

## HC 2.1

**HEALTHY BIRTHS**

A healthy birth is defined here as a birth with the following characteristics: a five-minute Apgar<sup>25</sup> score of 9 or more out of 10, weight at birth of at least 2,500 grams (5lb. 8oz.), a gestational age of at least 37 weeks, and maternal receipt of prenatal care within the first trimester.

**Increasing Percentages of Healthy Births.** Table HC 2.1 reports the percentage of all births qualifying as healthy births by race and ethnic group, and by the mother's marital status and educational background. The table shows an increase in the percentage of all healthy births between 1985 and 1995, as well as increases for each population subgroup presented. The percentage of all births qualifying as healthy increased from 59.1 percent in 1985 to 66.6 percent in 1995.

**Continued Disparities Across Population Subgroups.** While healthy births are increasing for all the subgroups presented in Table HC 2.1, there are also persistent disparities across subgroups (see Figure HC 2.1).

- In 1995, 51.3 percent of births to black women were defined as healthy, compared with 56.3 percent of births to Hispanic women and 70.1 percent of births to white women.
- In 1995, 73.3 percent of births to married women were healthy, compared with 52.2 percent of births to single women.
- In 1995, 70.6 percent of births to women with at least a high school education were healthy, compared with 50 percent of births to women with less than a high school education.

Table HC 2.1

**Percentage of all births in the United States defined as healthy,<sup>a</sup> by mother's race and Hispanic origin,<sup>b</sup> marital status,<sup>c</sup> and educational attainment: selected years, 1985-1995**

	1985	1991	1994	1995
<b>Total</b>	59.1	61.1	65.9	66.6
<b>Race and Hispanic origin<sup>b</sup></b>				
White	62.7	65.0	69.8	70.1
Black	41.5	43.3	49.7	51.3
Hispanic	48.6	49.8	55.4	56.3
<b>Marital status</b>				
Married	65.0	68.6	73.0	73.3
Single <sup>c</sup>	37.9	43.1	50.6	52.2
<b>Education</b>				
High school or more	64.0	67.1	70.1	70.6
Less than high school	40.0	43.3	48.8	50.0

<sup>a</sup>Healthy birth is defined as follows: 5-minute Apgar score of 9 or above, birth weight of at least 2,500 grams (5lb. 8oz.), gestational age of 37 weeks or more, and prenatal care in the first trimester.

<sup>b</sup>Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

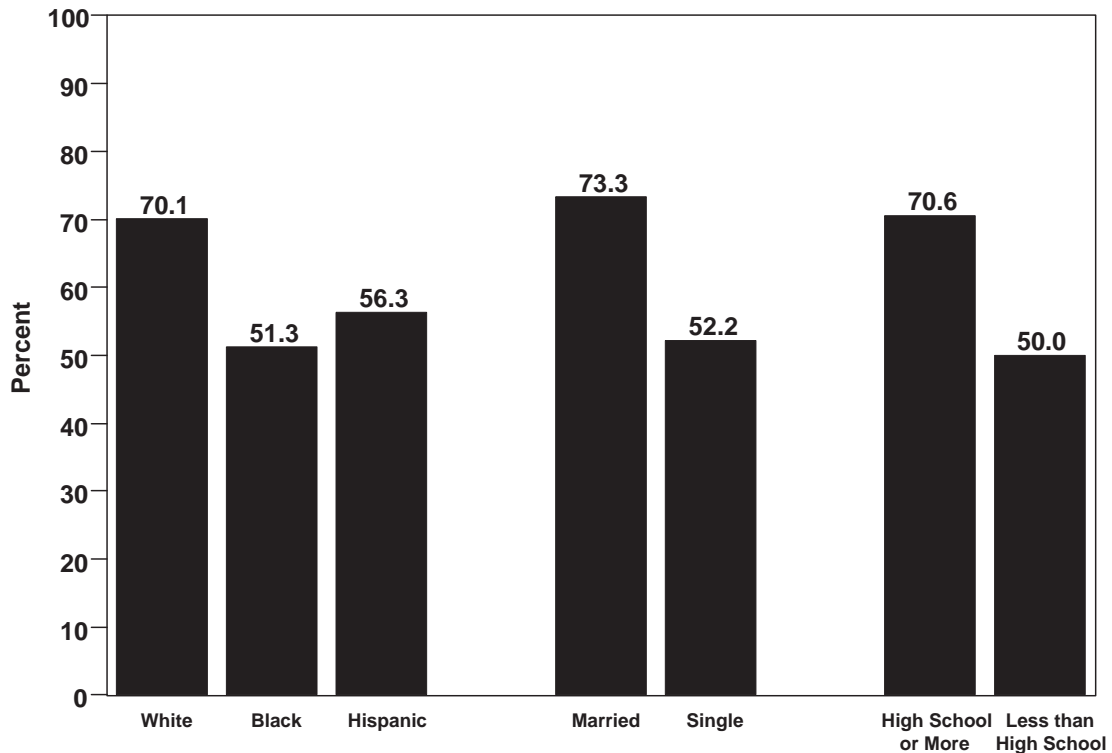
<sup>c</sup>Single status refers to women who have never been married, or are divorced or widowed.

Sources: 1985 and 1991 data from Morrison, D.R. "Healthy Birth Index." Final Report. Submitted to the Annie E. Casey Foundation, Kids Count Indicator Development Project. Washington, D.C.: Child Trends, Inc., 1994; Special tabulations for 1994 and 1995 birth data by Sally C. Curtin, National Center for Health Statistics.

<sup>25</sup>The Apgar score is a numerical expression of the physical condition of an infant shortly after delivery. The infant is rated 0, 1, or 2 on color, heart rate, reflex irritability, muscle tone, and breathing. The maximum score is 10, and a score of 4 or less indicates examination and treatment are warranted. As defined in Apgar, V., Holiday, D.A., James, L.S., Weisbrot, I.N., and Berrien, C. 1953. "Evaluation of the Newborn Infant-2nd Report." *Current Researches in Anesthesia and Analgesia* 32: 260-267.

Figure HC 2.1

Percentage of all births in the United States defined as healthy,<sup>a</sup> by mother's race and Hispanic origin,<sup>b</sup> marital status,<sup>c</sup> and educational attainment: 1995



<sup>a</sup>Healthy birth is defined as follows: 5-minute Apgar score of 9 or above, birth weight of at least 2,500 grams (5lb. 8oz.), gestational age of 37 weeks or more, and prenatal care in the first trimester.

<sup>b</sup>Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

<sup>c</sup>Single status refers to women who have never been married, or are divorced or widowed.

Sources: 1985 and 1991 data from Morrison, D.R. "Healthy Birth Index." Final Report. Submitted to the Annie E. Casey Foundation, Kids Count Indicator Development Project. Washington, D.C.: Child Trends, Inc., 1994; Special tabulations for 1994 and 1995 birth data by Sally C. Curtin, National Center for Health Statistics.

## HC 2.2

**LOW BIRTH WEIGHT**

Low birth-weight infants [babies born weighing less than 2,500 grams (5lb. 8oz.)] face an increased risk of physical and developmental complications and death.<sup>26</sup> These babies account for nearly two-thirds of all neonatal deaths (deaths under 28 days of age) and are 21 times more likely to die during the first year than are heavier infants.<sup>27</sup>

Although slight declines are seen in the 1980s, overall the percentage of all infants born at low birth weight has remained relatively constant since 1970, when 7.9 percent of infants were born at low birth weight, compared with 7.4 percent in 1996 (see Table HC 2.2).<sup>28</sup>

**Differences by Race and Ethnicity.** Low birth weight rates are consistently higher among black infants than among other races and Hispanics. The percentages of low birth-weight infants among whites, American Indians/Alaskan Natives, Asians/Pacific Islanders, and Hispanics have remained within one percentage point of each other and have mostly hovered around 6 to 7 percent over the last two decades. The percentage of low birth-weight black infants is nearly double that of other groups. Preliminary data for 1996 show a percentage of low birth-weight infants of 13 percent among blacks, and 6.3 percent among both whites and Hispanics.

Among Asians/Pacific Islanders and Hispanics, there are subgroup differences. Since 1970, Chinese women have consistently had the lowest percentage of low-weight births, and Filipino women have had the highest among Asians/Pacific Islander women. In 1995 (the latest year for which data are available), these percentages were 5.3 percent and 7.8 percent, respectively. Among Hispanics, Mexican-American women have generally had the lowest percentage of low birth-weight infants (ranging from 5.6 to 5.8 percent), and Puerto Rican women have had the highest (ranging from 8.7 to 9.4 percent).

**Differences by Age.** For women in all age groups, there was a decline in the percentage of low-weight births between 1970 and 1985. Since 1985, however, that percentage increased slightly across nearly all age groups. The following trends, illustrated in Table HC 2.2, are particularly noteworthy:

- Women under age 15 consistently have the highest rates of low-weight births of any age group (see Table HC 2.2). While the percentage of low-weight births to women under age 15 improved between 1970 and 1995, the trend has not been one of consistent improvement. Instead, the percentage of low-weight births to these very young women decreased considerably between 1970 and 1985 — from 16.6 percent to 12.9 percent — but then increased to 13.7 percent by 1994. Preliminary data for 1996 indicate that this percentage has now fallen to a new low of 12.7 percent (see Figure HC 2.2).
- For women in all other age groups, rates of low-weight births have generally stayed within 1.5 percentage points of their 1970 rate.
- Women between the ages of 25 and 29 consistently have the lowest rates of low-weight births.

<sup>26</sup>Disorders relating to short gestation and unspecified low birth weight were the second leading cause of death to infants in 1996, as reported in Ventura, S.J., Peters, K.D., Martin, J.A., and Maurer, J.D. "Births and Deaths: United States, 1996." *Monthly Vital Statistics Report* 46 (1, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997.

<sup>27</sup>MacDorman, M.F. and Atkinson, J.O. "Infant Mortality Statistics from the Linked Birth/Infant Death Data Set-1995 Period Data." *Monthly Vital Statistics Report* 46 (6, Supp.2). Hyattsville, Md.: National Center for Health Statistics, 1998.; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report* 45 (11, Supp.). Hyattsville, Md.: National Center for Health Statistics, 1997.

<sup>28</sup>Data for 1996 are preliminary.

Table HC.2.2

Percentage of all low birth-weight<sup>a</sup> infants born in the United States by mother's race/ethnicity<sup>b</sup> and by age: selected years, 1970-1996<sup>c</sup>

	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996 <sup>c</sup>
<b>Total</b>	7.9	7.4	6.8	6.8	7.0	7.1	7.1	7.2	7.3	7.3	7.4
<b>Race/ethnicity<sup>b</sup></b>											
<b>White<sup>d</sup></b>	6.9	6.3	5.7	5.7	5.7	5.8	5.8	6.0	6.1	6.2	6.3
<b>Black<sup>d</sup></b>	13.9	13.2	12.7	12.7	13.3	13.6	13.3	13.3	13.2	13.1	13.0
<b>American Indian/Alaskan Native<sup>d</sup></b>	8.0	6.4	6.4	5.9	6.1	6.2	6.2	6.4	6.5	6.6	—
<b>Asian/Pacific Islander<sup>d</sup></b>	—	—	6.7	6.2	6.5	6.5	6.6	6.5	6.8	6.9	—
Chinese	6.7	5.3	5.2	5.0	4.7	5.1	5.0	4.9	4.8	5.3	—
Japanese	9.0	7.5	6.6	6.2	6.2	5.9	7.0	6.5	6.9	7.3	—
Filipino	10.0	8.1	7.4	7.0	7.3	7.3	7.4	7.0	7.8	7.8	—
Hawaiian and part Hawaiian	—	—	—	—	7.2	6.7	6.9	6.8	7.2	6.8	—
Other Asian or Pacific Islander	—	—	—	—	6.7	6.7	6.7	6.9	7.1	7.0	—
<b>Hispanic origin<sup>e</sup></b>	—	—	6.1	6.2	6.1	6.1	6.1	6.2	6.3	6.3	6.3
Mexican American	—	—	5.6	5.8	5.5	5.6	5.6	5.8	5.8	5.8	—
Puerto Rican	—	—	9.0	8.7	9.0	9.4	9.2	9.2	9.1	9.4	—
Cuban	—	—	5.6	6.0	5.7	5.6	6.1	6.2	6.3	6.5	—
Central and South American	—	—	5.8	5.7	5.8	5.9	5.8	5.9	6.0	6.2	—
Other and Unknown Hispanic	—	—	7.0	6.8	6.9	7.2	7.2	7.5	7.5	7.5	—
<b>Age</b>											
Under age 15	16.6	14.1	14.6	12.9	13.3	13.7	13.2	13.5	13.7	13.5	12.7
15-19 years	10.5	10.0	9.4	9.3	9.3	9.3	9.3	9.2	9.3	9.3	9.3
20-24 years	7.4	7.1	6.9	6.9	7.1	7.2	7.1	7.2	7.3	7.3	7.4
25-29 years	6.9	6.1	5.8	5.9	6.2	6.3	6.2	6.4	6.4	6.4	6.5
30-34 years	7.5	6.8	5.9	6.1	6.4	6.6	6.5	6.7	6.7	6.7	6.8
35-49 years	8.8	8.4	7.2	7.1	7.4	7.7	7.8	8.1	8.2	8.3	8.3

<sup>a</sup>Before 1979, low birth weight defined as infants weighing 2,500 grams (5lb. 8oz.) or less. From 1979 and beyond, low birth weight defined as infants weighing less than 2,500 grams (5lb. 8oz.).

<sup>b</sup>Birth figures for Hispanic infants in 1980 are based on data from 22 states that reported Hispanic origin on the birth certificate, 23 states and the District of Columbia in 1985, 48 states and the District of Columbia in 1990, 49 states and the District of Columbia in 1992, and 50 states and the District of Columbia since 1993.

<sup>c</sup>Data for 1996 are preliminary.

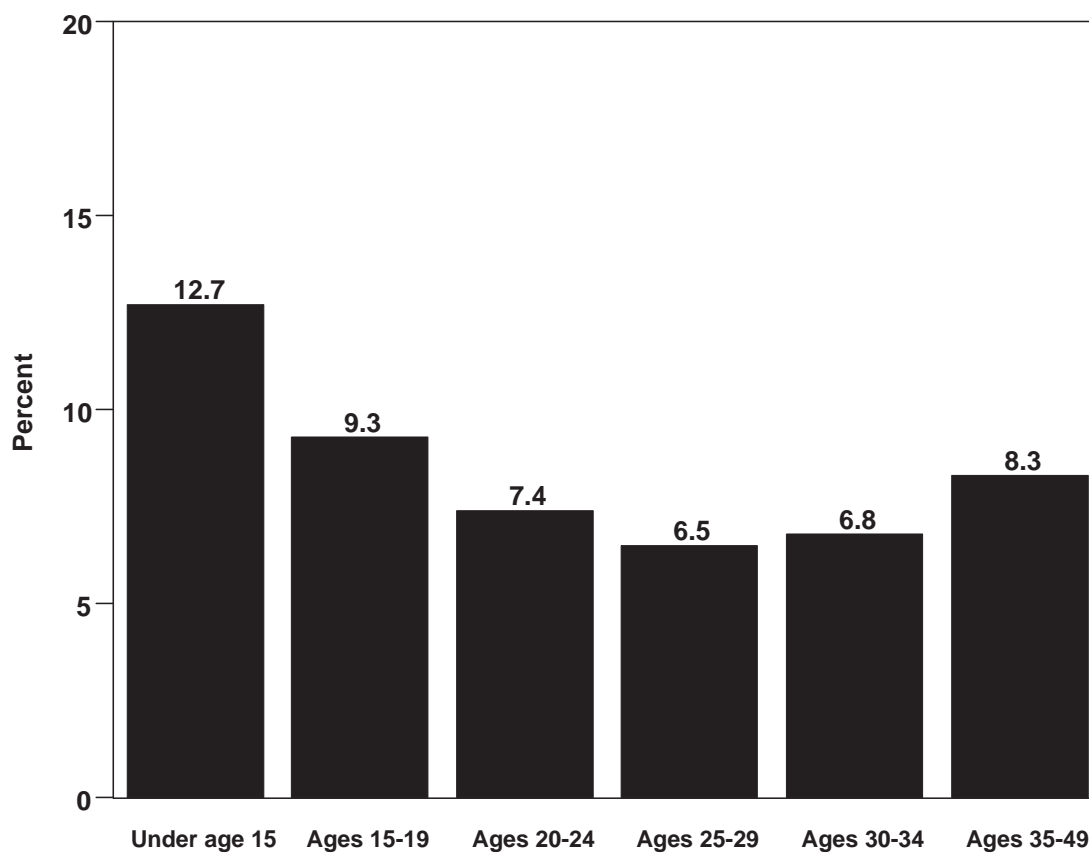
<sup>d</sup>Includes persons of Hispanic origin.

