

## HC 2.1

**HEALTHY BIRTHS**

A healthy birth is defined here as a birth with the following characteristics: a five-minute Apgar<sup>22</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.

Table HC 2.1 reports the percentage of all births qualifying as healthy births, by race and Hispanic origin and by the mother's marital status and educational background. The table shows an increase between 1985 and 1997 in the percentage of all births defined as healthy (from 59.1 percent to 66.8 percent). This general trend is evident for all of the population subgroups represented in Table HC 2.1, though married mothers experienced a slight decline in 1997.

**Differences across Population Subgroups.** While healthy births are increasing for most of the subgroups presented in Table HC 2.1, there are also persistent disparities across subgroups (see Figure HC 2.1).

- In 1997, 52.9 percent of births to black women were defined as healthy, compared with 58.2 percent of births to Hispanic women and 69.9 percent of births to white women.
- In 1997, 73.0 percent of births to married women were healthy, compared with 53.5 percent of births to single women.
- In 1997, 70.6 percent of births to women with at least a high school education were healthy, compared with 51.2 percent of births to women with less than a high school education.

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<sup>22</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 Researchers in Anesthesia and Analgesia* 32: 260-267.

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, 1985-1997

	1985	1991	1994	1995	1996	1997
<b>Total</b>	59.1	61.1	65.9	66.6	66.6	66.8
<b>Race and Hispanic origin<sup>b</sup></b>						
White	62.7	65.0	69.8	70.1	69.9	70.0
Black	41.5	43.3	49.7	51.3	52.2	52.9
Hispanic	48.6	49.8	55.4	56.3	57.2	58.2
<b>Marital status<sup>c</sup></b>						
Married	65.0	68.6	73.0	73.3	73.2	73.0
Single	37.9	43.1	50.6	52.2	52.9	53.5
<b>Education</b>						
High school or more	64.0	67.1	70.1	70.6	70.6	70.6
Less than high school	40.0	43.3	48.8	50.0	50.4	51.2

<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.

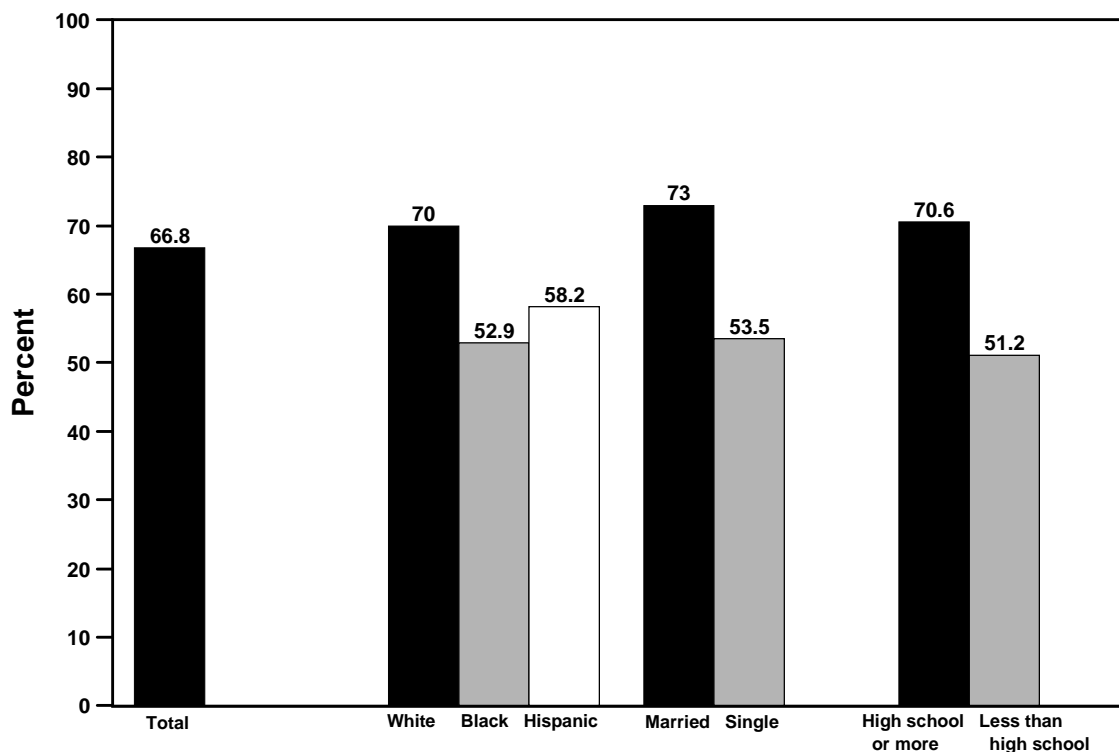
<sup>b</sup>Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

<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. 1994. "Healthy Birth Index." Final Report. Submitted to the Annie E. Casey Foundation, Kids Count Indicator Development Project. Washington, D.C.: Child Trends; special tabulations for 1994-1997 birth data by Sally C. Curtin, National Center for Health Statistics.

Figure HC2.1

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: 1997



<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.

Source: Special tabulations for 1997 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>23</sup> These babies account for four-fifths of all neonatal deaths (deaths under 28 days of age) and are 23 times more likely to die during the first year than are heavier infants.<sup>24</sup>

Although slight declines are seen in the early 1980s, overall the percentage of all infants born at low birth-weight has increased steadily since 1984, when 6.7 percent of infants were born at low birth-weight, compared with 7.6 percent in 1998 (see Table HC 2.2 data for 1998 are preliminary).

**Differences by Race and Ethnicity.** Low birth-weight rates are substantially higher among black infants than among other races and Hispanics. The percentages of low birth-weight infants among whites, American Indians/Alaska 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, compared to around 13 percent for blacks.

