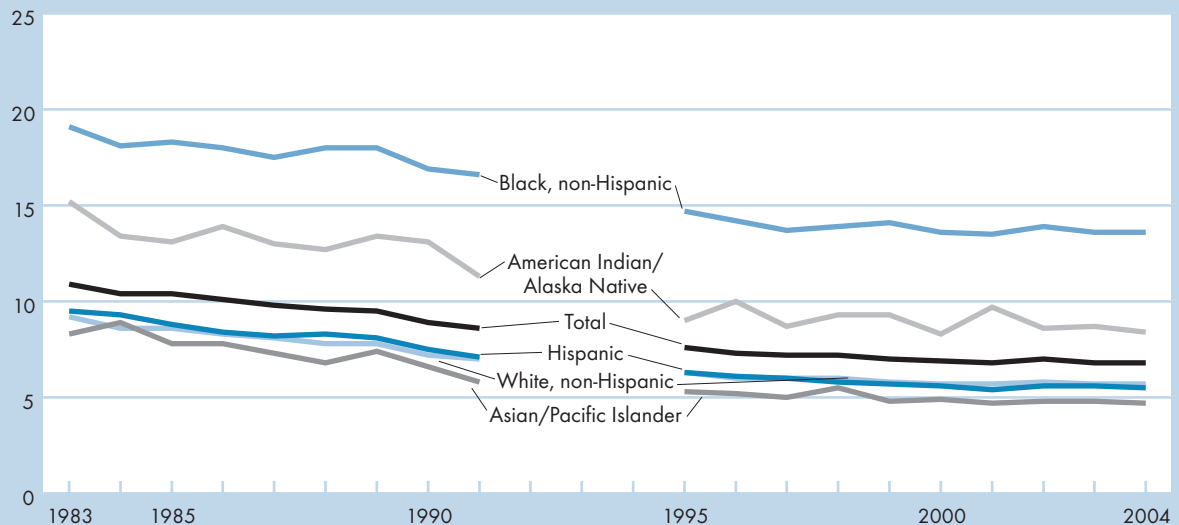
Infant Mortality

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.¹¹⁵ 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 HEALTH2

Death rates among infants by race and Hispanic origin of mother, 1983–2004

Infant deaths per 1,000 live births



NOTE: Data are available for 1983–1991 and 1995–2004 only. 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 infant mortality rate was 6.8 deaths per 1,000 live births in 2004, unchanged from the rate in 2003.
- 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 2004, the Black, non-Hispanic infant mortality rate was 13.6 infant deaths per 1,000 live births and the American Indian/Alaska Native rate was 8.4, both higher than the rates among White, non-Hispanic (5.7), Hispanic (5.5), and Asian/Pacific Islander (4.7) infants.
- Infant mortality rates also vary within racial and ethnic populations. For example, among Hispanics in the United States, the infant mortality rate for 2004 ranged from 4.6 deaths per 1,000 live births for infants of Cuban origin to a high of 7.8 for Puerto Rican infants.

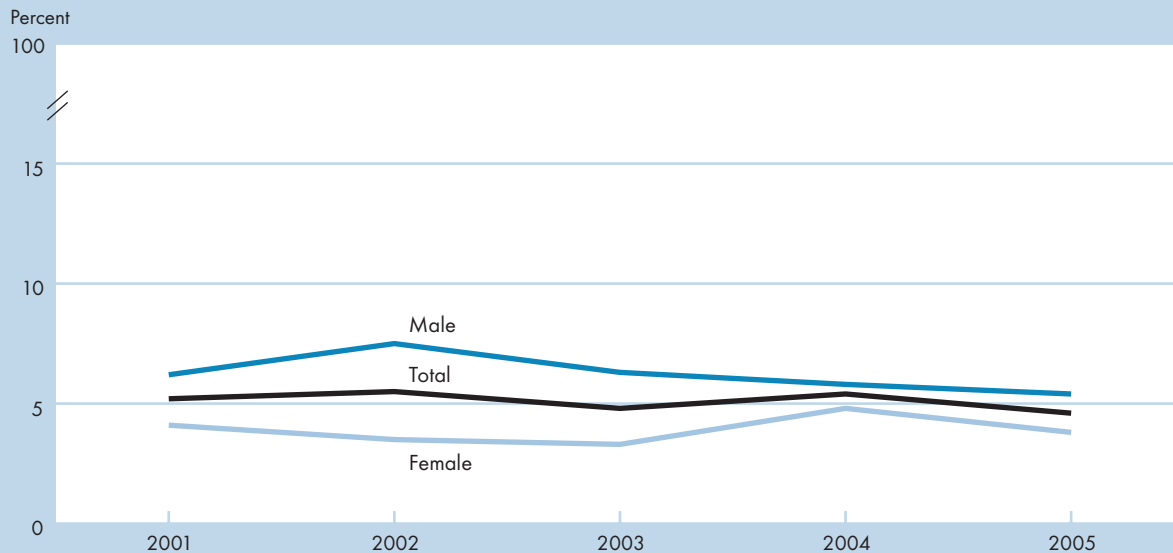
Bullets contain references to data that can be found in Table HEALTH2 on page 165. Endnotes begin on page 67.