<sup>e</sup>Persons of Hispanic origin may be of any race.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; Ventura, S.J., Peters, K.D., Martin, J.A., and Maurer, J.D. "Births and Deaths: United States, 1996." *Monthly Vital Statistics Report* 46 (1, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report* 45 (11, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997. Also previous issues of this annual report and unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.

Figure HC 2.2

Percentage of all low birth-weight<sup>a</sup> infants born in the United States, by age of mother: 1996<sup>b</sup>



<sup>a</sup>Low birth weight defined as infants weighing less than 2,500 grams (5lb. 8oz.).

<sup>b</sup>Data for 1996 are preliminary.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; Ventura, S.J., Peters, K.D., Martin, J.A., and Maurer, J.D. "Births and Deaths: United States, 1996." *Monthly Vital Statistics Report* 46 (1, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report* 45 (11, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997. Also previous issues of this annual report and unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.



## HC 2.3

**VERY LOW BIRTH WEIGHT**

Very low birth weight infants [babies born weighing less than 1,500 grams (3lb. 4oz.)] are at particularly high risk of severe physical and developmental complications and death. Advances in medical technology in recent years have made it possible for increasing numbers of very low birth weight infants to survive; however, these babies are 69 times more likely to die during the first year of life than babies weighing at least 1,500 grams.<sup>29</sup>

The percentage of infants born at very low birth weight has remained relatively constant for the last 26 years (see Table HC 2.3). Between 1970 and 1989 (not shown), 1.2 percent of all infants were classified as very low birth weight.<sup>30</sup> The proportion then increased slightly to 1.3 percent, where it remained from 1990 to 1995, then to 1.4 percent in 1996.<sup>31</sup>

**Differences by Race and Ethnicity.** The percentage of babies born at very low birth weight varies by race and Hispanic origin (see Table HC 2.3). For white, American Indian/Alaskan Native, and Asian/Pacific Islander infants, the percentage of very low weight births has remained at or about one percent from 1970 through 1995. The same is true of Hispanic infants since 1980. For blacks, the percentage of very low birth weight babies increased from 2.4 percent in 1970 to 3 percent by 1991, where it has remained through 1996.

**Differences by Age.** A woman's age appears to be an important factor in the likelihood of very low birth weight, particularly at the youngest ages. The percentage of very low birth weight infants born to women under age 15 has increased since 1975, reaching its highest proportion in 1993 at 3.6 percent, and then decreasing slightly to 3.2 percent by 1995. The percentage of very low birth weight births among women ages 15 through 19 is lower than the proportion of such births to their younger counterparts, but remains slightly higher than the proportion observed for women age 20 and older.

<sup>29</sup>MacDorman, M.F. and Atkinson, J.O. "Infant Mortality Statistics from the Linked Birth/Infant Death Data Set-1995 Period Data." *Monthly Vital Statistics Report* 46 (6, Supp.2). Hyattsville, Md.: National Center for Health Statistics, 1998.; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report* 45 (11, Supp.). Hyattsville, Md.: National Center for Health Statistics, 1997.

<sup>30</sup>Data for individual years indicate that the rate remained at 1.2 percent through 1989 (not shown).

<sup>31</sup>Data for 1996 are preliminary.

Table HC 2.3

Percentage of all very low birth weight<sup>a</sup> infants born in the United States, by mother's race/ethnicity<sup>b</sup> and by age: selected years, 1970-1996<sup>c</sup>

	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996 <sup>c</sup>
<b>Total</b>	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.4
<b>Race/ethnicity<sup>b</sup></b>											
<b>White<sup>d</sup></b>	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1
<b>Black<sup>d</sup></b>	2.4	2.4	2.5	2.7	2.9	3.0	3.0	3.0	3.0	3.0	3.0
<b>American Indian/Alaskan Native<sup>d</sup></b>	1.0	1.0	0.9	1.0	1.0	1.1	1.0	1.1	1.1	1.1	—
<b>Asian/Pacific Islander<sup>d</sup></b>	—	—	0.9	0.8	0.9	0.8	0.9	0.9	0.9	0.9	—
Chinese	0.8	0.5	0.7	0.6	0.5	0.7	0.7	0.6	0.6	0.7	—
Japanese	1.5	0.9	0.9	0.8	0.7	0.6	0.8	0.7	0.9	0.9	—
Filipino	1.1	0.9	1.0	0.9	1.1	1.0	1.1	1.0	1.2	1.1	—
Hawaiian and part Hawaiian	—	—	—	—	1.0	1.0	1.0	1.1	1.2	0.9	—
Other Asian or Pacific Islander	—	—	—	—	0.9	0.9	0.9	0.9	0.9	0.9	—
<b>Hispanic origine</b>	—	—	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1
Mexican American	—	—	0.9	1.0	0.9	0.9	0.9	1.0	1.0	1.0	—
Puerto Rican	—	—	1.3	1.3	1.6	1.7	1.7	1.7	1.6	1.8	—
Cuban	—	—	1.0	1.2	1.2	1.2	1.2	1.2	1.3	1.2	—
Central and South American	—	—	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.1	—
Other and Unknown Hispanic	—	—	1.0	1.0	1.1	1.1	1.1	1.2	1.3	1.3	—
<b>Age</b>											
Under age 15	—	3.1	3.4	3.1	3.2	3.4	3.1	3.6	3.4	3.2	3.2
15-19 years	—	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7
20-24 years	—	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
25-29 years	—	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2
30-34 years	—	1.0	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3
35-49 years	—	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.6	1.6	1.6

<sup>a</sup>Before 1979, very low birth weight defined as infants weighing 1,500 grams (3lb. 4oz.) or less. From 1979 and beyond, very low birth weight defined as infants weighing less than 1,500 grams (3lb. 4oz.).

<sup>b</sup>Birth figures for Hispanic infants in 1980 are based on data from 22 states that reported Hispanic origin on the birth certificate, 23 states and the District of Columbia in 1985, 48 states and the District of Columbia in 1990, 49 states and the District of Columbia in 1992, and 50 states and the District of Columbia since 1993.

<sup>c</sup>Data for 1996 are preliminary.

<sup>d</sup>Includes persons of Hispanic origin.

<sup>e</sup>Persons of Hispanic origin may be of any race.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; Ventura, S.J., Peters, K.D., Martin, J.A., and Maurer, J.D. "Births and Deaths: United States, 1996." *Monthly Vital Statistics Report* 46 (1, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report* 45 (11, Supp. 2). Hyattsville, Md.: National Center for Health Statistics, 1997. Also previous issues of this annual report and unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.



## HC 2.4

**GENERAL HEALTH CONDITIONS: PERCENTAGE OF CHILDREN IN VERY GOOD OR EXCELLENT HEALTH**

Most children in the United States are reported by their parents to be in very good or excellent health. The percentage of all children under age 18 reported to be in very good or excellent health has remained at about 80 percent since 1984. These reports vary little by gender; there are modest differences by age of child for some population subgroups (see Table HC 2.4).

**Differences by Race.** Parents' reports of their children's health vary by race. Between 1984 and 1995, black parents were less likely than white parents to report that their children were in very good or excellent health. In 1995, 72 percent of black children under age 5 were reported in very good or excellent health, compared with 83 percent of white children. Seventy percent of black children ages 5 to 17 were reported in very good or excellent health, compared with 82 percent of white children in this age group (see Table HC 2.4).

**Differences by Family Income.** Parents' reports of their children's health also vary by family income, with higher-income families more likely to report that their children are in very good or excellent health. For example, in 1995, 67 percent of children under age 5 in families with annual incomes under \$10,000 were reported to be in very good or excellent health, compared with 89 percent of children in families with annual incomes of \$35,000 or more. A similar pattern exists for children ages 5 to 17 (see Figure HC 2.4).

Table HC 2.4

Percentage of children under age 18 in the United States who are reported by their parents to be in very good or excellent health, by age, race, gender, and family income:<sup>a</sup> selected years, 1984-1995

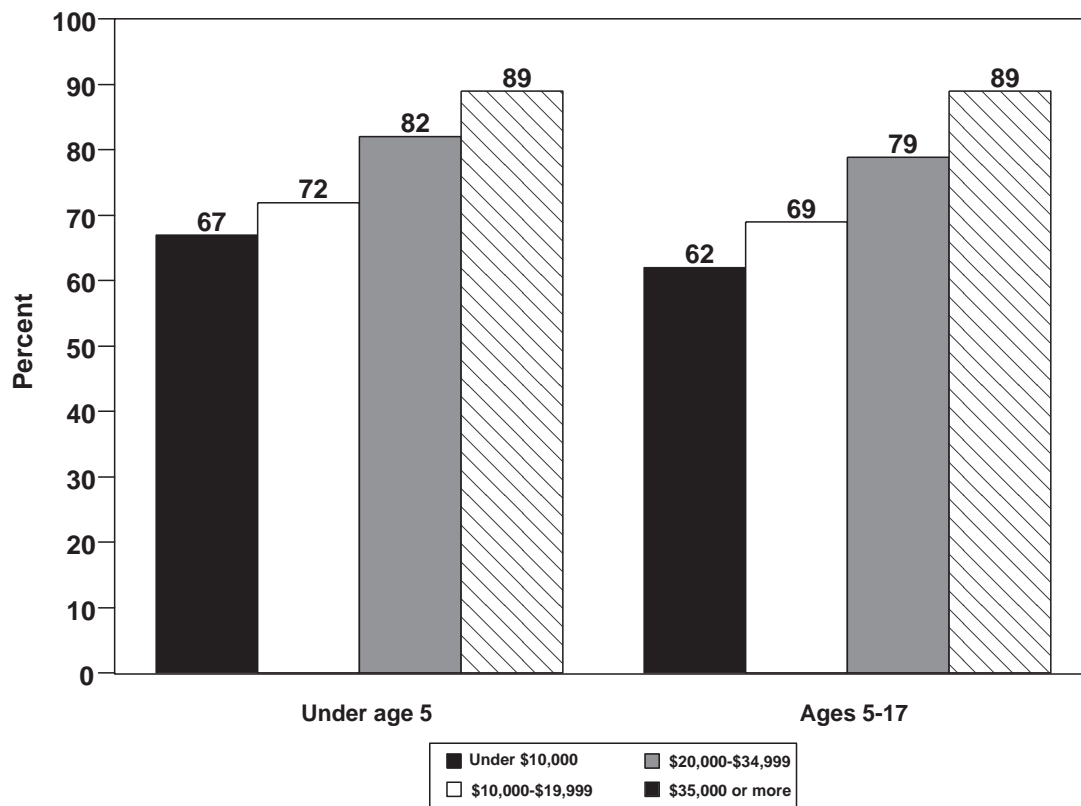
	1984	1987	1990	1992	1993	1994	1995
<b>Under Age 5</b>							
<b>Total</b>	79	81	81	80	80	81	81
<b>Race</b>							
White	81	84	83	82	82	83	83
Black	67	71	72	70	71	72	72
<b>Gender</b>							
Male	78	—	80	79	80	81	80
Female	79	—	82	81	80	81	82
<b>Annual family income<sup>a</sup></b>							
Under \$10,000							67
\$10,000-\$19,999							72
\$20,000-\$34,999							82
\$35,000 or more							89
<b>Ages 5-17</b>							
<b>Total</b>	77	80	80	80	79	79	80
<b>Race</b>							
White	80	83	83	82	81	81	82
Black	65	66	68	68	70	68	70
<b>Gender</b>							
Male	78	—	81	80	79	79	80
Female	77	—	80	79	78	78	80
<b>Annual family income<sup>a</sup></b>							
Under \$10,000							62
\$10,000-\$19,999							69
\$20,000-\$34,999							79
\$35,000 or more							89

<sup>a</sup>Family income is not adjusted in the National Health Interview Survey for comparison over time; therefore, family income is shown only for the most recent year.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 156, 166, 181, 189, and 190, Table 70 in each.]

Figure HC 2.4

Percentage of children under age 18 in the United States who are reported by their parents to be in very good or excellent health, by age and family income: 1995



Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 156, 166, 181, 189, and 190, Table 70 in each.]



## HC 2.5

**CHRONIC HEALTH CONDITIONS**

Chronic health problems can cause children to miss school and often require medical assistance and follow-up. Chronic conditions can also create stress for children and their parents, cause parents to miss work, and increase a family's medical expenses.

Over the period from 1984 to 1995, respiratory conditions were the most prevalent chronic health problems experienced by children under age 17 (see Figure HC 2.5). In general, there are few pronounced patterns of improvement or deterioration among those conditions shown (see Table HC 2.5). Two exceptions, however, are asthma and chronic sinusitis. In 1984, asthma affected 43 children per thousand, compared with 75 children per thousand in 1995; chronic sinusitis affected 47 children per thousand in 1984, and 76 children per thousand in 1995.