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 Asian/Pacific Islander women. In 1997, these percentages were 5.1 percent and 8.3 percent, respectively. Among Hispanics, Mexican-American women have generally had the lowest percentage of low birth-weight infants (ranging from 5.6 to 6.0 percent since 1980), and Puerto Rican women have had the highest (ranging from 8.7 to 9.4 percent since 1980).

**Differences by Age.** For women in all age groups, there was a decline in the percentage of low-weight births between 1970 and 1984. Since 1984, however, that percentage increased slightly across nearly all age groups. The following trends, illustrated in Table HC 2.2, are particularly noteworthy:

- Mothers under 15 years if age continue to be the most likely to have a low birth-weight baby; risk of low birth-weight is lowest among births to women 25-29 years of age.
- The recent rise in overall low birth-weight, especially among non-Hispanic white births, has been importantly influenced by the increase in the rate of multiple births; twins, triplets, and other higher order multiples are at much greater risk than singletons of being born at weights of less than 2,500 grams.

<sup>23</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 MacDorman, M.F. and Atkinson, J.A. 1999. "Infant Mortality Statistics from the 1997 Period Linked Birth/Infant Death Data Set." *Monthly Vital Statistics Report* 47(23). Hyattsville, Md.: National Center for Health Statistics, 1999.

<sup>24</sup> MacDorman, M.F. and Atkinson, J.A. 1999. "Infant Mortality Statistics from the 1997 Period Linked Birth/Infant Death Data Set." *National Vital Statistics Report* 47(23). Hyattsville, Md.: National Center for Health Statistics, 1999.; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Births: Final Data for 1997." *National Vital Statistics Report* 47(18). Hyattsville, Md.: National Center for Health Statistics.

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**SEE TABLE FOLLOWING PAGES**

## HEALTH CONDITIONS

Table HC 2.2 (Part 1)

Low birth-weight<sup>a</sup> infants as a percentage of all infants born in the United States by mother's race/ethnicity<sup>b</sup> and by age: selected years, 1970-1998<sup>f</sup>

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

<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 are based on data from 22 states that reported Hispanic origin on the birth certificate in 1980, 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>Includes persons of Hispanic origin.

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

<sup>e</sup>Data for 1997 are for ages 35-54 years.

<sup>f</sup>Data for 1998 are preliminary.

Sources: Martin, J.A., Smith, B.L., Mathews, T.J., Ventura, S.J. 1999. "Births and Deaths: Preliminary Data for 1998." *National Vital Statistics Reports* 47(25). Hyattsville, Md.: National Center for Health Statistics. Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11, Supp.). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 45; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1999. "Births: Final Data for 1997." *National Vital Statistics Report* 47 (18). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 45; National Center for Health Statistics. *Health, United States, 1998*. Hyattsville, Md.: National Center for Health Statistics, 1998, Table 11; and unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.

Table HC 2.2 (Part 2)

Low birth-weight<sup>a</sup> infants as a percentage of all infants born in the United States by mother's race/ethnicity<sup>b</sup> and by age: selected years, 1970-1998<sup>f</sup>

	1992	1993	1994	1995	1996	1997	1998
<b>Total</b>	7.1	7.2	7.3	7.3	7.4	7.5	7.6
<b>Race/ethnicity</b>							
White <sup>c</sup>	5.8	6.0	6.1	6.2	6.3	6.5	6.5
Black <sup>c</sup>	13.3	13.3	13.2	13.1	13.0	13.0	13.0
American Indian/Alaska Native <sup>c</sup>	6.2	6.4	6.5	6.6	6.5	6.8	NA
Asian/Pacific Islander <sup>c</sup>	6.6	6.6	6.8	6.9	7.1	7.2	NA
Chinese	5.0	4.9	4.8	5.3	5.0	5.1	NA
Japanese	7.0	6.5	6.9	7.3	7.3	6.8	NA
Filipino	7.4	7.0	7.8	7.8	7.9	8.3	NA
Hawaiian and part Hawaiian	6.9	6.8	7.2	6.8	6.8	7.2	NA
Other Asian or Pacific Islander	6.7	6.9	7.1	7.1	7.4	7.5	NA
Hispanic origin <sup>b,d</sup>	6.1	6.2	6.3	6.3	6.3	6.4	6.4
Mexican American	5.6	5.8	5.8	5.8	5.9	6.0	NA
Puerto Rican	9.2	9.2	9.1	9.4	9.2	9.4	NA
Cuban	6.1	6.2	6.3	6.5	6.5	6.8	NA
Central and South American	5.8	5.9	6.0	6.2	6.0	6.3	NA
Other and unknown Hispanic	7.2	7.5	7.5	7.5	7.7	7.9	NA
<b>Age</b>							
Under age 15	13.2	13.5	13.7	13.5	12.8	13.6	13.1
15-19 years	9.3	9.2	9.3	9.3	9.3	9.5	9.5
20-24 years	7.1	7.2	7.3	7.3	7.4	7.4	7.5
25-29 years	6.2	6.4	6.4	6.4	6.5	6.6	6.7
30-34 years	6.5	6.7	6.7	6.7	6.8	6.9	7.0
35-49 years <sup>e</sup>	7.8	8.1	8.2	8.3	8.3	8.6	8.7

<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 are based on data from 22 states that reported Hispanic origin on the birth certificate in 1980, 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>Includes persons of Hispanic origin.

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

<sup>e</sup>Data for 1997 are for ages 35-54 years.