Emotional and Behavioral Difficulties

Good emotional and behavioral health enhances a child’s sense of well-being, leads to satisfying social relationships at home and with peers, and leads to achievement of full academic potential.¹¹⁶ Children with emotional or behavioral difficulties may have problems managing their emotions, focusing on tasks, and/or controlling their behavior. These difficulties, which may persist throughout a child’s development and can lead to lifelong disability, are usually noticed first by parents.¹¹⁷ Parents’ reports are crucial to alerting doctors about their child’s emotional and behavioral difficulties and to obtaining mental health services.¹¹⁸

Indicator HEALTH3

Percentage of children ages 4–17 reported by a parent to have serious emotional or behavioral difficulties by gender, 2001–2005



NOTE: Children with serious emotional or behavioral difficulties are defined as those whose parent responded “yes, definite” or “yes, severe” to the following question on the Strengths and Difficulties Questionnaire (SDQ): “Overall, do you think that (child) has difficulties in any of the following areas: emotions, concentration, behavior, or being able to get along with other people?” Response choices were: (1) no; (2) yes, minor difficulties; (3) yes, definite difficulties; (4) yes, severe difficulties. These difficulties may be similar to but do not equate with the Federal definition of serious emotional disturbances (SED), used by the Federal government for planning purposes.

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

- In 2005, slightly less than 5 percent of children ages 4–17 were reported by a parent to have serious difficulties with emotions, concentration, behavior, or being able to get along with other people.
- From 2001–2005, the percentage of children with serious emotional or behavioral difficulties remained stable at about 5 percent.
- From 2001–2005, the percentage of children with serious emotional or behavioral difficulties differed by gender and age. More males than females were reported by a parent to have difficulties. Children ages 15–17 generally had the highest rates of serious emotional or behavioral difficulties.
- In 2005, 7 percent of children living below the poverty level had serious emotional or behavioral difficulties, compared with 5 percent of children in near-poor families (those with family incomes of 100–199 percent of the poverty level) and 4 percent of children in non-poor families (those with family incomes of 200 percent or more of the poverty level).¹¹⁹

- Among the parents of children with serious (definite or severe) difficulties, 81 percent reported contacting a health care provider or school staff about their child’s difficulties, 40 percent reported their child was prescribed medication for their difficulties, and 47 percent reported their child had received treatment or help other than medication.¹²⁰

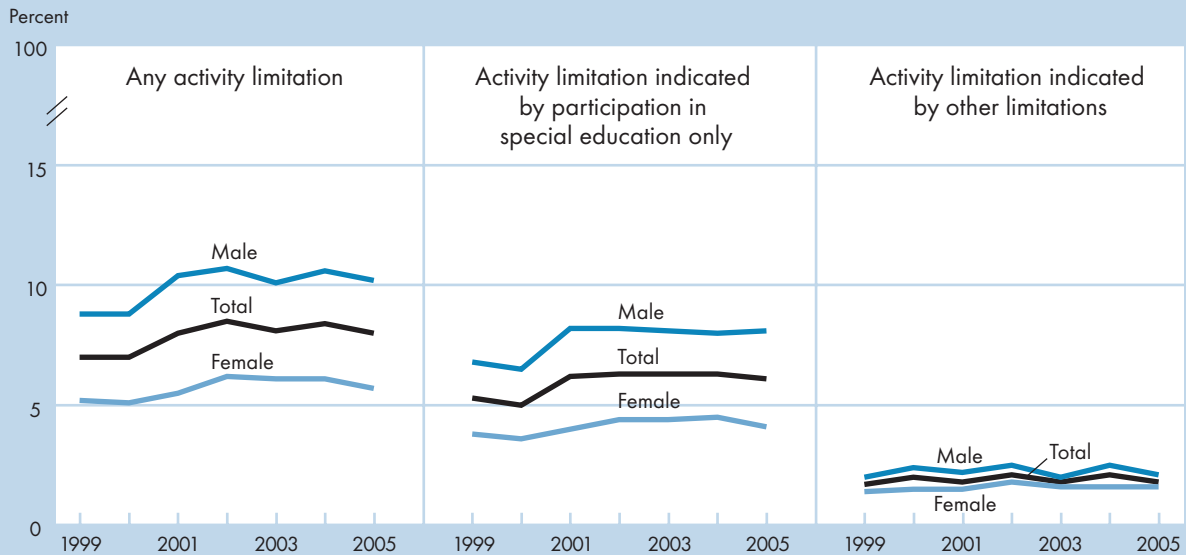
Bullets contain references to data that can be found in Tables HEALTH3.A and HEALTH3.B on pages 166–167. Endnotes begin on page 67.