Table HC 2.5

**Selected chronic health conditions<sup>a</sup> for children under age 18 (rate per 1,000 children) in the United States: selected years, 1984-1995**

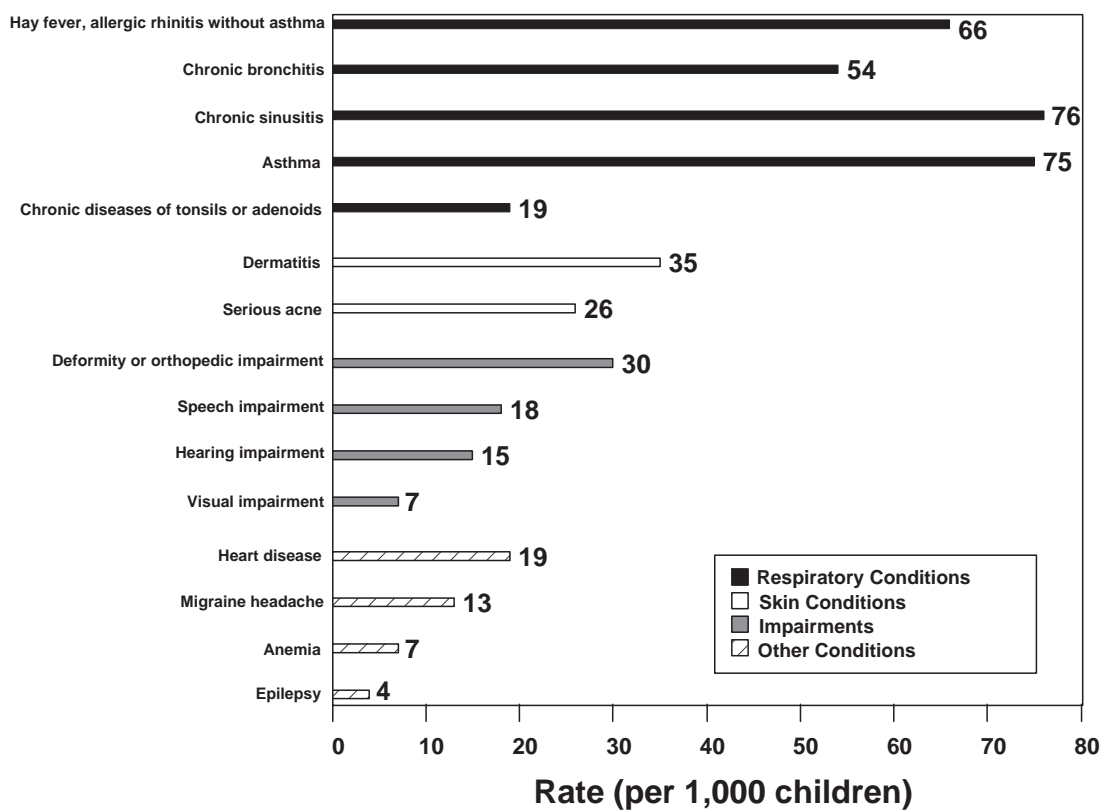
	<u>Rate per 1,000</u>						
	1984	1987	1990	1992	1993	1994	1995
<b>Respiratory conditions</b>							
Hay fever, allergic rhinitis without asthma	61	64	57	71	57	61	66
Chronic bronchitis	50	62	53	54	59	55	54
Chronic sinusitis	47	58	57	69	80	65	76
Asthma	43	53	58	63	72	69	75
Chronic diseases of tonsils or adenoids	34	30	23	28	26	23	19
<b>Skin conditions</b>							
Dermatitis	39	32	31	41	36	38	35
Serious acne	26	26	26	25	28	29	26
<b>Impairments</b>							
Deformity or orthopedic impairment	35	36	29	33	29	28	30
Speech impairment	16	19	14	21	20	21	18
Hearing impairment	24	16	21	15	17	18	15
Visual impairment	9	10	9	10	7	9	7
<b>Other conditions</b>							
Heart disease	23	22	19	19	20	18	19
Migraine headache	11	8	14	13	13	16	13
Anemia	11	8	10	11	9	12	7
Epilepsy	7	4	4	3	5	5	4

<sup>a</sup>Chronic health conditions as defined in the National Health Interview Survey are conditions that either a) were first noticed three months or more before the reference date of the interview; or b) belong to a group of conditions (including heart diseases, diabetes, and others) that are considered chronic regardless of when they began. The prevalence estimates are based on reports by parents or other adult respondents in response to checklists administered in household interviews.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 156, 166, 181, 189, and 190, Tables 57 and 62 in each.]

Figure HC 2.5

Selected chronic health conditions<sup>a</sup> for children under age 18 (rate per 1,000 children) in the United States: 1995



<sup>a</sup>Chronic health conditions as defined in the National Health Interview Survey are conditions that either a) were first noticed three months or more before the reference date of the interview; or b) belong to a group of conditions (including heart diseases, diabetes, and others) that are considered chronic regardless of when they began. The prevalence estimates are based on reports by parents or other adult respondents in response to checklists administered in household interviews.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 156, 166, 181, 189, and 190, Tables 57 and 62 in each.]

## HC 2.6

**OVERWEIGHT PREVALENCE AMONG CHILDREN AND ADOLESCENTS**

Persons who are overweight in adolescence are at greater risk of being overweight as adults, and adults who are overweight are at higher risk of numerous health problems including hypertension, coronary heart disease, gallbladder disease, nonBinsulin dependent diabetes, and some cancers.<sup>32</sup> Because being overweight in childhood and adolescence increases the risk of being overweight in adulthood, the trends in overweight prevalence among children and youth have become an important public health concern. Overall, the percentage of children ages 6 through 17 who are overweight has increased more than twofold since the 1960s, with the largest increases seen since 1980 (see Table HC 2.6).<sup>33</sup>

**Differences by Age.** In the earliest period shown on Table HC 2.6 (1963-1965), 5 percent of children ages 6 through 11 were overweight, with this percentage rising to 13.6 percent in the last period (1988-1994). Similar increases are shown among older children ages 12 through 17, although overweight prevalence has been about two percentage points lower for older children in the later time periods.

**Differences by Gender.** In the latest time period (1988-1994), 14.7 percent of males ages 6 through 11 compared with 12.6 percent of females were overweight, and 12.4 percent of males ages 12 through 17 compared with 10.7 percent of females were overweight.

**Differences by Race.** Overweight prevalence among male children (ages 6 through 11) and adolescents (ages 12 through 17) ranges within one percentage point between black and white males. The percentage of overweight black female children and adolescents is nearly 6 percentage points above that of their white peers (see Figure HC 2.6).

<sup>32</sup>Troiano, R.P., Flegal, K.M., Kuczmarski, R.J., Campbell, S.M., and Johnson, C.L. 1995. "Overweight Prevalence and Trends for Children and Adolescents: The National Health and Nutrition Examination Surveys, 1963-1991." *Archives of Pediatrics and Adolescent Medicine* 149 (October).

<sup>33</sup>Overweight is defined as body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cutoff points calculated at 6-month age intervals for children ages 6 through 11 [from the 1963-65 National Health Examination Survey (NHES)] and for adolescents ages 12 through 17 (from the 1966-70 NHES). Age is at time of examination at mobile examination center. This definition differs from that reported in earlier versions of this report, which was based on children at or above the 85th percentile of BMI.

Table HC 2.6

Percentage of overweight<sup>a</sup> children and adolescents in the United States, by age, gender, and race:<sup>b</sup> selected years, 1963-1994

	1963-1965	1966-1970	1971-1974	1976-1980	1988-1994
<b>Ages 6-11</b>					
<b>Total</b>	5.0	—	5.5	7.6	13.6
<b>Male<sup>b</sup></b>	4.9	—	6.5	8.1	14.7
White	5.4	—	6.6	8.1	14.6
Black	1.7	—	5.6	8.6	15.1
<b>Female<sup>b</sup></b>	5.2	—	4.4	7.1	12.6
White	5.1	—	4.4	6.5	11.7
Black	5.3	—	4.5	11.5	17.4
<b>Ages 12-17</b>					
<b>Total</b>	—	5.0	6.2	5.6	11.5
<b>Male<sup>b</sup></b>	—	5.0	5.3	5.3	12.4
White	—	5.2	5.5	5.3	13.1
Black	—	3.6	4.4	6.0	12.1
<b>Female<sup>b</sup></b>	—	5.0	7.2	6.0	10.7
White	—	4.8	6.6	5.4	10.2
Black	—	6.4	10.5	10.2	15.9

<sup>a</sup>Overweight is defined as body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cutoff points calculated at 6-month age intervals for children ages 6 through 11 [from the 1963-1965 National Health Examination Survey (NHES)] and for adolescents ages 12 through 17 (from the 1966-70 NHES). Age is at time of examination at mobile examination center. This definition differs from that reported in earlier versions of this report, which was based on children at or above the 85th percentile of BMI.

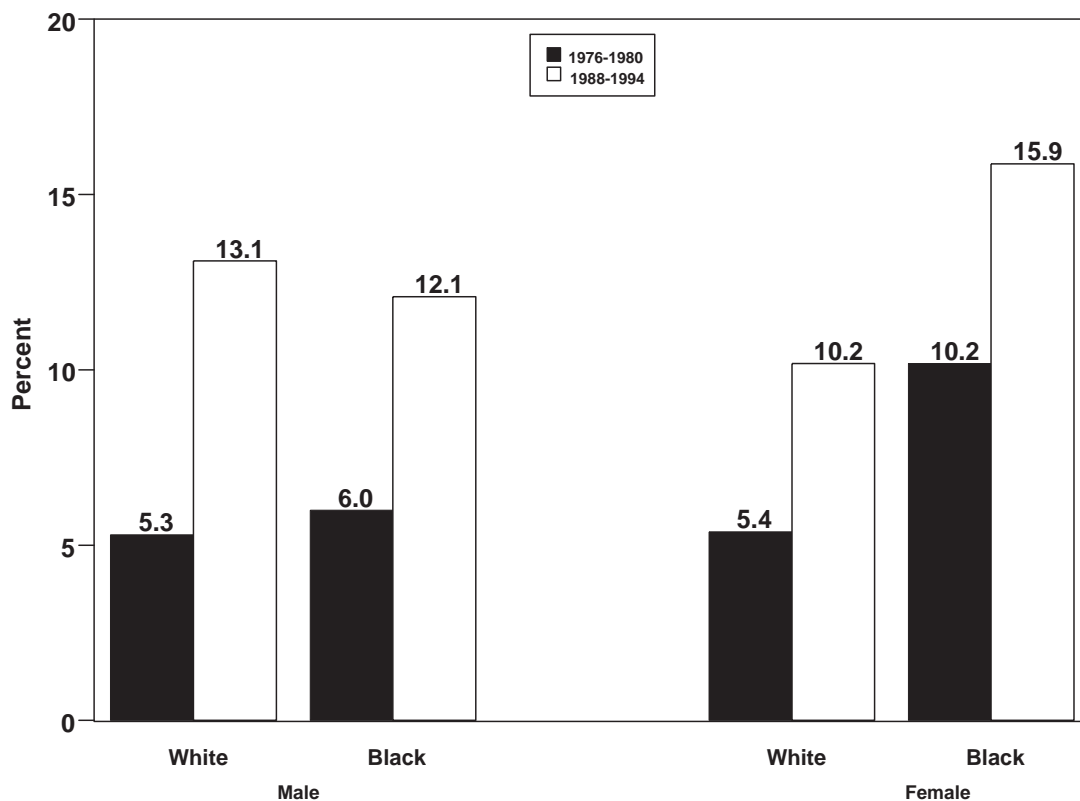
<sup>b</sup>Totals for male and female children and adolescents include data for race groups not shown separately.

Sources: National Center for Health Statistics. *Health, United States, 1996-97*. Hyattsville, Md.: 1997 (table 73). Estimates were calculated from the National Health Examination Survey (1963-1965 for ages 6 through 11, and 1966-1970 for ages 12 through 17) and from the National Health and Nutrition Examination Survey (NHANES; 1971-1974 for NHANES I, 1976-1980 for NHANES II, and 1988-1994 for NHANES III).



Figure HC 2.6

Percentage of overweight<sup>a</sup> adolescents (ages 12 through 17) in the United States, by gender and race: 1976-1980 and 1988-1994



<sup>a</sup>Overweight is defined as body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cutoff points calculated at 6-month age intervals for children ages 6 through 11 [from the 1963-1965 National Health Examination Survey (NHES)] and for adolescents ages 12 through 17 (from the 1966-70 NHES). Age is at time of examination at mobile examination center. This definition differs from that reported in earlier versions of this report, which was based on children at or above the 85th percentile of BMI.

Sources: National Center for Health Statistics. *Health, United States, 1996-97*. Hyattsville, Md.: 1997 (table 73). Estimates were calculated from the National Health Examination Survey (1963-1965 for ages 6 through 11, and 1966-1970 for ages 12 through 17) and from the National Health and Nutrition Examination Survey (NHANES; 1971-1974 for NHANES I, 1976-1980 for NHANES II, and 1988-1994 for NHANES III).



## HC 2.7

**ABUSE AND NEGLECT**

Abuse and neglect cause physical and/or emotional harm to children. They can produce short-term psychological consequences that range from poor peer relations to violent behavior, as well as untold long-term psychological and economic consequences when children reach adulthood.<sup>34</sup> They can result in serious injury or, in extreme cases, death.

The National Research Council distinguishes four categories of child maltreatment: 1) physical abuse, 2) sexual abuse, 3) emotional maltreatment, and 4) neglect.<sup>35</sup> The first three are commonly grouped together under the term “abuse,” although there are currently no universally accepted definitions of any of these terms.

According to data from the most comprehensive annual data collection efforts undertaken to date, there were 970,285 child victims of maltreatment in 1995 as measured by the total number of incidences<sup>36</sup> which were substantiated or indicated<sup>37</sup> by child welfare authorities. While the number of victims reported in Table HC 2.7 is not directly comparable across years due to some year-to-year differences in the number of reporting states and territories, analyses of the 44 states that reported in both 1990 and 1996 show an 18 percent increase in the number of victims between those two years.<sup>38</sup> Although maltreatment was about evenly split between abuse and neglect in 1990, neglect accounted for over half the cases by 1995 (see Table HC 2.7).

The number of victims shown in Table HC 2.7 may substantially understate the *actual* number of victims of maltreatment. In order for a child to be included in these counts, a report must first be made to child welfare authorities, an investigation undertaken, and a determination made that maltreatment occurred or was indicated.

Another data source, the third National Incidence Study of Child Abuse and Neglect, yields a much higher estimate of the total number of cases of child maltreatment — possibly as high as 2.8 million children in 1993. This study includes (1) all cases determined to be substantiated or indicated by child protective services<sup>39</sup> and (2) cases known to community professionals but not necessarily reported to child protective services (in a representative sample of counties).

**Differences by Race.** Black children account for a disproportionate share of maltreatment victims relative to their share of the child population (see Table HC 2.7).

- Black children, who constituted 16 percent of all children under age 18, accounted for 27 percent of all victims of child abuse and neglect in 1995.
- White children, who constituted 79 percent of all children under age 18, accounted for 55 percent of abuse and neglect victims in 1995.
- Hispanic children, who constituted 14 percent of all children under age 18, accounted for 10 percent of abuse and neglect victims in 1995.

<sup>34</sup>Many studies have demonstrated a correlation between child abuse and neglect and serious adult problems, including violence, incarceration, and mental illness; however, these studies have not been able to separate the effects of child abuse and neglect from other factors that are correlated with it, including poverty, education, parenting skills, etc.

<sup>35</sup>National Research Council, Panel on Child Abuse and Neglect. *Understanding Child Abuse and Neglect*. Washington, D.C.: National Academy Press, 1993.

<sup>36</sup>In most states, a child is counted each time he or she is the subject of a substantiated or indicated report of maltreatment, meaning that a child who is involved in more than one incident per year is counted more than once.

<sup>37</sup>Some states have a classification of “indicated” when there is sufficient reason to suspect that a child may have been maltreated or is at risk of maltreatment, but the allegation cannot be substantiated to the level of evidence required by State law.

<sup>38</sup>U.S. Department of Health and Human Services, Children’s Bureau, *Child Maltreatment 1996: Reports from the States to the National Child Abuse and Neglect Data System* (Washington, DC: U.S. Government Printing Office, 1998).

<sup>39</sup>According to the National Incidence Study, in 1993, only 28 percent of maltreatment cases identified by the study were investigated—a significant decrease from the 44 percent investigated in 1986. The cause of this drop is not clear.

**Differences by Age.** No age group accounts for an obviously disproportionate share of abuse and neglect victims. In 1995, infants under age 1 accounted for 7 percent of all victims; children ages 1 to 5 accounted for 33 percent; children ages 6 to 12 accounted for 39 percent; and children ages 13 to 17 accounted for 20 percent of all victims (see Table HC 2.7).

Table HC 2.7

**Victims of child maltreatment in the United States. Substantiated and indicated<sup>a</sup> incidences by type of maltreatment, race/ethnicity,<sup>b</sup> gender, and age:<sup>c</sup> 1990-1995**

	1990	1991	1992	1993	1994	1995
<b>Total</b>						
<b>Number<sup>d</sup></b>	798,318	857,968	1,002,288	1,018,692	967,398	970,285
<b>Number of reporting states/territories<sup>e</sup></b>	45	47	51	51	47	48
<b>Type of maltreatment (% of total)</b>						
Abuse	51	50	45	46	44	43
Neglect	49	50	55	54	56	57
<b>Race/ethnicity<sup>b</sup> (% of total)</b>						
White	55	56	55	54	56	55
Black	25	27	26	25	26	27
Hispanic	9	10	10	9	9	10
Other	4	4	4	4	4	5
Unknown	7	5	6	9	4	3
<b>Gender (% of total)</b>						
Male	47	46	46	47	47	47
Female	53	54	54	53	53	53
<b>Age (% of total)</b>						
Under age 1	8	8	7	7	7	7
Ages 1-5	31	32	32	33	33	33
Ages 6-12	37	38	37	38	38	39
Ages 13-17	20	20	19	20	20	20
Age 18+/unknown	5	2	5	2	2	2

<sup>a</sup>Some states have a classification of "indicated" when there is sufficient reason to suspect that a child may have been maltreated or is at risk of maltreatment, but the allegation cannot be substantiated to the level of evidence required by State law.