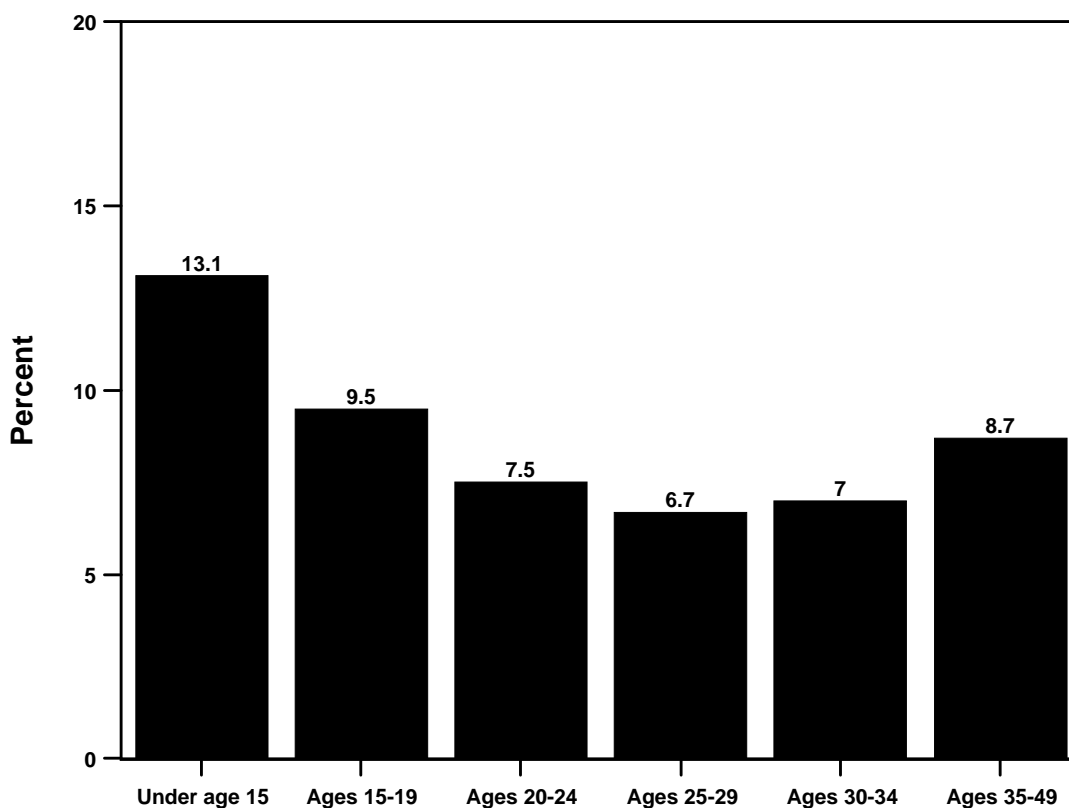
<sup>f</sup>Data for 1998 are preliminary.

Sources: Martin, J.A., Smith, B.L., Mathews, T.J., Ventura, S.J. 1999. "Births and Deaths: Preliminary Data for 1998." *National Vital Statistics Reports* 47(25). Hyattsville, Md.: National Center for Health Statistics. Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11, Supp.). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 45; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1999. "Births: Final Data for 1997." *National Vital Statistics Report* 47 (18). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 45; National Center for Health Statistics. *Health, United States, 1998*. Hyattsville, Md.: National Center for Health Statistics, 1998, Table 11; and unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.



Figure HC 2.2

Low birth-weight<sup>a</sup> infants as a percentage of all infants born in the United States, by age of mother: 1998<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 1998 are preliminary.

Sources: Martin, J.A., Smith, B.L., Mathews, T.J., Ventura, S.J. 1999. "Births and Deaths: Final Data for 1998." *National Vital Statistics Reports* 47(25). Hyattsville, Md.: 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 94 times more likely to die during the first year of life than babies weighing at least 2,500 grams.<sup>25</sup>

The percentage of infants born at very low birth weight has remained relatively constant for the last 27 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>26</sup> The proportion then increased slightly to 1.3 percent, where it remained from 1990 to 1995, then to 1.4 percent in 1996-1998.

**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/Alaska Native, and Asian/Pacific Islander infants, the percentage of very low weight births has remained at or about 1 percent from 1970 through 1997. 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 1997.

**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 fluctuated between 3.1 and 3.6 percent between 1975 and 1998. 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 ages 20-39 years.

<sup>25</sup> MacDorman, M.F. and Atkinson, J.O. 1999. "Infant Mortality Statistics from the 1997 Period Linked Birth/Infant Death Data Set." *National Vital Statistics Report* 47(23). Hyattsville, Md.: National Center for Health Statistics; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1999. "Births: Final Data for 1997." *National Vital Statistics Reports* 47 (18). Hyattsville, Md.: National Center for Health Statistics.

<sup>26</sup> Data for individual years indicate that the rate remained at 1.2 percent through 1989 (not shown).

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**SEE TABLE FOLLOWING PAGES**

Table HC 2.3 (Part 1)

Very low birth-weight<sup>a</sup> infants as a percentage of all infants born in the United States, by mother's race/ethnicity<sup>b</sup> and by age: selected years, 1970-1998<sup>f</sup>

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

<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 are based on data from 22 states that reported Hispanic origin on the birth certificate in 1980, 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>Includes persons of Hispanic origin.

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

<sup>e</sup>Data for 1997 are for ages 35-54 years.

<sup>f</sup>Data for 1998 are preliminary.

Sources: Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Births: Final Data for 1997." *National Vital Statistics Reports* 47 (18). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, 44, and 45; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11, Supp.). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 45; National Center for Health Statistics. 1998. *Health, United States, 1998*. Hyattsville, Md.: National Center for Health Statistics, Table 11; and unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.