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 perform regular school work and 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.¹²¹

Indicator HEALTH4

Percentage of children ages 5–17 with activity limitation resulting from one or more chronic health conditions by gender, 1999–2005



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. Chronic health conditions are conditions that once acquired are not cured or have a duration of three months or more.

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

- In 2005, approximately 8 percent of children ages 5–17 were reported by parents to have activity limitation due to chronic conditions. Six percent were identified as having activity limitation solely by their participation in special education, and 2 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.
- In 2005, 11 percent of children in poor and 9 percent of children in near-poor families (those with family incomes of less than 100 percent and 100–199 percent of the poverty level, respectively) had activity limitation, 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, non-Hispanic and Black, non-Hispanic children to have a parental report of activity limitation.³

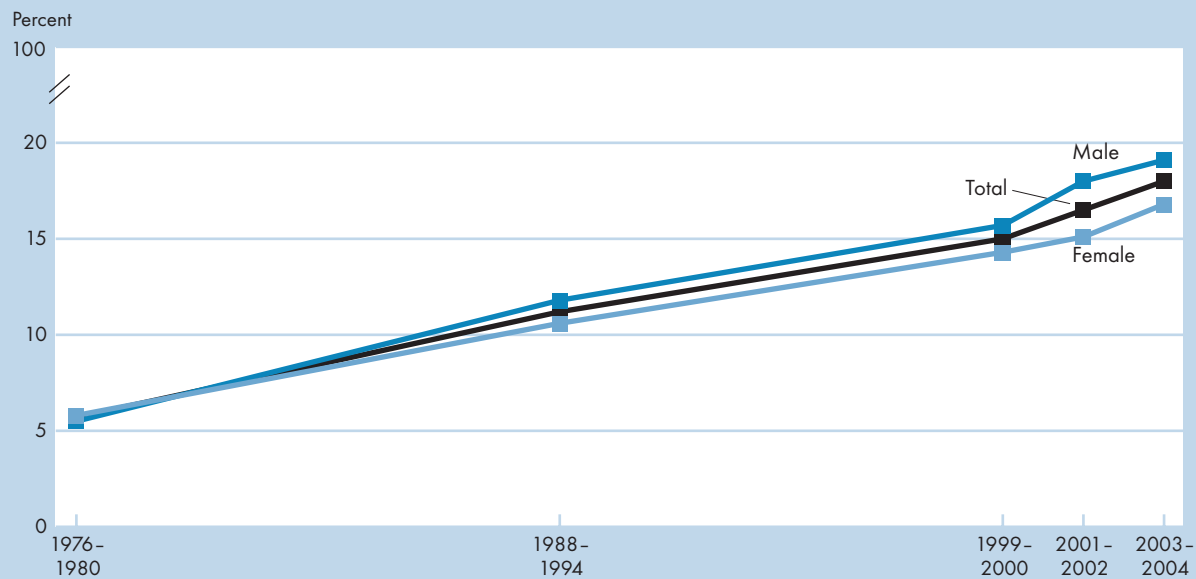
Bullets contain references to data that can be found in Table HEALTH4 on page 168. Endnotes begin on page 67.

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.^{122,123} 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.¹²⁴ The prevalence of overweight among U.S. children changed relatively little from the early 1960s through 1980; however, since 1980 it has sharply increased.¹²⁵ Between 1999 and 2004, being overweight increased in both boys and girls.¹²⁶ Recent national estimates indicate that just 36 percent of adolescents meet current physical activity recommendations and only about 20 percent eat the recommended five or more servings of fruits and vegetables per day.¹²⁷ 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 being overweight.

Indicator HEALTH5

Percentage of children ages 6–17 who are overweight by gender, selected years 1976–2004



NOTE: 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. During the period 1976–1980, only 6 percent of children ages 6–17 were overweight. During 1988–1994, this proportion had risen to 11 percent, and it continued to climb to 18 percent during 2003–2004.
- During 2003–2004, Black, non-Hispanic females ages 6–17 were at particularly high risk of being overweight (25 percent), compared with White, non-Hispanic and Mexican American females (16 percent and 17 percent, respectively).¹²⁸

- Among adolescent males ages 12–17, virtually no differences existed between racial and ethnic groups during 2003–2004 (19 percent of White, non-Hispanic, 19 percent of Black, non-Hispanic, and 19 percent of Mexican American males ages 12–17 were overweight).¹²⁸