<sup>b</sup>Persons of Hispanic origin may be of any race. Estimates for whites and blacks include persons of Hispanic origin.

<sup>c</sup>Some states have included persons age 18 and older in their statistics on child abuse and neglect. Because these persons are considered victims of child maltreatment under the laws of their state, statistics in this table include these persons. Such individuals accounted for fewer than one percent of all victims.

<sup>d</sup>The total number of substantiated and indicated cases are not directly comparable from year to year because the number of reporting states and territories varies from year to year.

<sup>e</sup>These totals are out of a possible 54 which includes the 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Note: All data presented are from the National Child Abuse and Neglect Data System (NCANDS), which annually collects information from State child protective agencies. Because State agencies may modify or correct data submitted in a previous year, some findings differ from previously published data.

Sources: Unpublished data, Children's Bureau, U.S. Department of Health and Human Services; unpublished data, National Center on Child Abuse and Neglect, U.S. Department of Health and Human Services; U.S. Department of Health and Human Services, National Center on Child Abuse and Neglect. *Child Maltreatment 1995: Reports from the States to the National Child Abuse and Neglect Data System*. Washington, D.C.: U.S. Government Printing Office, 1997. Also previous issues of this annual report.

## HC 2.8

## SUICIDAL TEENS: YOUTH WHO HAVE THOUGHT SERIOUSLY ABOUT OR ATTEMPTED SUICIDE

Suicide is a major cause of death among American youth (see Section HC 1.5). Attempted suicide has been related to mental health problems including depression and adjustment or stress reactions, as well as to substance abuse.<sup>40</sup>

In 1995, 24 percent of youth in grades 9 through 12 report having seriously considered suicide during the previous 12 months (see Table HC 2.8.A). During the same time period, 9 percent, or 1 in 11, report having actually attempted suicide during the previous year (see Table HC 2.8.B). These rates are considerably higher than the proportion of youth who actually commit suicide (see Section HC 1.5).

**Differences by Race and Hispanic Origin.**<sup>41</sup> Black youth report somewhat lower rates of considering suicide in comparison with their white and Hispanic peers (20 percent for black youth versus 25 percent for both whites and Hispanics in 1995). Rates of reported attempted suicide range from 8 percent for whites to 13 percent for Hispanics.

**Differences by Gender.** In 1995, female youth were more likely than male youth to report having thought seriously about suicide (30 percent versus 18 percent) and having attempted suicide (12 percent versus 6 percent) during the previous year (see Figure HC 2.8); however, the rate of actual suicides, particularly among teens ages 15 to 19, are considerably higher for males than for females, as discussed in section HC 1.5.

Table HC 2.8.A

Percentage of teens in the United States in grades 9 through 12 who report having seriously considered suicide in the previous 12 months, by gender, grade, and race and Hispanic origin:<sup>a</sup> selected years, 1990-1995

	1990	1991	1993	1995
<b>Total</b>	27	28	24	24
Male	21	20	19	18
Female	34	36	30	30
<b>Grade</b>				
9	30	28	24	26
10	26	28	25	25
11	29	31	25	26
12	23	25	23	20
<b>Race and Hispanic origin<sup>a</sup></b>				
White non-Hispanic	28	29	24	25
Black non-Hispanic	20	20	20	20
Hispanic	30	26	26	25

<sup>a</sup>Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Kann, L., Warren, C.W., Harris, W., A., Collins, J. L., Williams, B.I., Ross, J.G., and Kolbe, L.J. "Youth Risk Behavior Surveillance—United States, 1995." In CDC Surveillance Summaries, September 27, 1996. *Morbidity and Mortality Weekly Report* 1996; 45 (No. 55-4): 1-85. Also previous issues of Surveillance Summaries. All data from Youth Risk Behavior Surveys 1990-1995.

<sup>40</sup>Alcohol, Drug Abuse, and Mental Health Administration. *Report of the Secretary's Task Force on Youth Suicide*. Publication No. (ADM)899-1621. Washington, D.C.: U.S. Department of Health and Human Services, 1989. Cited in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives, Conference Edition*. U.S. Department of Health and Human Services, 1990.

<sup>41</sup>Estimates for white and black youth exclude Hispanics of those races.

Table HC 2.8.B

Percentage of teens in the United States in grades 9 through 12 who report having attempted suicide in the previous 12 months, by gender, grade, and race and Hispanic origin:<sup>a</sup> selected years, 1990-1995

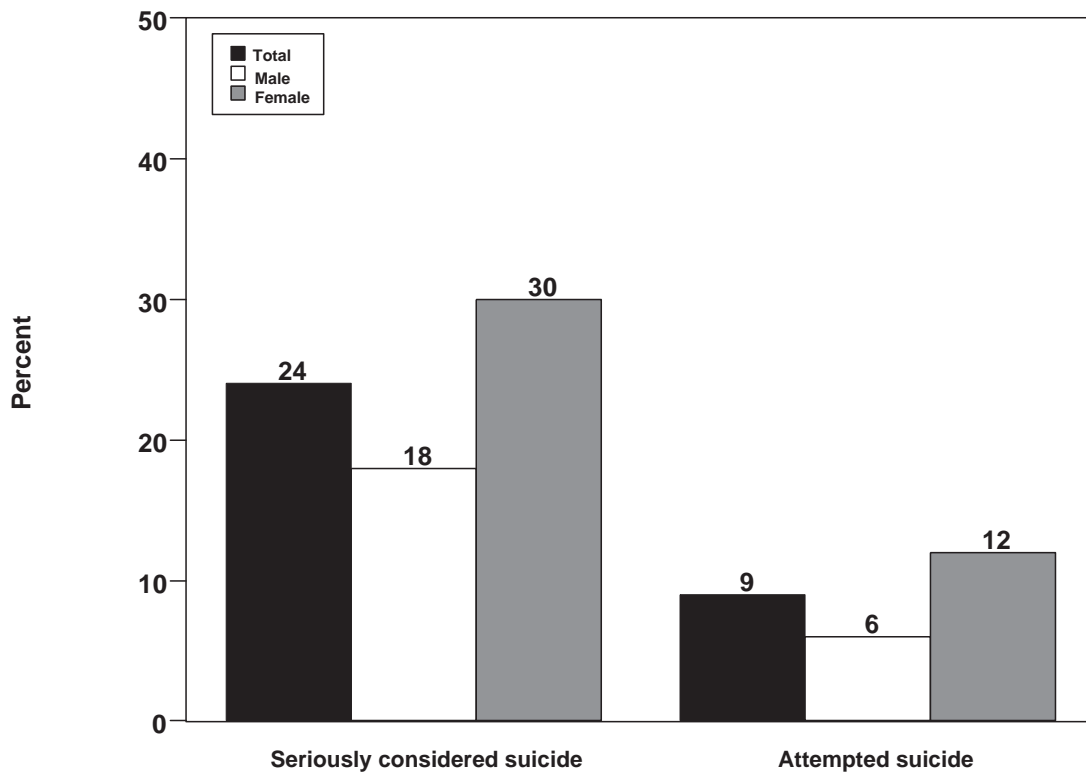
	1990	1991	1993	1995
<b>Total</b>	8	7	9	9
Male	6	4	5	6
Female	10	10	13	12
<b>Grade</b>				
9	9	9	10	11
10	9	7	9	10
11	8	6	8	9
12	7	6	7	6
<b>Race and Hispanic origin<sup>a</sup></b>				
White non-Hispanic	8	6	8	8
Black non-Hispanic	7	6	8	10
Hispanic	12	7	14	13

<sup>a</sup>Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Williams, B.I., Ross, J.G., and Kolbe, L.J. "Youth Risk Behavior Surveillance—United States, 1995." In CDC Surveillance Summaries, September 27, 1996. *Morbidity and Mortality Weekly Report* 1996; 45 (No. 55-4): 1-85. Also previous issues of Surveillance Summaries. All data from Youth Risk Behavior Surveys 1990-1995.

Figure HC 2.8

Percentage of teens in the United States in grades 9 through 12 who report having seriously considered suicide or attempted suicide in the previous 12 months, by gender: 1995



Sources: Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Williams, B.I., Ross, J.G., and Kolbe, L.J. "Youth Risk Behavior Surveillance—United States, 1995." In CDC Surveillance Summaries, September 27, 1996. *Morbidity and Mortality Weekly Report* 1996; 45 (No. 55-4): 1-85. Also previous issues of Surveillance Summaries. All data from Youth Risk Behavior Surveys 1990-1995.





## HC 2.9

**ACTIVITY LIMITATIONS**

Activity limitations refer to long-term reductions in activities resulting from a chronic disease or impairment.<sup>42</sup> Two types of activity limitations are examined here: limitations in major activities and limitations in any activity. A person is classified as having an activity limitation if he or she reports 1) an inability to perform the major activity for a person in his or her age group, 2) being able to perform the major activity but being limited in the kind or amount of this activity, or 3) not being limited in the major activity but being limited in the kind or amount of other activities. For children under age 5, the major activity consists of ordinary play. For children ages 5 to 17, the major activity is attending school. Children are classified as being limited in a *major activity* if they are unable to engage in the major activity or are limited in the kind or amount of this activity (classifications (1) and (2) above).

In 1995, 2.7 percent of children under age 5, and 7.4 percent of children ages 5 through 17 had a chronic condition that limited their activity (see Table HC 2.9.A). The percentage of all children under age 18 with a limitation in a major activity due to a chronic condition was 4.3 in 1995 (see Table HC 2.9.B).

**Differences by Age.** Children ages 5 through 17 are more than twice as likely to experience an activity limitation due to a chronic condition than are younger children. In 1995, 2.7 percent of children under age 5 had an activity limitation due to a chronic condition, compared with 7.4 percent of older children. These differences by age can be seen across family income, gender, race and Hispanic origin categories.

**Differences by Gender.** Males have consistently accounted for a greater percentage of children ages 5 through 17 with an activity limitation due to a chronic condition. In 1995, 9.0 percent of males, compared with 5.6 percent of females, had activity limitations that were caused by a chronic condition (see Figure HC 2.9.A). Looking only at limitations in *major activities* in 1995, 5.5 percent of males under age 18 had such limitations, compared with 3.1 percent of females (see Figure HC 2.9.B).

**Differences by Race and Hispanic Origin.**<sup>43</sup> In 1995, 8.9 percent of black children (ages 5 through 17) had activity limitations, compared with 7.2 percent of white children and 7.5 percent of Hispanic children.

**Differences by Income.** Disparities in the percentage of children with an activity limitation are most apparent between children in families with annual incomes under \$20,000 and in families with annual incomes of \$20,000 or more (for children ages 5 through 17). In 1995, 6.2 percent of children in families with annual incomes at or over \$20,000 had an activity limitation due to a chronic condition, while 10.9 percent in families with annual incomes below \$20,000 experienced such activity limitations (see Figure HC 2.9.A).

<sup>42</sup>A disease or impairment is classified as chronic if it has been apparent for at least three months or is a new condition that will ordinarily last for more than three months.

<sup>43</sup>Estimates for white and black children exclude Hispanics of those races.

Table HC 2.9.A

Percentage of children under age 18 in the United States with any activity limitation<sup>a</sup> due to a chronic condition,<sup>b</sup> by family income, age, gender, race and Hispanic origin:<sup>c</sup> 1990-1995

	1990	1991	1992	1993-1994 <sup>d</sup>	1995
<b>Under 5</b>					
<b>Total</b>	2.2	2.4	2.8	3.0	2.7
<b>Annual family income</b>					
Under \$20,000	2.5	3.6	3.6	4.4	3.9
\$20,000 or more	1.9	1.8	2.3	2.2	2.1
<b>Gender</b>					
Male	2.6	2.7	3.3	3.3	3.3
Female	1.7	2.1	2.2	2.6	2.0
<b>Race and Hispanic origin<sup>e</sup></b>					
White, non-Hispanic	2.1	2.4	2.5	2.5	2.7
Black, non-Hispanic	2.9	3.2	4.2	4.8	3.5
Hispanic	2.0	1.8	2.5	2.9	2.5
<b>Ages 5-17</b>					
<b>Total</b>	6.1	7.2	7.5	8.2	7.4
<b>Annual family income</b>					
Under \$20,000	8.1	10.1	11.0	11.5	10.9
\$20,000 or more	5.2	6.0	6.1	6.9	6.2
<b>Gender</b>					
Male	6.9	8.5	8.7	9.7	9.0
Female	5.2	5.9	6.2	6.6	5.6
<b>Race and Hispanic origin<sup>e</sup></b>					
White, non-Hispanic	6.2	7.1	7.4	8.2	7.2
Black, non-Hispanic	6.7	8.2	9.0	9.8	8.9
Hispanic	5.1	7.2	6.7	7.1	7.5

<sup>a</sup>Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for children are ordinary play for children under 5 years of age, and attending school for those 5-17 years of age. A person is classified as having an activity limitation if he or she is unable to perform the major activity, is able to perform the major activity but is limited in the kind or amount of this activity, or is not limited in the major activity but is limited in the kind or amount of other activities.

<sup>b</sup>A condition is considered chronic if the respondent indicates it was first noticed more than three months before the reference date of the interview, or it is a type of condition that ordinarily has a duration of more than three months.

<sup>c</sup>Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

<sup>d</sup>Estimates are based on data from 1993 and 1994 combined.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 181, 184, and 189.]

Table HC 2.9.B

Percentage of children under age 18 in the United States with any activity limitation in a major activity<sup>a</sup> due to a chronic condition,<sup>b</sup> by gender and race: selected years, 1983-1995

	1983	1985	1990	1991	1992	1993	1994	1995
<b>Total</b>	3.5	3.7	3.6	4.2	4.4	4.6	4.9	4.3
<b>Gender</b>								
Male	4.2	4.4	4.2	5.0	5.2	5.6	6.0	5.5
Female	2.8	2.9	3.0	3.3	3.7	3.5	3.8	3.1
<b>Race</b>								
White	3.4	3.5	3.5	4.1	4.3	4.5	4.7	4.2
Black	4.5	4.6	4.2	5.2	6.0	5.7	6.7	5.5

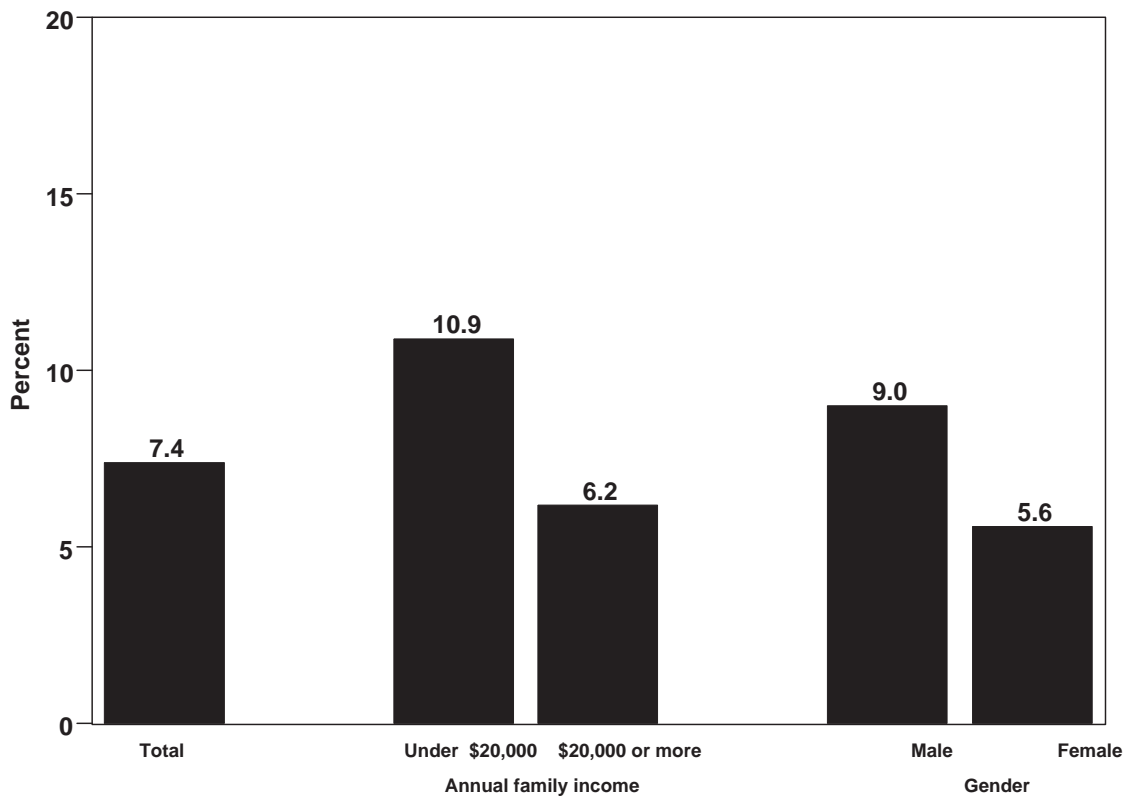
<sup>a</sup>Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for children are ordinary play for children under 5 years of age, and attending school for those 5-17 years of age. A person is classified as having an activity limitation in a major activity if he or she is unable to perform the major activity, or is able to perform the major activity but is limited in the kind or amount of this activity.