Table HC 2.3 (Part 2)

Very low birth-weight<sup>a</sup> infants as a percentage of all infants born in the United States, by mother's race/ethnicity<sup>b</sup> and by age: selected years, 1970-1998<sup>f</sup>

	1992	1993	1994	1995	1996	1997	1998
<b>Total</b>	1.3	1.3	1.3	1.3	1.4	1.4	1.4
<b>Race/ethnicity<sup>b</sup></b>							
White <sup>c</sup>	1.0	1.0	1.0	1.1	1.1	1.1	1.2
Black <sup>c</sup>	3.0	3.0	3.0	3.0	3.0	3.0	3.1
American Indian/Alaska Native <sup>c</sup>	1.0	1.1	1.1	1.1	1.2	1.2	NA
Asian/Pacific Islander <sup>c</sup>	0.9	0.9	0.9	0.9	1.0	1.1	NA
Chinese	0.7	0.6	0.6	0.7	0.6	0.7	NA
Japanese	0.9	0.7	0.9	0.9	0.8	0.8	NA
Filipino	1.1	1.0	1.2	1.1	1.2	1.3	NA
Hawaiian and part Hawaiian	1.0	1.1	1.2	0.9	1.0	1.4	NA
Other Asian or Pacific Islander	0.9	0.9	0.9	0.9	1.0	1.1	NA
Hispanic origin <sup>d</sup>	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Mexican American	0.9	1.0	1.0	1.0	1.0	1.0	NA
Puerto Rican	1.7	1.7	1.6	1.8	1.7	1.8	NA
Cuban	1.2	1.2	1.3	1.2	1.3	1.4	NA
Central and South American	1.0	1.0	1.1	1.1	1.1	1.2	NA
Other and unknown Hispanic	1.1	1.2	1.3	1.3	1.5	1.3	NA
<b>Age</b>							
Under age 15	3.1	3.6	3.4	3.2	3.2	3.1	3.3
15-19 years	1.8	1.8	1.7	1.7	1.7	1.8	1.8
20-24 years	1.3	1.3	1.3	1.3	1.3	1.4	1.4
25-29 years	1.1	1.1	1.2	1.2	1.2	1.2	1.3
30-34 years	1.2	1.2	1.2	1.2	1.3	1.3	1.4
35-49 years <sup>e</sup>	1.5	1.5	1.6	1.6	1.6	1.7	1.7

<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 are based on data from 22 states that reported Hispanic origin on the birth certificate in 1980, 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>Includes persons of Hispanic origin.

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

<sup>e</sup>Data for 1997 are for ages 35-54 years.

<sup>f</sup>Data for 1998 are preliminary.

Sources: Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Births: Final Data for 1997." *National Vital Statistics Reports* 47 (18). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, 44, and 45; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1998. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11, Supp.). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 45; National Center for Health Statistics. 1998. *Health, United States, 1998*. Hyattsville, Md.: National Center for Health Statistics, Table 11; 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 1996, black parents were less likely than white parents to report that their children were in very good or excellent health. In 1996, 75 percent of black children under age 5 were reported in very good or excellent health, compared with 82 percent of white children. Seventy percent of black children ages 5 to 17 were reported in very good or excellent health, compared with 81 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 1996, 64 percent of children under age 18 who fell below the poverty line were reported to be in very good or excellent health, compared with 84 percent for children at or above the poverty line. Sixty-seven 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 87 percent of children in families with annual incomes of \$35,000 or more in 1996. A similar pattern exists for children ages 5 to 17 (see Figure HC 2.4.A).

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, poverty status, and family income:<sup>a</sup> selected years, 1984-1996

	1984	1987	1990	1991	1992	1993	1994	1995	1996
<b>Ages 0-17</b>									
<b>Total</b>	78	81	81	80	80	79	79	81	79
<b>Poverty status</b>									
Below poverty	62	65	66	65	65	64	64	65	64
At or above poverty	82	84	84	83	83	83	83	85	84
<b>Under age 5</b>									
<b>Total</b>	79	81	81	81	80	80	81	81	80
<b>Race</b>									
White	81	84	83	—	82	82	83	83	82
Black	67	71	72	—	70	71	72	72	75
<b>Gender</b>									
Male	78	—	80	—	79	80	81	80	80
Female	79	—	82	—	81	80	81	82	81
<b>Annual family income<sup>a</sup></b>									
Under \$10,000	—	—	—	—	—	—	—	—	67
\$10,000-\$19,999	—	—	—	—	—	—	—	—	74
\$20,000-\$34,999	—	—	—	—	—	—	—	—	82
\$35,000 or more	—	—	—	—	—	—	—	—	87
<b>Poverty status</b>									
Below poverty	66	66	69	68	67	68	68	66	68
At or above poverty	82	85	84	84	84	84	84	86	85
<b>Ages 5-17</b>									
<b>Total</b>	77	80	80	80	80	79	79	80	79
<b>Race</b>									
White	80	83	83	—	82	81	81	82	81
Black	65	66	68	—	68	70	68	70	70
<b>Gender</b>									
Male	78	—	81	—	80	79	79	80	79
Female	77	—	80	—	79	78	78	80	79
<b>Annual family income<sup>a</sup></b>									
Under \$10,000	—	—	—	—	—	—	—	—	59
\$10,000-\$19,999	—	—	—	—	—	—	—	—	68
\$20,000-\$34,999	—	—	—	—	—	—	—	—	77
\$35,000 or more	—	—	—	—	—	—	—	—	88
<b>Poverty status</b>									
Below poverty	60	65	64	64	64	63	62	64	62
At or above poverty	81	83	84	83	83	82	82	85	83