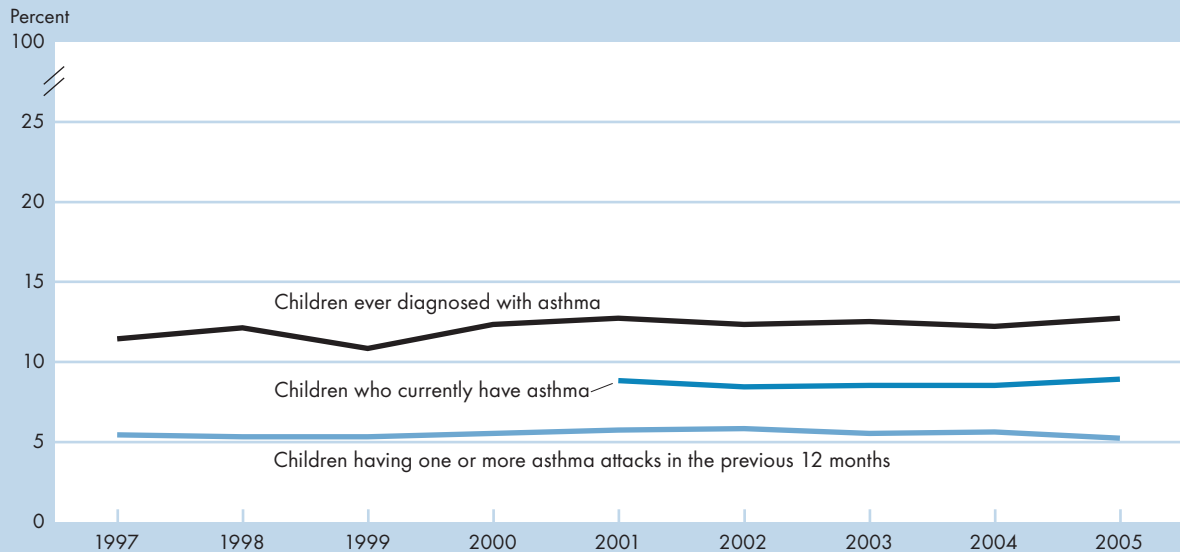
Bullets contain references to data that can be found in Table HEALTH5 on pages 169–170. Endnotes begin on page 67.

Asthma

Asthma is a disease of the lungs that can cause wheezing, difficulty in breathing, and chest pain. It is one of the most common chronic diseases among children and is costly in both health and monetary terms. Asthma varies greatly in severity. Some children who have been diagnosed with asthma may not experience any serious respiratory effects. Other children may have mild symptoms or may respond well to management of their asthma, typically through the use of medication. Some children with asthma may suffer serious attacks that greatly limit their activities, result in visits to emergency rooms or hospitals, or, in rare cases, cause death. Environmental factors such as air pollution and secondhand tobacco smoke, along with infections, exercise, and allergens, can trigger asthma attacks in children who have the disease.^{129,130,131}

Indicator HEALTH6

Percentage of children ages 0–17 with asthma, 1997–2005



NOTE: Children are identified as having asthma by asking parents, “Has a doctor or other health professional EVER told you that your child has asthma?” If the parent answers YES to this question, they are then asked (1) “Does your child still have asthma?” and (2) “During the past twelve months, has your child had an episode of asthma or an asthma attack?” The question “Does your child still have asthma?” was introduced in 2001.

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

- In 2005, about 13 percent of children had been diagnosed with asthma at some time in their lives.
- About 9 percent of children were reported to currently have asthma in 2005. These include children with active asthma symptoms and those whose asthma is well controlled.
- Approximately 5 percent of all children had one or more asthma attacks in the previous 12 months. These children have ongoing asthma symptoms that could put them at risk for poorer health outcomes, including hospitalizations and death. About 3 children out of 5 who currently have asthma have ongoing asthma symptoms.
- In 2005, about 13 percent of Black, non-Hispanic children were reported to currently have asthma, compared with 8 percent of White, non-Hispanic and 9 percent of Hispanic children. Disparities exist within the Hispanic population such that 20 percent of Puerto Rican children were reported to currently have asthma, compared with 7 percent of children of Mexican origin.

- From 1997 to 2005, the trends for these three asthma indicators remained fairly stable. Between 1980 and 1995, childhood asthma, as measured by the question, “During the past twelve months, did anyone in the family have asthma?” more than doubled (from about 4 percent in 1980 to approximately 8 percent in 1995). Methods for measurement of childhood asthma changed in 1997, so earlier data cannot be compared to data from 1997–2005.

Bullets contain references to data that can be found in Tables HEALTH6.A and HEALTH6.B on pages 171. Endnotes begin on page 67.

Indicator Needed

Health

National indicators on several key dimensions of health are not yet available because of the difficulties in reaching consensus on relevant definitions and measurements. The following health-related area has been identified as a priority 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 policymakers and researchers, but there is little agreement regarding which aspects of functioning should be included or how they should be measured.