<sup>b</sup>A condition is considered chronic if the respondent indicates it was first noticed more than three months before the reference date of the interview, or it is a type of condition that ordinarily has a duration of more than three months.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 154, 163, 181, 184, 189, and 190.]

Figure HC 2.9.A

Percentage of children ages 5 through 17 in the United States with any activity limitation<sup>a</sup> due to a chronic condition,<sup>b</sup> by family income and gender: 1995



<sup>a</sup>Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for children are ordinary play for children under 5 years of age, and attending school for those 5-17 years of age. A person is classified as having an activity limitation if he or she is unable to perform the major activity, is able to perform the major activity but is limited in the kind or amount of this activity, or is not limited in the major activity but is limited in the kind or amount of other activities.

<sup>b</sup>A condition is considered chronic if the respondent indicates it was first noticed more than three months before the reference date of the interview, or it is a type of condition that ordinarily has a duration of more than three months.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 181, 184, and 189.]

Figure HC 2.9.B

Percentage of children under age 18 in the United States with an activity limitation in a major activity<sup>a</sup> due to a chronic condition,<sup>b</sup> by gender: selected years, 1983-1995



<sup>a</sup>Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for children are ordinary play for children under 5 years of age, and attending school for those 5-17 years of age. A person is classified as having an activity limitation in a major activity if he or she is unable to perform the major activity, or is able to perform the major activity but is limited in the kind or amount of this activity.

<sup>b</sup>A condition is considered chronic if the respondent indicates it was first noticed more than three months before the reference date of the interview, or it is a type of condition that ordinarily has a duration of more than three months.

Sources: Unpublished data from the National Health Interview Survey, National Center for Health Statistics; Adams, P.F., and Marono, M.A. "Current Estimates from the National Health Interview Survey, 1994." *Vital Health Statistics* 10(193). National Center for Health Statistics, 1995. Also previous issues of this report. [Series 10, Nos. 154, 163, 181, 184, 189, and 190.]



## HC 2.10

**LEAD EXPOSURE**

Exposure to lead has long been recognized as a serious health hazard, particularly for infants, toddlers, and preschool-age children, whose developing nervous systems are sensitive to lead. Research during the past two decades has shown that adverse health effects can occur from blood lead levels (BLLs) that had previously been considered safe. Based on this research, the Centers for Disease Control and Prevention now consider BLLs at least as low as ten micrograms per deciliter of blood as hazardous for children ages 1 to 5.<sup>44</sup>

**Dramatic Decreases in Blood Lead Levels.** The percentage of very young children who have elevated blood lead levels declined dramatically in the 1980s (see Figure HC 2.10). Data gathered between 1976 and 1980 revealed that 88.2 percent of children between the ages of 1 and 5 had blood lead levels that have been associated with adverse health effects. Subsequent data gathered between 1988 and 1991 found that only 8.9 percent of children had elevated levels of lead in their blood. Data gathered between 1991 and 1994 reflect that 4.4 percent of children ages 1 through 5 had elevated blood lead levels. These dramatic decreases have been attributed primarily to the removal of lead from gasoline and from soldered food and soft drink cans.<sup>45</sup> Other contributing factors have been the ban on leaded paint for residential use in the 1970s, the ban on lead in solder for household plumbing, and the ongoing screening of children for lead exposure.

**Populations with Elevated Blood Lead Levels.** Non-Hispanic black children, poor and near-poor children, and children living in the central areas of large cities face considerably higher risks of being exposed to high levels of lead than other children.<sup>46</sup> In the latest time period shown (1991-1994):

- Among non-Hispanic black children, 11.2 percent had elevated blood lead levels, compared with 2.3 percent of non-Hispanic white children (see Table HC 2.10.A).
- Poor children (in families with annual incomes less than or equal to 130 percent of the poverty threshold), at 8 percent, had the highest percentage of elevated blood lead levels, compared with 1.9 percent of children in middle-income families and 1 percent of children in high-income families (see Table HC 2.10.B).
- The percentage of children living in large urban areas (populations of at least one million) with elevated blood lead levels was 5.4 percent, compared with 3.3 percent of children living in other areas (see Table HC 2.10.B).

**Differences by Year Housing Built.** Deteriorating lead-based paint and lead-contaminated dust in older homes are the primary source of lead exposure for children in the United States today.<sup>47</sup> The prevalence of elevated blood lead levels is lower for children who live in housing built after 1973. This holds true for all children across race, income, and urban status categories.<sup>48</sup> Likewise, the higher prevalence of elevated blood lead levels among non-Hispanic black children, children in families with low income, and children living in more urban areas can still be seen across the categories reflecting age of housing (see Table HC 2.10.B).

<sup>44</sup>Centers for Disease Control and Prevention. *Preventing Lead Poisoning in Young Children: A Statement by the Centers for Disease Control and Prevention*. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service, 1991.

<sup>45</sup>Pirkle, J.L., Brody, D.J., Gunter, E.W., Kramer, R.A., Paschal, D.C., Flegal, K.M., and Matte, T.D. 1994. "The Decline in Blood Lead Levels in the United States: The National Health and Nutrition Examination Surveys (NHANES)." *JAMA* 272(4): 284-291.

<sup>46</sup>Centers for Disease Control and Prevention. February 21, 1997. "Update: Blood Lead Levels — United States, 1991-1994." *Morbidity and Mortality Weekly Report* 46(7).

<sup>47</sup>Centers for Disease Control and Prevention. February 21, 1997. "Update: Blood Lead Levels — United States, 1991-1994." *Morbidity and Mortality Weekly Report* 46(7); Pirkle, J.L., Brody, D.J., Gunter, E.W., Kramer, R.A., Paschal, D.C., Flegal, K.M., and Matte, T.D. 1994. "The Decline in Blood Lead Levels in the United States: The National Health and Nutrition Examination Surveys (NHANES)." *JAMA* 272(4): 284-291.

<sup>48</sup>Centers for Disease Control and Prevention. February 21, 1997. "Update: Blood Lead Levels — United States, 1991-1994." *Morbidity and Mortality Weekly Report* 46(7).

Table HC 2.10.A

Percentage of children ages 1 through 5 in the United States with blood lead levels greater than or equal to ten micrograms per deciliter, by age and race/ethnicity:<sup>c</sup> selected years, 1976-1994<sup>a</sup>

	1976-1980	1988-1991	1991-1994 <sup>a</sup>
<b>All children ages 1-5<sup>b</sup></b>	88.2	8.9	4.4
Ages 1-2	88.3	11.5	5.9
Ages 3-5	88.1	7.3	3.5
<b>Race/ethnicity<sup>c</sup></b>			
White, non-Hispanic	85.0	5.5	2.3
Black, non-Hispanic	97.7	20.6	11.2

<sup>a</sup>Constraints of the survey design of NHANES III (the Third National Health and Nutrition Examination Survey) preclude statistical testing for the differences in weighted geometric mean blood lead levels (BLLs) and the prevalence of elevated BLLs from Phase 1 to Phase 2. Data are presented for descriptive purposes, however comparisons between Phases should be made with caution.

<sup>b</sup>Totals include children ages 1 through 5 of all race/ethnicity groups beyond those shown separately.

<sup>c</sup>Estimates for whites and blacks exclude Hispanics of those races.

Sources: Centers for Disease Control and Prevention. February 21, 1997. "Update: Blood Lead Levels -- United States, 1991-1994." *Morbidity and Mortality Weekly Report* 46(7); Pirkle, J.L., Brody, D.J., Gunter, E.W., Kramer, R.A., Paschal, D.C., Flegal, K.M., and Matte, T.D. 1994. "The Decline in Blood Lead Levels in the United States: The National Health and Nutrition Examination Surveys (NHANES)." *JAMA* 272(4): 284-291; Brody, D.J., Pirkle, J.L., Kramer, R.A., Flegal, K.M., Matte, T.D., Gunter, E.W., and Paschal, D.C. 1994. "Blood Lead Levels in the U.S. Population: Phase 1 of the Third National Health and Nutrition Examination Survey (NHANES III, 1988 to 1991)." *JAMA* 272(4): 277-283.



Table HC 2.10.B

Percentage of children ages 1 through 5 in the United States with blood lead levels greater than or equal to ten micrograms per deciliter, by year housing built, race and ethnicity,<sup>b</sup> family income,<sup>c</sup> and urban status:<sup>d</sup> selected years, 1991-1994 (combined)

	Total <sup>a</sup>	Year Housing Built		
		Before 1946	During 1946-1973	After 1973
<b>Total<sup>a</sup></b>	4.4	8.6	4.6	1.6
<b>Race/ethnicity<sup>b</sup></b>				
White, non-Hispanic	2.3	5.6	1.4	1.5
Black, non-Hispanic	11.2	21.9	13.7	3.4
<b>Annual family income<sup>c</sup></b>				
Low	8.0	16.4	7.3	4.3
Middle	1.9	4.1	2.0	0.4
High	1.0	0.9	2.7	*
<b>Urban status<sup>d</sup></b>				
Population 1 million and more	5.4	11.5	5.8	0.8
Population less than 1 million	3.3	5.8	3.1	2.5

<sup>a</sup>Totals include children ages 1 through 5 of all race/ethnicity groups beyond those shown separately.

<sup>b</sup>Estimates for whites and blacks exclude Hispanics of those races.

<sup>c</sup>Income categories were defined using the poverty-income ratio (PIR; the ratio of total family income to the poverty threshold for the year of the interview): low income was defined as PIR #1.300; middle, as PIR 1.301-3.500; and high, as PIR \$3.501. Persons with data missing for income were not included in the analysis of income.

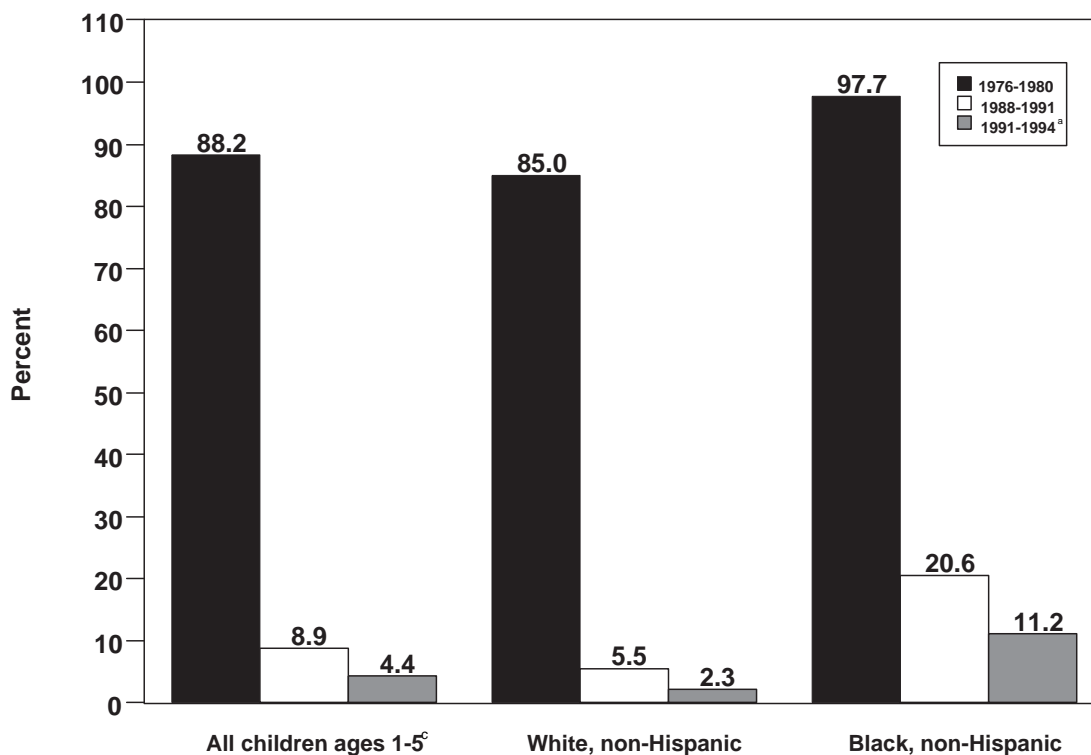
<sup>d</sup>Urban status was based on U.S. Department of Agriculture codes that classify counties by total population and proximity to major metropolitan areas, and was divided into two categories: metropolitan areas with a population greater than or equal to 1 million, and metropolitan and nonmetropolitan areas with a population less than 1 million.

\*No children in the sample had these characteristics, however the true estimate for this population group is probably larger than zero.

Source: Centers for Disease Control and Prevention. February 21, 1997. "Update: Blood Lead Levels--United States, 1991-1994." *Morbidity and Mortality Weekly Report* 46(7). Data from the Third National Health and Nutrition Examination Survey, Phase 2.

Figure HC 2.10

Percentage of children ages 1 through 5 in the United States with blood lead levels greater than or equal to ten micrograms per deciliter, by race/ethnicity:<sup>a</sup> selected years, 1976-1994<sup>b</sup>



<sup>a</sup>Estimates for whites and blacks exclude Hispanics of those races.

<sup>b</sup>Constraints of the survey design of NHANES III preclude statistical testing for the differences in weighted geometric mean blood lead levels (BLLs) and the prevalence of elevated BLLs from Phase 1 to Phase 2. Data are presented for descriptive purposes, however comparisons between Phases should be made with caution.

<sup>c</sup>Totals include children ages 1 through 5 of all race/ethnicity groups beyond those shown separately.

Sources: Centers for Disease Control and Prevention. February 21, 1997. "Update: Blood Lead Levels -- United States, 1991-1994." *Morbidity and Mortality Weekly Report* 46(7); Pirkle, J.L., Brody, D.J., Gunter, E.W., Kramer, R.A., Paschal, D.C., Flegal, K.M., and Matte, T.D. 1994. "The Decline in Blood Lead Levels in the United States: The National Health and Nutrition Examination Surveys (NHANES)." *JAMA* 272(4): 284-291; Brody, D.J., Pirkle, J.L., Kramer, R.A., Flegal, K.M., Matte, T.D., Gunter, E.W., and Paschal, D.C. 1994. "Blood Lead Levels in the U.S. Population: Phase 1 of the Third National Health and Nutrition Examination Survey (NHANES III, 1988 to 1991)." *JAMA* 272(4): 277-283.