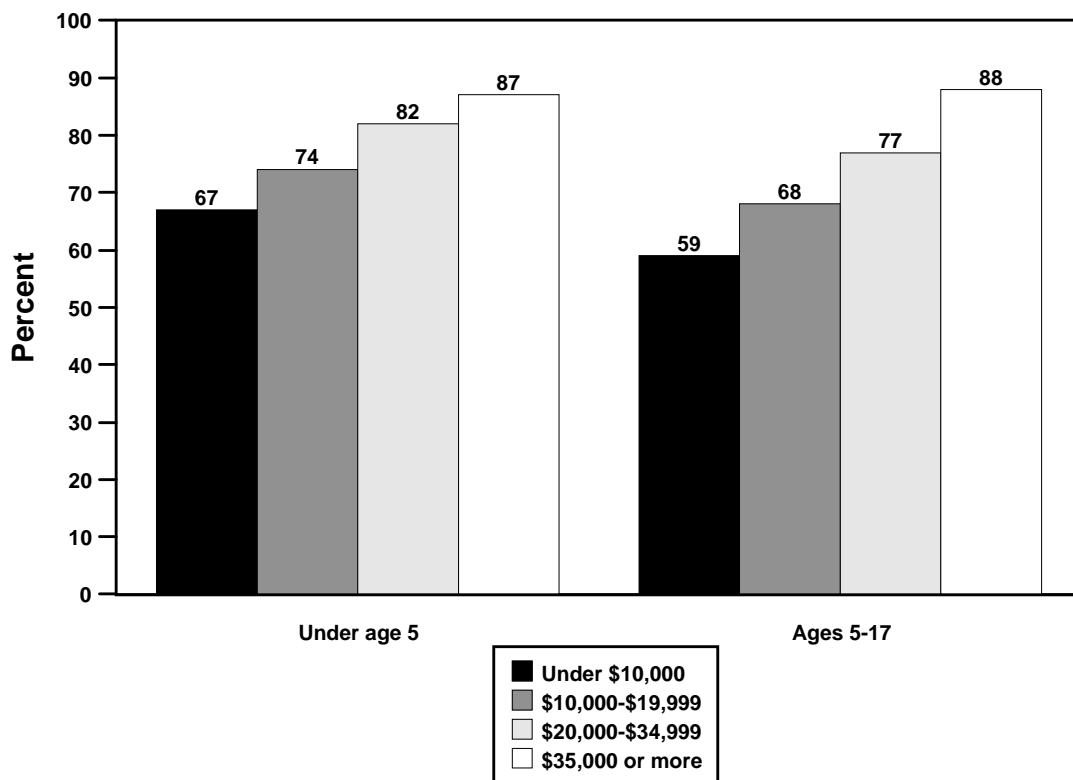
<sup>a</sup>Family income is not adjusted in the National Health Interview Survey for comparison over time; therefore, family income is shown only for the most recent year. Income breaks are those provided by the National Center for Health Statistics.

Sources: Data from the National Health Interview Survey, National Center for Health Statistics (unpublished tabulations provided by the Centers for Disease Control and Prevention and other estimates as published in *America's Children: Key National Indicators of Well-Being, 1998*, Federal Interagency Forum on Child and Family Statistics, Table HEALTH1, available online at <http://childstats.gov/ac1998/xhealth1.htm>); Benson, V., and Marono, M.A. 1996. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics 10* (199), Table 70. National Center for Health Statistics. Also previous issues of this report [Series 10, Nos. 156, 166, 181, 189, 190, and 199 (Table 70 in each)].



Figure HC2.4.A

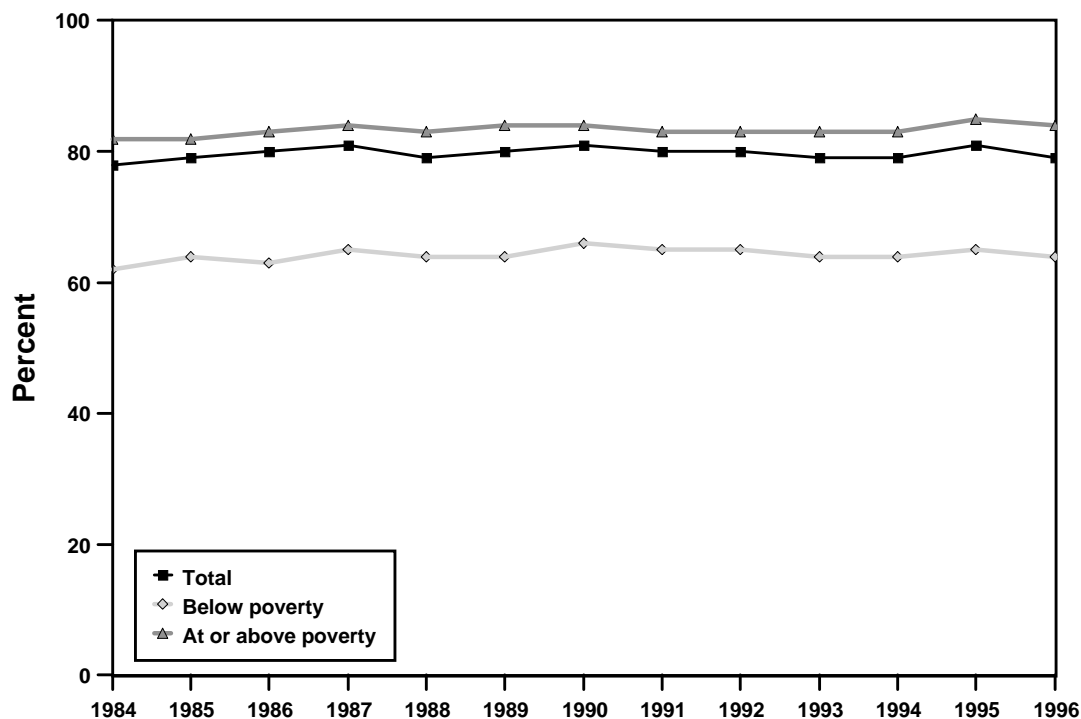
Percentage of children under age 18 in the United States who are reported by their parents to be in very good or excellent health, by age and family income: 1996



Sources: Unpublished data from the National Health Interview Survey, provided by the National Center for Health Statistics, Centers for Disease Control and prevention.

Figure HC 2.4.B

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 poverty status: 1984-1996



Sources: Data from the National Health Interview Survey, National Center for Health Statistics (unpublished tabulations provided by the Centers for Disease Control and prevention and other estimates as published in *America's Children: Key National Indicators of Well-Being, 1998*, Federal Interagency Forum on Child and Family Statistics, Table HEALTH1, available online at <http://childstats.gov/ac1998/xhealth1.htm>); Benson, V., and Marono, M.A. 1996. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics* 10 (199), Table 70. National Center for Health Statistics. Also previous issues of this report [Series 10, Nos. 156, 166, 181, 189, 190, and 199 (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 1996, respiratory conditions were the most prevalent chronic health problems experienced by children under age 17 (see Table HC 2.5). The incidence of asthma and chronic sinusitis increased between 1984 and 1995 but decreased in 1996. Chronic sinusitis affected 47 children per thousand in 1984, 76 per thousand in 1995, and 64 per thousand in 1996. Meanwhile, asthma affected 43 children per thousand in 1984, compared with 62 per thousand in 1996. Asthma attacks, which involve episodes of wheezing, breathlessness, and coughing, can range from mild to life-threatening, and children with asthma miss an average of twice as many school days as children without asthma.<sup>27</sup> The prevalence rate for asthma increased between 1980 and 1994 for all race groups, both sexes, and all age groups, with the most substantial increase among children under four (a 160 percent increase) and ages 5 to 14 (a 74 percent increase).<sup>28</sup>

Between 1984 and 1996, the number of children suffering from chronic diseases of the tonsils or adenoids (34 and 20 per thousand in 1984 and 1996, respectively), hearing impairments (24 and 13), and anemia (11 and 5) decreased.

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<sup>27</sup> U.S. Department of Health and Human Services Press Office. May 21, 1998. "HHS Targets Efforts on Asthma." *Fact Sheet*. Available online at <http://www.hhs.gov/news/press/1998.html>.

<sup>28</sup> Mannino, D.M., Homa, D.M., Pertowski, C.A., Ashizawa, A., Nixon, L.L., Johnson, C.A., Ball, L.B., Jack, E., and Kang, D.S. 1998. "Surveillance for Asthma: United States, 1960-1995." *Morbidity and Mortality Weekly Report* 47 (SS-1): 1-28.

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, 1984-1996

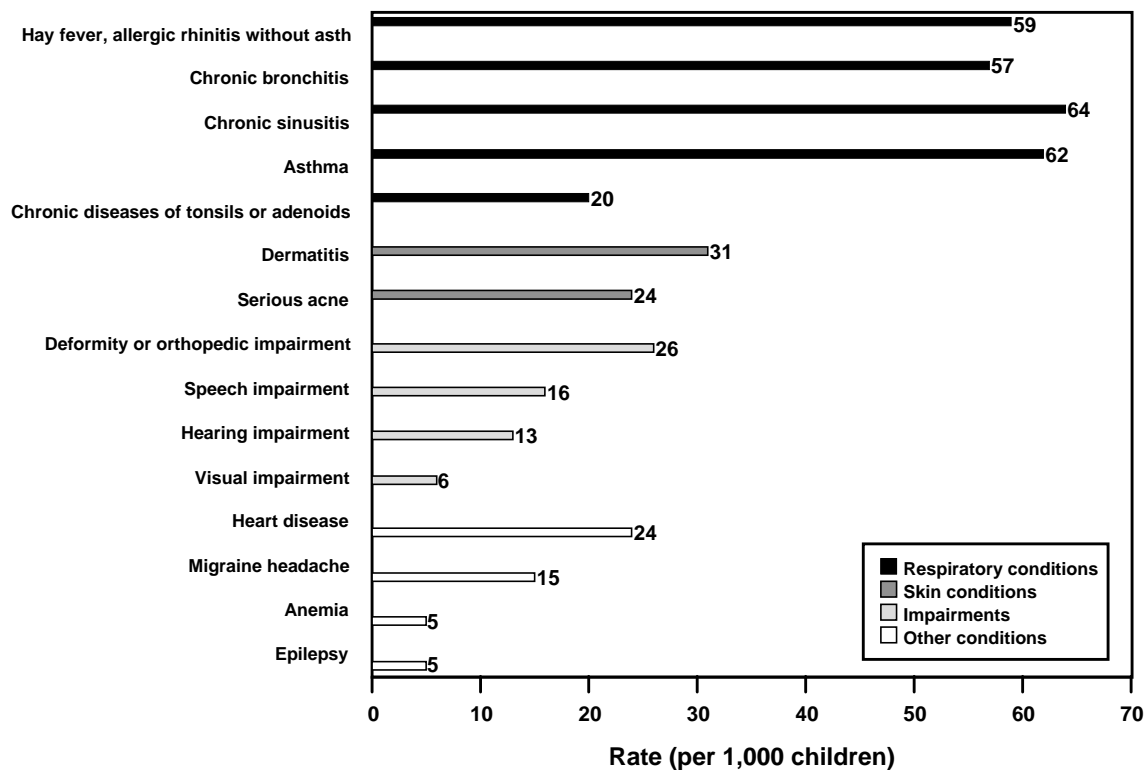
	Rate per 1,000							1996
	1984	1987	1990	1992	1993	1994	1995	
<b>Respiratory conditions</b>								
Hay fever, allergic rhinitis without asthma	61	64	57	71	57	61	66	59
Chronic bronchitis	50	62	53	54	59	55	54	57
Chronic sinusitis	47	58	57	69	80	65	76	64
Asthma	43	53	58	63	72	69	75	62
Chronic diseases of tonsils or adenoids	34	30	23	28	26	23	19	20
<b>Skin conditions</b>								
Dermatitis	39	32	31	41	36	38	35	31
Serious acne	26	26	26	25	28	29	26	24
<b>Impairments</b>								
Deformity or orthopedic impairment	35	36	29	33	29	28	30	26
Speech impairment	16	19	14	21	20	21	18	16
Hearing impairment	24	16	21	15	17	18	15	13
Visual impairment	9	10	9	10	7	9	7	6
<b>Other conditions</b>								
Heart disease	23	22	19	19	20	18	19	24
Migraine headache	11	8	14	13	13	16	13	15
Anemia	11	8	10	11	9	12	7	5
Epilepsy	7	4	4	3	5	5	4	5