## HC 2.11

**VIOLENT VICTIMIZATION OF TEENS**

Violent crimes include simple and aggravated assaults, rape, and robbery (stealing by force or threat of violence). In order to keep track of the incidence of these and other crimes, the United States has been administering the National Crime Victimization Survey on an annual basis since 1972.

Among youth ages 12 to 17, rates of victimization for violent crimes rose from 79 to 99 per thousand between 1980 and 1990 (see Table HC 2.11). Rates continued to increase to a high of 123 per thousand in 1993 before declining slightly to 118 per thousand in 1994.

**Differences by Gender.** Male youth are considerably more likely than female youth to be victims of violent crimes. In 1994, 141 per thousand males ages 12 through 17 were victims of violent crimes, compared with 95 per thousand females (see Figure HC 2.11).

**Differences by Race.** Black youth have consistently been more likely than white youth to be victims of violent crimes. Rates for both black and white youth have risen by approximately 50 percent from 1980 to 1994, maintaining the disparity between the races over time. In 1994, 136 black youths per thousand were victims of violent crime, compared with 118 per thousand among white youth ages 12 through 17.

Table HC 2.11

**Violent victimization<sup>a</sup> of youth ages 12 through 17 in the United States (rates per 1,000), by age, race, and gender: selected years, 1980-1994**

	1980	1985	1990	1991	1992	1993	1994
<b>Age</b>							
12-17 years	79	84	99	106	118	123	118
12-14 years	70	81	102	98	119	121	118
15-17 years	87	87	95	115	116	125	119
<b>Race</b>							
White	78	88	95	105	121	126	118
Black	91	69	122	128	112	133	136
Other	50	72	76	54	79	49	65
<b>Gender</b>							
Male	106	113	131	149	146	149	141
Female	50	54	64	61	88	96	95

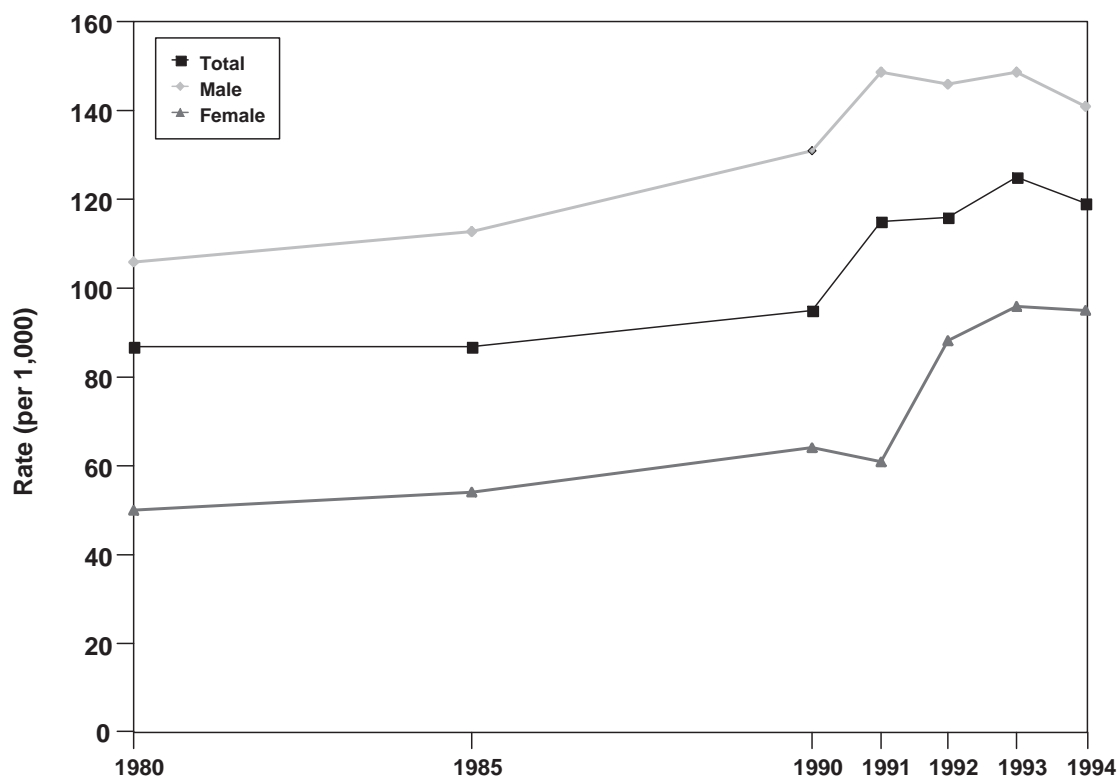
<sup>a</sup>Violent victimization is defined as being a victim of a violent crime, including simple and aggravated assaults, rape, and robbery (stealing by force or threat of violence).

Notes: 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. Victimization rates were calculated using population estimates from the U.S. Bureau of the Census, Current Population Reports. Such population estimates normally differ somewhat from population estimates derived from survey data. The rates may therefore differ marginally from rates based upon survey-derived population estimates.

Source: Unpublished tables, U.S. Bureau of Justice Statistics, National Crime Victimization Survey, 1980-1994.

Figure HC 2.11

Violent victimization<sup>a</sup> of youth ages 12 through 17 in the United States  
(rates per 1,000), by gender: selected years, 1980-1994



<sup>a</sup>Violent victimization is defined as being a victim of a violent crime, including simple and aggravated assaults, rape, and robbery (stealing by force or threat of violence).

Notes: 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. Victimization rates were calculated using population estimates from the U.S. Bureau of the Census, Current Population Reports. Such population estimates normally differ somewhat from population estimates derived from survey data. The rates may therefore differ marginally from rates based upon survey-derived population estimates.

Source: Unpublished tables, U.S. Bureau of Justice Statistics, National Crime Victimization Survey, 1980-1994.

## HC 2.12

**DENTAL CARIES**

“Dental caries” is a technical term referring to either treated or untreated tooth decay in one or more teeth. Proper preventive care reduces the incidence of dental caries. The presence of dental caries may indicate a lack of access to preventive care or a lack of information about preventive techniques.<sup>49</sup>

**Differences by Race/Ethnicity.**<sup>50</sup> Mexican American children ages 2 through 4 had the highest prevalence of dental caries in their primary teeth (see Figure HC 2.12). Almost one-third of Mexican American children had dental caries, compared with 22 percent of non-Hispanic black children and 13 percent of non-Hispanic white children. Mexican American children also had the highest prevalence of dental caries in permanent teeth, but the gap among children ages 5 through 17 was much smaller than it was for younger children. Non-Hispanic black children had the lowest percentage of dental caries with 39 percent, compared with 45 percent for non-Hispanic white children and 49 percent for Mexican American children (see Table HC 2.12).

Table HC 2.12

**Percentage of children ages 2 through 17 in the United States with dental caries, by age and race/ethnicity:<sup>a</sup> 1988-1991**

	<u>White, non-Hispanic</u>	<u>Black, non-Hispanic</u>	<u>Mexican American</u>
Ages 2-4 (dental caries in primary teeth)	13	22	32
Ages 5-17 (dental caries in permanent teeth)	45	39	49

<sup>a</sup>Estimates for whites and blacks exclude Hispanics of those races.

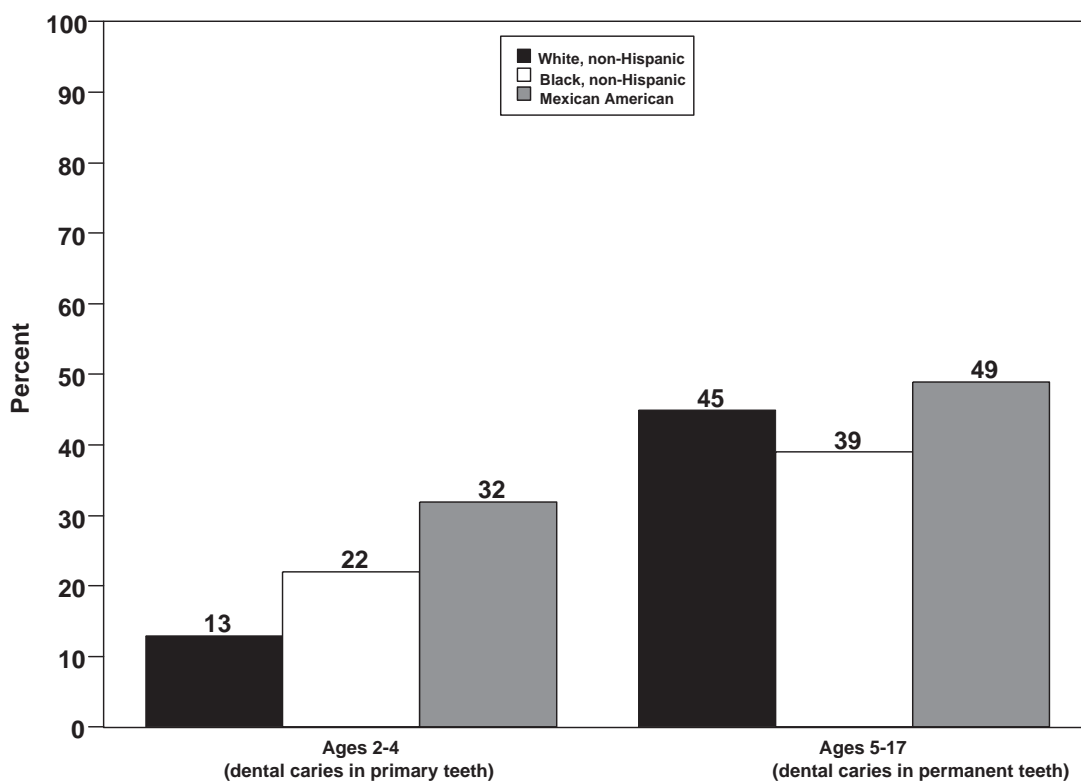
Source: Kaste, L.M., Selwitz, R.H., Oldakowski, R.J., Brunelle, J.A., Winn, D.M., and Brown, L.J. 1996. “Coronal Caries in the Primary and Permanent Dentition of Children and Adolescents 1-17 Years of Age: United States, 1988-1991.” *Journal of Dental Research* 75(Spec Iss): 631-641. Rockville, Md.: National Institutes of Health. National Institute of Dental Research, Division of Epidemiology and Oral Disease Prevention.

<sup>49</sup>Kaste, L.M., Selwitz, R.H., Oldakowski, R.J., Brunelle, J.A., Winn, D.M., and Brown, L.J. 1996. “Coronal Caries in the Primary and Permanent Dentition of Children and Adolescents 1-17 Years of Age: United States 1988-1991.” *Journal of Dental Research* 75(Spec Iss): 631-641. Rockville, Md.: National Institutes of Health. National Institute of Dental Research, Division of Epidemiology and Oral Disease Prevention.

<sup>50</sup>Estimates for whites and blacks exclude Hispanics of those races.

Figure HC 2.12

Percentage of children ages 2 through 17 in the United States with dental caries, by age and race/ethnicity:<sup>a</sup> 1988-1991



<sup>a</sup>Estimates for whites and blacks exclude Hispanics of those races.

Sources: Kaste, L.M., Selwitz, R.H., Oldakowski, R.J., Brunelle, J.A., Winn, D.M., and Brown, L.J. 1996. "Coronal Caries in the Primary and Permanent Dentition of Children and Adolescents 1-17 Years of Age: United States, 1988-1991." *Journal of Dental Research* 75(Spec Iss): 631-641. Rockville, Md.: National Institutes of Health. National Institute of Dental Research, Division of Epidemiology and Oral Disease Prevention.

## HC 2.13

**CHILDREN AND ADOLESCENTS WITH HIV/AIDS**

**Pediatric AIDS.** Through June 1997, 7,902 cases of AIDS in children younger than 13 years old have been reported in the United States. Pediatric AIDS cases represent 1.3 percent of all cumulative reported cases (612,078) to the Centers for Disease Control and Prevention. The vast majority—91 percent—of these cases result from transmission before or during birth or what is known as perinatal transmission.<sup>51</sup>

The estimated number of children under age 13 who acquired AIDS before or during birth increased each year during the period from 1984 through 1992. From 1992 through 1996, however, the number of cases of children with perinatally acquired AIDS has declined by 43 percent (see Figure HC 2.13.A). A contributing factor to this dramatic decrease was the U.S. Public Health Service's (USPHS) recommendation in August 1994 for the use of zidovudine (ZDV) therapy to reduce perinatal transmission.<sup>52</sup> In addition, in July 1995, the USPHS recommended universal HIV counseling and voluntary testing for all pregnant women in the United States.

**Differences by Race and Hispanic Origin.** In 1996, the estimated number of black, non-Hispanic children under age 13 with perinatally acquired AIDS was nearly five times the estimated number of cases among white, non-Hispanic children, and about three times the estimated number of cases among Hispanic children (see Table HC 2.13.A). These differences are even more pronounced when rates are examined. Figure HC 2.13.B shows the rates of total pediatric AIDS cases (not just perinatally-acquired cases) by race and Hispanic origin in 1996.

**Adolescent HIV/AIDS.** Over the past decade, the number of AIDS cases reported each year among adolescents ages 13 through 19 has increased substantially. In 1986, 53 adolescents were reported with AIDS. By 1996, the number of cases reported for the year rose to 403. Through June 1997, a total of 2,953 AIDS cases among adolescents have been reported.<sup>53</sup> Up to 25 percent of the new cases of HIV infection that occur in the United States each year may be among young people under age 22, and as many as 50 percent may be among young people under age 25.<sup>54</sup>

Although the number of adolescents with AIDS is relatively small, substantially more young people are infected with HIV than are living with AIDS. HIV surveillance data in 25 states, collected from January 1994 through June 1997, indicate that 14 percent of individuals in whom HIV infection was the initial diagnosis were adolescents and young adults ages 13 through 24 years, compared with 3 percent in whom AIDS was the initial diagnosis.<sup>55</sup> Since the period between HIV infection and AIDS diagnosis can be many years, the large numbers of people who develop AIDS in their 20s likely became infected with HIV as adolescents. Through June 1997, cumulative reported cases of AIDS have reached more than 22,000 among adults ages 20 through 24 and more than 85,000 among adults ages 25 through 29.

AIDS incidence—diagnosed, rather than reported cases—among adolescents can provide a more accurate picture of trends among different groups over time. Table HC 2.13.B presents estimated AIDS incidence among adolescents ages 13 through 19. Each of the figures (Figures HC 2.13.C and HC 2.13.D) also present the estimated incidence of AIDS among young adults ages 20 through 24 to show the substantial increases in diagnosed cases among this age group and the continuation of patterns across gender and race and ethnic groups.

**Differences by Race and Hispanic Origin.** Among adolescents ages 13 through 19 with AIDS, racial and ethnic minority teens are disproportionately affected. Taken together, cases of AIDS among black and Hispanic adolescents accounted for approximately 75 percent of both reported and diagnosed cases

<sup>51</sup>Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 1997*; 9(1):[8-11].

<sup>52</sup>Centers for Disease Control and Prevention. November 21, 1997. "Update: Perinatally Acquired HIV/AIDS — United States, 1997." *Morbidity and Mortality Weekly Report* 46(46).

<sup>53</sup>Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 1997*; 9(1).

<sup>54</sup>Rosenberg, P.S., Biggar, R.J., and Goedert, J.J. "Declining Age at HIV Infection in the United States." *NEJM* 330(11):789-90.

<sup>55</sup>Centers for Disease Control and Prevention. April 24, 1998. "Diagnosis and Reporting of HIV and AIDS in States with Integrated HIV and AIDS Surveillance--United States, January 1994-June 1997." *Morbidity and Mortality Weekly Report* 47(15).

in 1996. This trend is particularly evident since 1992 as the number of diagnosed cases among black adolescents has surpassed the number among their white peers (see Table 2.13.B and Figure HC 2.13.B).