<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; Benson, V., and Marono, M.A. 1996. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics* 10 (199), Tables 57 and 62. National Center for Health Statistics; also previous issues of this report [Series 10, Nos. 156, 166, 181, 189, 190, and 193 (Tables 57 and 62 in each)].

Figure HC2.5

Selected chronic health conditions<sup>a</sup> for children under age 18 (rate per 1,000 children) in the United States: 1996



<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.

Source: Unpublished data from the National Health Interview Survey, National Center for Health Statistics.



## 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, noninsulin-dependent diabetes, and some cancers.<sup>29</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>30</sup>

**Differences by Age.** In the earliest period shown in 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 were overweight, compared with 12.6 percent of females; 2.4 percent of males ages 12 through 17 were overweight, compared with 10.5 percent of females.

**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 six percentage points above that of their white peers (see Figure HC 2.6).

<sup>29</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>30</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
Male	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
Female	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	11.4
Male	—	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
Female	—	5.0	7.2	6.0	10.5
White	—	4.8	6.6	5.4	10.0
Black	—	6.4	10.5	10.2	16.1

<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 six-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.

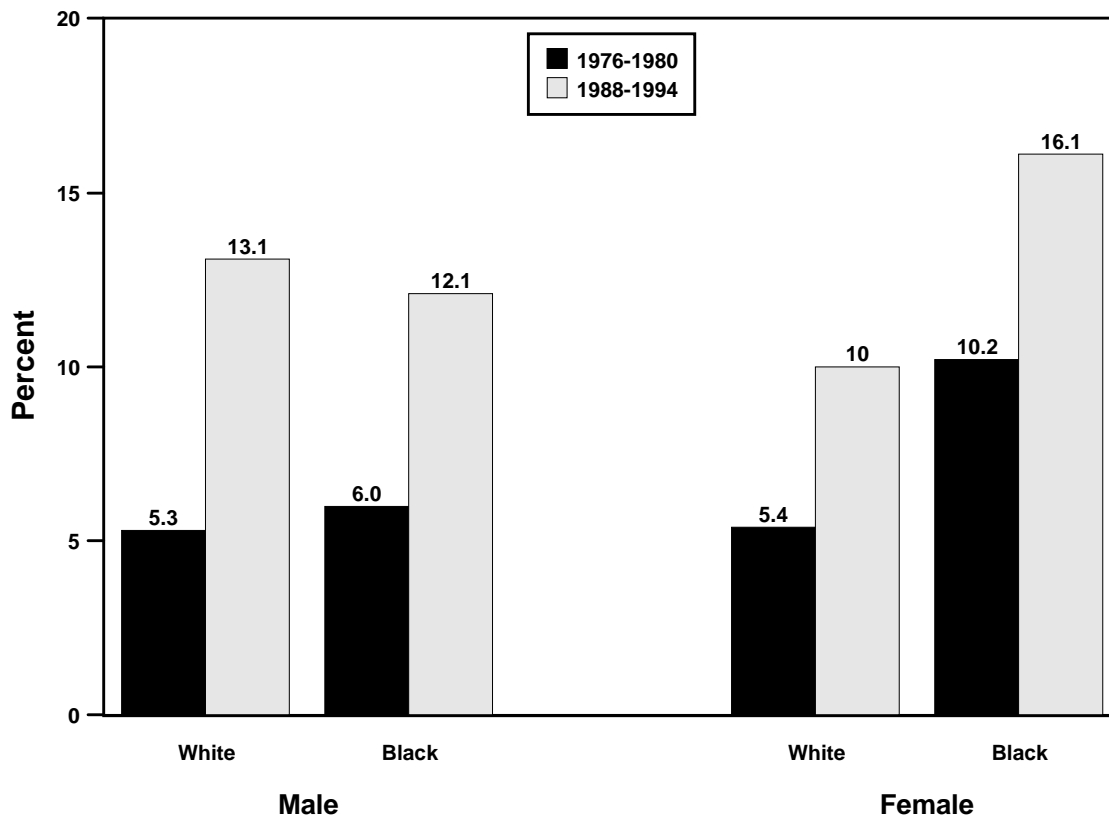
<sup>b</sup>Totals for male and female children and adolescents include data for race groups not shown separately.

Sources: National Center for Health Statistics. 1998. *Health, United States, 1998 With Socioeconomic Status and Health Chartbook*. Hyattsville, Md.: (Table 71). 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 six-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. 1998. *Health, United States, 1998 With Socioeconomic Status and Health Chartbook*. Hyattsville, Md.: (Table 71). 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>31</sup> They can result in serious injury or, in extreme cases, death.

According to data from the most comprehensive annual data collection efforts undertaken to date, there were 965,623 child victims of maltreatment in 1997 as measured by the estimated total number of incidents<sup>32</sup> that were substantiated or indicated<sup>33</sup> by child welfare authorities (see Table HC 2.7). Of those cases, 25 percent were classified as physical abuse, 12 percent as sexual abuse, 55 percent as neglect, 2 percent as medical neglect, 6 percent as emotional maltreatment, and 12 percent as “other” or “unknown” types of maltreatment.<sup>34</sup>

Between 1990 and 1994, the total estimated number of victims increased by 20 percent from 860,576 to 1,029,118 children. However, between 1994 and 1997, the total estimated number of victims fell by 6 percent to 965,623 children.