**Differences by Gender.** The proportion of adolescent females ages 13 through 19 with diagnosed cases of AIDS has increased from approximately 20 percent of diagnosed cases in 1986 to nearly half of diagnosed cases for that age group in 1996 (see Table HC 2.13.B and Figure HC 2.13.C).

Table HC 2.13.A

### Estimated number of children under age 13 in the United States with perinatally acquired AIDS, by age and race and Hispanic origin: 1992-1996

	1992	1993	1994	1995	1996
<b>Age<sup>a</sup></b>					
All children under age 13	901	862	792	661	516
Under age 5	733	693	613	459	360
Ages 5-12	168	169	179	202	156
<b>Race and Hispanic Origin<sup>b</sup></b>					
White, non-Hispanic	133	126	92	95	67
Black, non-Hispanic	566	531	522	415	331
Hispanic	195	195	166	146	111

<sup>a</sup>Age represents age at AIDS diagnosis. Totals for ages include other race and ethnic groups not specified.

<sup>b</sup>Persons of Hispanic origin may be of any race.

Source: Centers for Disease Control and Prevention. November 21, 1997. "Update: Perinatally Acquired HIV/AIDS -- United States, 1997." *Morbidity and Mortality Weekly Report* 46(46).

Table HC 2.13.B

### Estimated AIDS incidence in adolescents ages 13 through 19 in the United States, by gender and race and Hispanic origin: 1981-1996

Year	Total <sup>a</sup>	Male	Female	White	Black	Hispanic
1981	*	*	*	*	*	*
1982	10	10	*	10	*	*
1983	10	10	10	*	10	*
1984	40	40	10	20	10	10
1985	60	50	10	20	30	10
1986	100	80	20	40	30	20
1987	110	90	20	50	40	10
1988	140	100	40	60	50	30
1989	160	110	50	70	60	30
1990	190	130	70	70	70	40
1991	200	140	60	90	80	40
1992	220	120	100	70	100	40
1993	240	150	90	70	110	50
1994	220	140	90	70	120	40
1995	220	120	100	60	110	40
1996	220	120	110	50	120	60

\*Indicates that the number of cases is less than 10.

<sup>a</sup>Totals include other race and ethnic groups not specified. Totals may not equal the sum of the rows due to rounding.

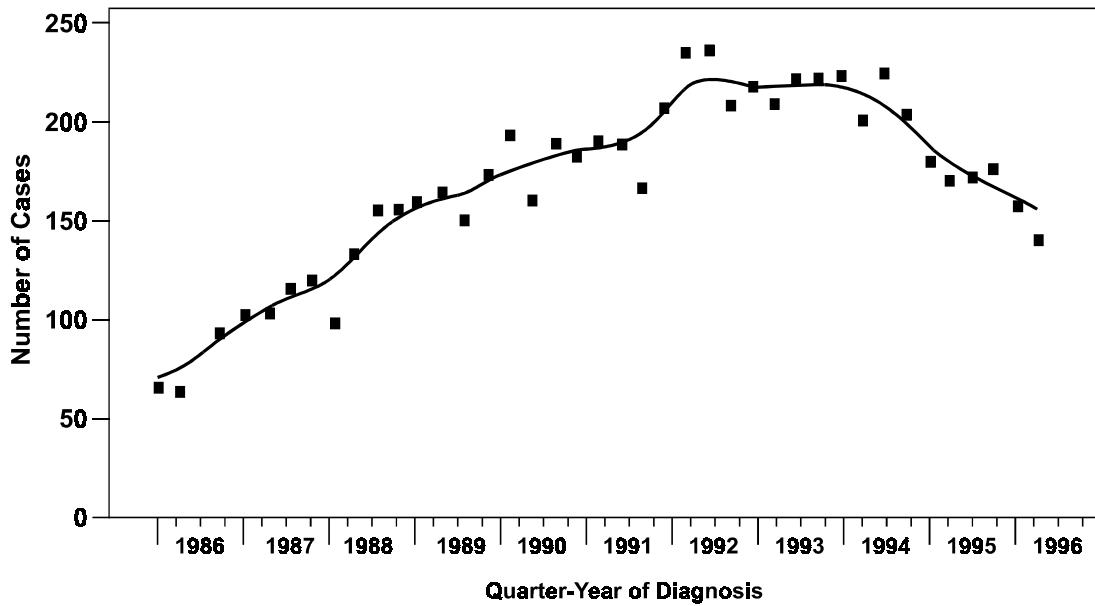
Note: Data are adjusted for reporting delay and for the 1993 expansion of the case definition.

Sources: Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention.



Figure HC 2.13.A

Reported perinatally acquired AIDS cases among children under age 13 in the United States: 1986-1996

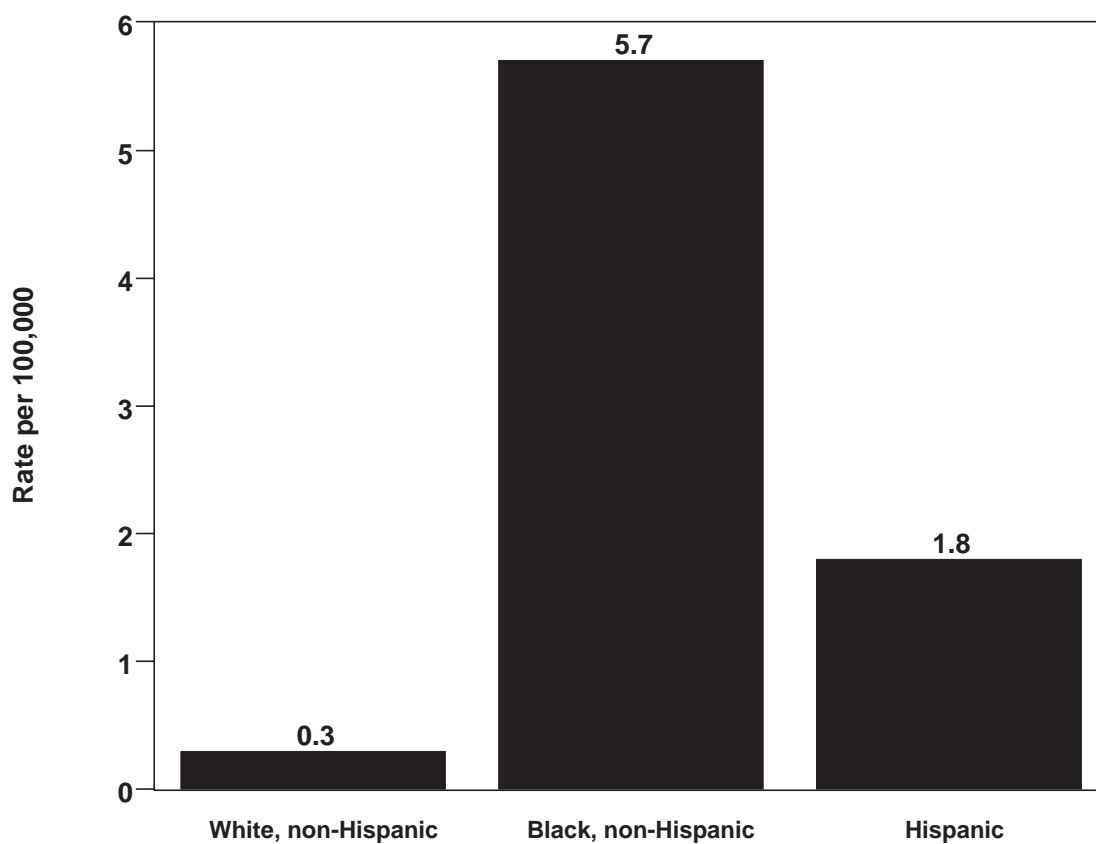


Note: Data are adjusted for reporting delays and unreported risk.

Sources: Pediatric AIDS Surveillance, L262 slide series (through 1996). Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention.

Figure HC.2.13.B

Reported AIDS rate (per 100,000) among children under age 13 in the United States, by race and Hispanic origin,<sup>a</sup> 1996

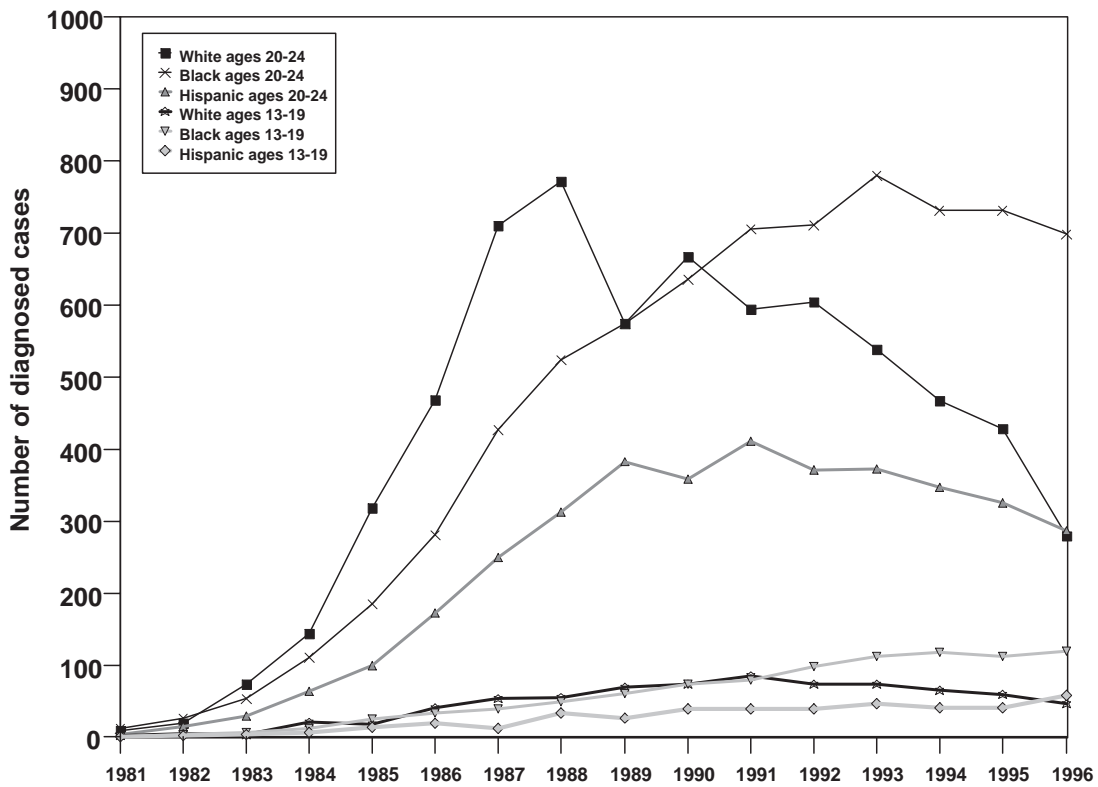


<sup>a</sup>Persons of Hispanic origin may be of any race.

Sources: Pediatric AIDS Surveillance, L262 slide series (through 1996). Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention.

Figure HC 2.13.C

Estimated AIDS incidence in adolescents ages 13 through 19 and young adults ages 20 through 24 in the United States, by race and Hispanic origin: 1981-1996

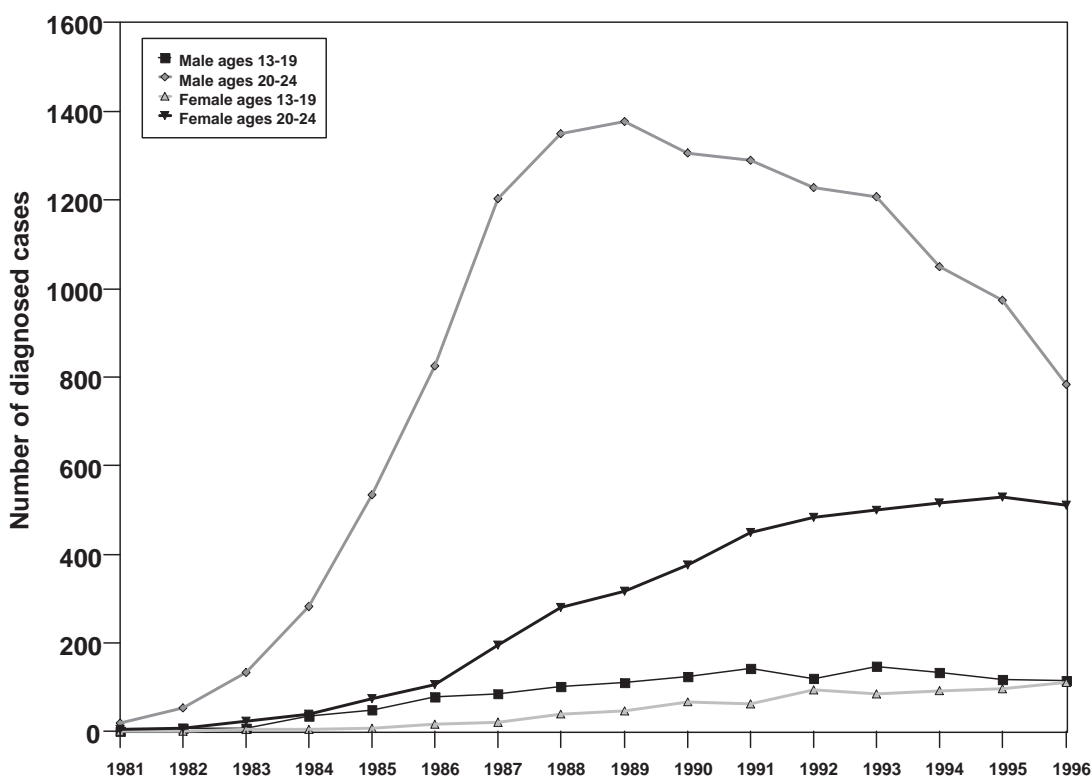


Note: Data are adjusted for reporting delay and for the 1993 expansion of the case definition.

Sources: Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention.

Figure HC 2.13.D

Estimated AIDS incidence in adolescents ages 13 through 19 and young adults ages 20 through 24 in the United States, by gender: 1981-1996



Note: Data are adjusted for reporting delay and for the 1993 expansion of the case definition.

Sources: Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention.

## HC 2.14

**SEXUALLY TRANSMITTED DISEASES AMONG ADOLESCENTS**

**Sexually transmitted diseases (STDs) have potentially severe consequences.** Gonorrhea infections are a major cause of pelvic inflammatory disease, which in turn may lead to adverse reproductive consequences such as infertility, ectopic pregnancy, or the birth of children with physical and mental developmental disabilities. Syphilis facilitates the transmission of HIV and may be particularly important to contributing to HIV transmission in areas with high rates of both infections.<sup>56</sup> The increase in sexual activity among teenagers described in Section SD 4.1 has exposed a growing number of young people to the risk of sexually transmitted diseases. Despite this increased risk, the reported rate of incidence has declined among adolescents for both gonorrhea and syphilis.

**Decline in Gonorrhea Rates.** Gonorrhea rates have declined for all youth since 1975 (see Table HC 2.14.A). Among youth ages 15 through 19, rates decreased by almost half, from 1,275.1 cases of gonorrhea per 100,000 youth in 1975, to 570.8 cases per 100,000 youth in 1996. Gonorrhea rates also decreased among youth ages 10 through 14, but the decline started in more recent years and has not been as dramatic as among older youth. The rate for this age group peaked at 68.9 cases per 100,000 youth in 1990; by 1996, the reported rate had declined to 32.9 cases per 100,000 youth ages 10 through 14.

**Differences in Gonorrhea Rates by Gender.** For youth ages 15 through 19 and ages 10 through 14, females have had consistently higher reported rates of gonorrhea than males (see Figure HC 2.14.A). In 1996, rates for females ages 15 through 19 were 756.8 per 100,000, versus 394.3 per 100,000 males of the same age.

**Differences in Gonorrhea Rates by Race and Hispanic Origin.**<sup>57</sup> Blacks have consistently had the highest reported rates of gonorrhea, frequently more than 10 times the rate of any other race or ethnic group. Rates for blacks have been falling since 1990 for both age groups (for ages 15 through 19, the rate dropped from 6,316.2 in 1990 to 3,063.6 per 100,000 in 1996). Hispanic youth gonorrhea rates have risen and fallen since 1990, the first year for which data by race and ethnicity were available, and 1996 rates for both age groups are at or near 1990 levels (see Table HC 2.14.A).

**Decline in Syphilis Rates.** Table HC 2.14.B shows that reported rates for primary and secondary syphilis have decreased for youth ages 10 through 14 and 15 through 19, since their peak in 1990. The rate for teens ages 15 through 19 is substantially higher than the rate for youth ages 10 through 14. The reported rate for syphilis in 1996 for ages 15 through 19 was 6.4 cases per 100,000, compared with less than one case per 100,000 for ages 10 through 14.

**Higher Syphilis Rates among Females.** Females from both age groups have reported more cases of syphilis than their male counterparts (see Figure HC 2.14.B). In 1996, females ages 15 through 19 had a rate of 8.6 cases per 100,000, about double the male rate of 4.3 cases per 100,000.

**Differences in Syphilis Rates by Race and Hispanic Origin.**<sup>58</sup> Black youth ages 15 through 19 have rates of syphilis more than 10 times higher than all other racial and ethnic groups throughout the period 1990 through 1996. Rates have been falling for all groups except Native Americans whose reported syphilis rates have fluctuated since 1990 (see Table HC 2.14.B).

<sup>56</sup>Centers for Disease Control and Prevention, Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, September 1997, p. 21.

<sup>57</sup>Estimates for whites and blacks exclude Hispanics of those races.

<sup>58</sup>Estimates for whites and blacks exclude Hispanics of those races.

Table HC 2.14.A

Reported rates of youth gonorrhea<sup>a</sup> in the United States, by age, gender, and race and Hispanic origin (per 100,000 population): selected years, 1975-1996

	1975	1980	1985	1990	1991	1992	1993	1994 <sup>b</sup>	1995	1996
<b>Ages 10-14</b>										
<b>Total</b>	46.7	48.7	47.7	68.9	64.6	57.8	48.5	48.3	41.3	32.9
<b>Gender</b>										
Male	20.9	23.6	23.8	32.1	32.4	26.2	20.4	15.9	12.4	9.1
Female	73.6	74.8	72.9	107.5	98.3	91.0	78.0	82.3	71.6	57.9
<b>Race and Hispanic origin<sup>c,d</sup></b>										
White, non-Hispanic	---	---	---	14.3	12.9	12.1	9.2	10.6	8.9	7.4
Black, non-Hispanic	---	---	---	386.8	364.7	322.4	281.6	276.4	236.7	178.7
Hispanic	---	---	---	15.3	16.5	17.7	20.5	19.0	19.3	16.0
Asian	---	---	---	4.5	9.9	6.2	4.6	6.3	5.6	3.2
Native American	---	---	---	22.7	28.9	19.1	37.2	29.5	19.0	21.5
<b>Ages 15-19</b>										
<b>Total</b>	1,275.1	1,187.3	1,189.9	1,114.4	1,031.4	869.6	728.3	733.7	670.7	570.8
<b>Gender</b>										
Male	1,103.9	953.4	930.5	993.7	954.6	771.0	611.4	585.2	503.1	394.3
Female	1,446.4	1,424.6	1,455.1	1,241.6	1,112.2	973.6	851.6	890.2	847.4	756.8
<b>Race and Hispanic origin<sup>c,d</sup></b>										
White, non-Hispanic	---	---	---	230.3	196.7	165.9	136.9	151.0	145.1	129.7
Black, non-Hispanic	---	---	---	6,316.2	5,963.9	4,973.1	4,256.2	4,235.8	3,813.9	3,063.6
Hispanic	---	---	---	268.7	273.1	281.0	264.0	240.3	270.1	246.8
Asian	---	---	---	70.0	91.5	76.7	81.7	84.9	81.0	66.8
Native American	---	---	---	414.6	366.0	319.0	360.4	355.0	296.2	349.9

<sup>a</sup>Although most areas generally adhere to the case definitions for sexually transmitted diseases (STDs) found in Case Definitions for Public Health Surveillance (*Morbidity and Mortality Weekly Report* 1990; 39: 1-43), there are significant differences between individual areas in case definitions as well as in the policies and systems for collecting surveillance data. In many areas, reporting from publicly supported institutions (e.g., STD clinics) was more complete than from other sources (e.g., private practitioners).

<sup>b</sup>For 1994, Georgia reported gonorrhea cases to CDC for only part of the year; therefore, Georgia cases and population were excluded from gonorrhea figures and tables. In past years, Georgia has been among the states reporting the highest gonorrhea rates.

<sup>c</sup>For the following years, the states/areas listed did not report race/ethnicity for most cases: 1990 (Baltimore, New Jersey, New York City, New York State, and Kentucky); 1991 (Baltimore, New York City, New York State, and Kentucky); 1992 (New York City and New York State); 1993 (New York City, New York State, and Georgia); 1994 (New York City, New York State, and Georgia); 1995 (Georgia, New Jersey, New York City, and New York State); and 1996 (New Jersey, New York City, and New York State). Massachusetts did not report age for most cases in 1990. Cases and population denominators have been excluded for these states/areas for the appropriate years.

<sup>d</sup>Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Data for 1975 from Centers for Disease Control and Prevention, Division of STD Prevention. *STD Statistics* (No. 135), 1986, Table 7; Data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. *STD Statistics* (No. 136), 1987, Table 3; Data for 1990-1992 from Division of STD/HIV Prevention. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, December 1994, Table 9.B; Data for 1993-1996 from Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, 1997, Table 12.B.

Table HC 2.14.B

Reported rates of youth primary and secondary syphilis<sup>a</sup> in the United States, by age, gender, and race and Hispanic origin (per 100,000 population): selected years, 1975-1996

	1975	1980	1985	1990	1991 <sup>b</sup>	1992	1993 <sup>b</sup>	1994	1995	1996 <sup>b</sup>
<b>Ages 10-14</b>										
<b>Total</b>	1.1	0.9	0.9	1.8	1.4	1.3	0.9	0.6	0.6	0.3
<b>Gender</b>										
Male	0.7	0.5	0.5	0.5	0.4	0.3	0.3	0.1	0.1	0.1
Female	1.5	1.3	1.4	3.2	2.5	2.3	1.6	1.2	1.0	0.5
<b>Race and Hispanic origin<sup>c</sup></b>										
White, non-Hispanic	---	---	---	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Black, non-Hispanic	---	---	---	10.6	8.6	8.1	5.9	3.8	3.5	1.6
Hispanic	---	---	---	1.1	0.4	0.4	0.1	0.1	0.1	0.1
Asian	---	---	---	0.2	0.3	0.0	0.2	0.0	0.0	0.0
Native American	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0	0.0
<b>Ages 15-19</b>										
<b>Total</b>	17.8	17.2	17.0	29.8	27.8	22.5	17.0	12.7	10.1	6.4
<b>Gender</b>										
Male	18.0	19.2	16.3	20.9	19.1	15.5	10.8	8.3	6.6	4.3
Female	17.5	15.1	17.7	39.2	37.0	29.9	23.5	17.3	13.8	8.6
<b>Race and Hispanic origin<sup>c</sup></b>										
White, non-Hispanic	---	---	---	2.9	2.6	2.0	1.6	1.4	1.1	0.9
Black, non-Hispanic	---	---	---	174.6	164.8	136.7	103.5	76.5	60.9	36.9
Hispanic	---	---	---	15.2	12.5	8.5	5.6	2.8	2.4	1.9
Asian	---	---	---	1.7	1.9	1.4	1.0	0.8	0.5	0.8
Native American	---	---	---	2.8	7.0	2.7	0.6	2.4	4.2	1.2

<sup>a</sup>Although most areas generally adhere to the case definitions for sexually transmitted diseases (STDs) found in Case Definitions for Public Health Surveillance (*Morbidity and Mortality Weekly Report* 1990; 39: 1-43), there are significant differences between individual areas in case definitions as well as in the policies and systems for collecting surveillance data. In many areas reporting from publicly supported institutions (e.g., STD clinics) was more complete than from other sources (e.g., private practitioners).

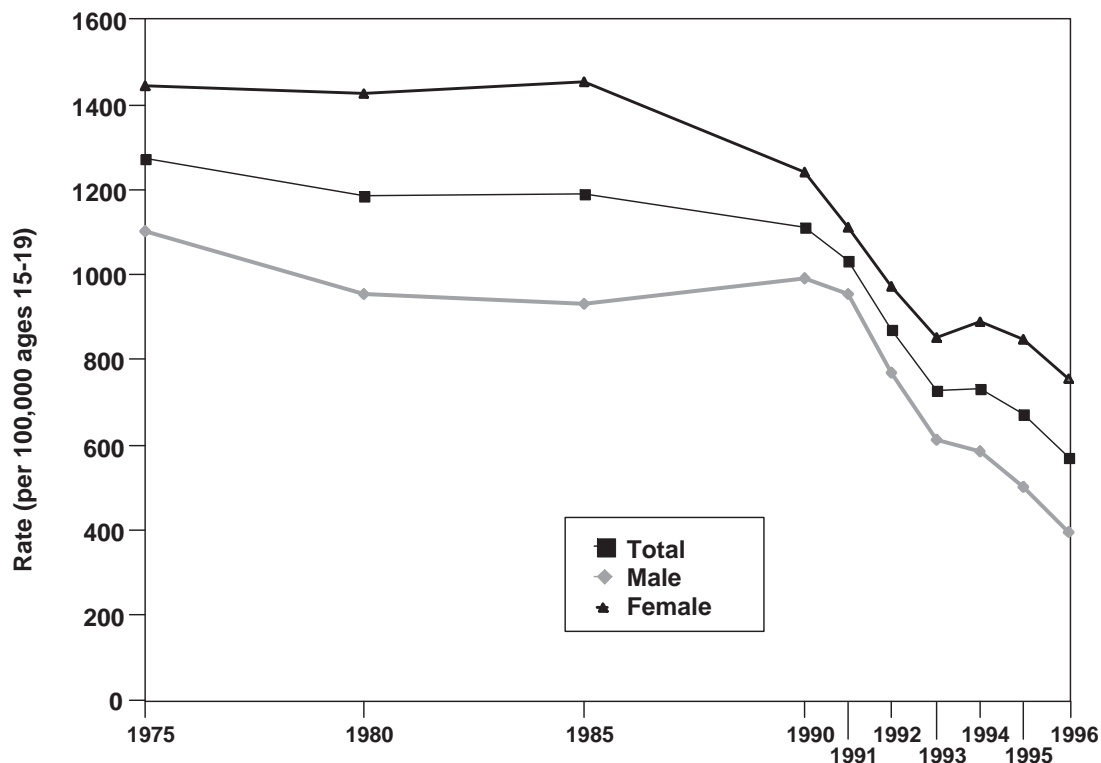
<sup>b</sup>For the indicated states/areas, cases and population denominators have been excluded for the years indicated: 1991 (Kentucky, as race/ethnicity was not reported for most cases); 1993 (Baltimore, Maryland, because age was not reported for most cases); 1996 (Rhode Island, because race/ethnicity was not reported for most cases).

<sup>c</sup>Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Data for 1975 from Centers for Disease Control and Prevention, Division of STD Prevention. *STD Statistics* (No. 135), 1986, Table 8; Data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. *STD Statistics* (No. 136), 1987, Table 2; Data for 1990-1992: Division of STD/HIV Prevention. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, December 1994, Table 21.B; Data for 1993-1996: Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, 1997, Table 24.B.

Figure HC 2.14.A

Reported rates of gonorrhea<sup>a</sup> for youth ages 15 through 19 in the United States, by gender (per 100,000 population ages 15 through 19): selected years, 1975-1996



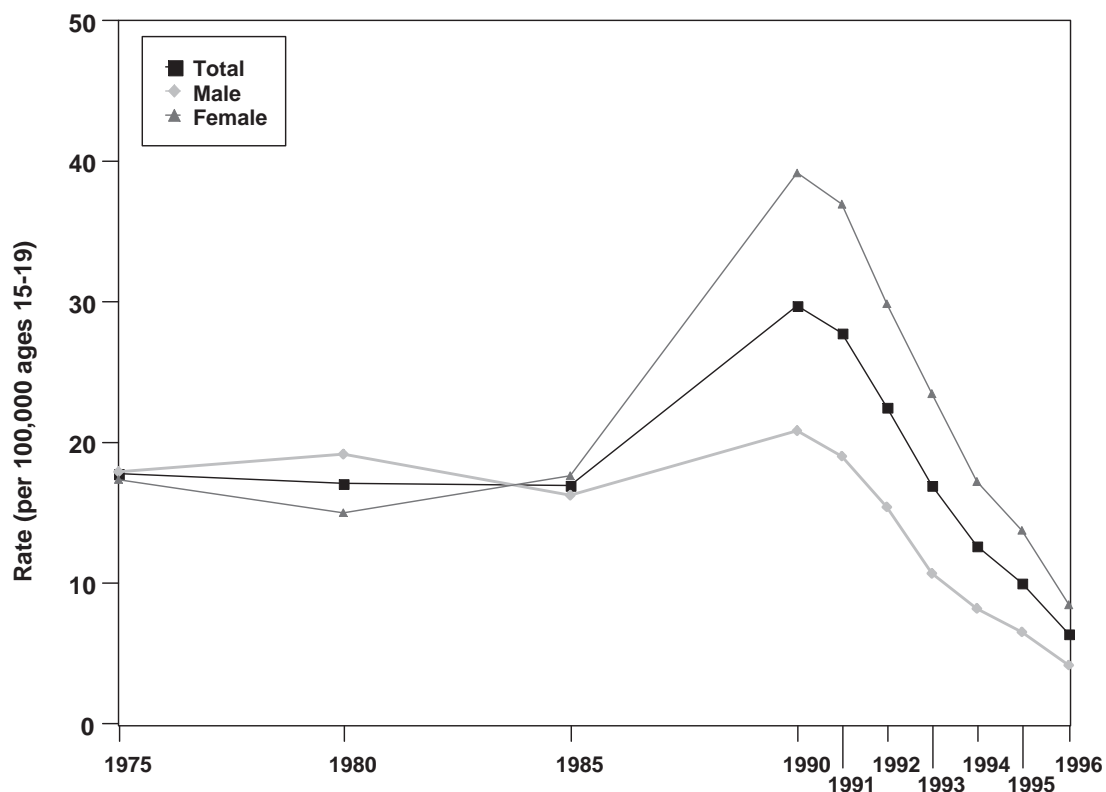
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Figure HC 2.14.B

Reported rates of primary and secondary syphilis<sup>a</sup> for youth ages 15 through 19 in the United States, by gender (per 100,000 population ages 15 through 19): selected years, 1975-1996



<sup>a</sup>Although most areas generally adhere to the case definitions for sexually transmitted diseases (STDs) found in Case Definitions for Public Health Surveillance (*Morbidity and Mortality Weekly Report* 1990; 39: 1-43), there are significant differences between individual areas in case definitions as well as in the policies and systems for collecting surveillance data. In many areas, reporting from publicly supported institutions (e.g., STD clinics) was more complete than from other sources (e.g., private practitioners).

Sources: Data for 1975 from Centers for Disease Control and Prevention, Division of STD Prevention. *STD Statistics* (No. 135), 1986, Table 8; Data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. *STD Statistics* (No. 136), 1987, Table 2; Data for 1990-1992: Division of STD/HIV Prevention. *Sexually Transmitted Disease Surveillance*, 1993. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, December 1994, Table 21.B; Data for 1993-1996: Division of STD Prevention. *Sexually Transmitted Disease Surveillance*, 1996. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, 1997, Table 24.B.