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>35</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, who account for about 15 percent of the child population, constituted 27 percent of all child abuse and neglect victims in 1996. Whites accounted for 53 percent of all victims and Hispanics 11 percent of all victims (see Table HC 2.7).

**Differences by Age.** No age group accounts for an obviously disproportionate share of abuse and neglect victims. In 1997, infants under age 1 accounted for 7 percent of all victims; children ages 1 to 5 accounted for 31 percent; children ages 6 to 12 accounted for 40 percent; and children ages 13 to 17 accounted for 19 percent (see Table HC 2.7).

<sup>31</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>32</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>33</sup> Some states have a classification of “indicated”, which means 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>34</sup> These percentages add up to over 100 because individual cases may include more than one type of maltreatment.

<sup>35</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.

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> 1990-1997**

	1990	1991	1992	1993	1994	1995	1996	1997
<b>Total</b>								
<b>Number<sup>d</sup></b>	860,576	911,689	994,655	1,026,331	1,029,118	1,005,511	1,011,973	965,623
<b>Type of maltreatment (% of total)</b>								
Physical Abuse	27	26	23	24	24	24	24	25
Neglect	49	46	50	49	52	52	52	55
Medical Neglect <sup>e</sup>	—	2	3	2	2	3	3	2
Sexual Abuse	17	16	14	14	14	13	12	12
Psychological or Emotional Abuse or Neglect	7	6	5	5	5	4	6	6
Other and Unknown Maltreatment	9	9	20	15	16	16	18	12
<b>Race/ethnicity<sup>b</sup> (% of total)</b>								
White	54	54	52	53	55	55	53	—
Black	25	26	26	26	28	28	27	—
Hispanic	9	9	9	9	10	10	11	—
<b>Gender (% of total)</b>								
Male	45	44	44	44	47	47	48	47
Female	51	51	50	51	52	53	52	52
<b>Age (% of total)</b>								
Under age 1	7	7	7	7	7	7	7	7
Ages 1-5	30	31	31	31	33	33	32	31
Ages 6-12	36	37	37	37	38	39	40	40
Ages 13-17	19	19	19	20	20	20	20	19
Ages 18+/unknown	8	6	6	5	3	2	2	3

<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 exclude persons of Hispanic origin except for the portion of the estimate generated by states that do not report Hispanic origin.

<sup>c</sup>Some states have included persons ages 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>These totals represent the estimated number of victims for all 50 states and the District of Columbia. These are adjusted estimates based on all reporting states, which has varied in number between 41 and 49 over this time period. The previous edition of this publication reported the numbers from reporting states only.

<sup>e</sup>Medical neglect was not reported in 1990.

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.

Note: Subgroup percentages may be based on data from fewer states than the number of states contributing to the total because all states do not provide demographic information.

Sources: Unpublished estimates from NCANDS Technical Assistance Team, Walter R. McDonald and Associates, under contract to the Administration for Children and Families, U.S. Department of Health and Human Services.

## HC 2.8

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

Suicide is a major cause of death among 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>36</sup>

In 1997, 21 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, 8 percent 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>37</sup> In 1997, black youth report somewhat lower rates of considering suicide in comparison with their Hispanic peers. Twenty percent of whites report having considered suicide in the previous year. Rates of reported attempted suicide range from 6 percent for whites to 11 percent for Hispanics.

**Differences by Gender.** In 1997, female youth were more likely than male youth to report having thought seriously about suicide (27 percent versus 15 percent) and having attempted suicide (12 percent versus 5 percent) during the previous year (see Figure HC 2.8). However, the rate of actual suicides, particularly among teens ages 15 to 19, is considerably higher for males than for females, as discussed in Section HC 1.5.

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<sup>36</sup> Alcohol, Drug Abuse, and Mental Health Administration. 1990. *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.

<sup>37</sup> Estimates for white and black youth exclude Hispanics of those races.

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, 1990-1997

	1990	1991	1993	1995	1997
<b>Total</b>	27	28	24	24	21
Male	21	20	19	18	15
Female	34	36	30	30	27
<b>Grade</b>					
9	30	28	24	26	22
10	26	28	25	25	22
11	29	31	25	26	21
12	23	25	23	20	18
<b>Race and Hispanic origin<sup>a</sup></b>					
White, non-Hispanic	28	29	24	25	20
Black, non-Hispanic	20	20	20	20	16
Hispanic	30	26	26	25	23

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

Sources: Centers for Disease Control and Prevention. "1990-1991 Youth Risk Behavior Surveillance System." In *Chronic Disease and Health Promotion Reporting from the MMWR*, Table 1, p. 9; Table 1, p. 66; Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Douglas, K.A., Collins, M.E., Williams, B.I., Ross, J.G., Kolbe, L.J., and State and Local YRBSS (Youth Risk Behavior Surveillance System) Coordinators. "Youth Risk Behavior Surveillance—United States, 1993." In *CDC Surveillance Summaries*, March 24, 1995. *Morbidity and Mortality Weekly Report* 44 (SS-1): Table 10, p. 32; 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* 45 (SS-4): Table 10, p. 41; Kann, L., Kinchen, S.A., Williams, B.I., Ross, J.G., Lowry, R., Hill, C.V., Grunbaum, J.A., Blumson, P.S., Collins, J.L., Kolbe, L.J., and State and Local YRBSS Coordinators. "Youth Risk Behavior Surveillance—United States, 1997." In *CDC Surveillance Summaries*, August 14, 1998. *Morbidity and Mortality Weekly Report* 47 (SS-3): Table 10, p. 47.

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, 1990-1997

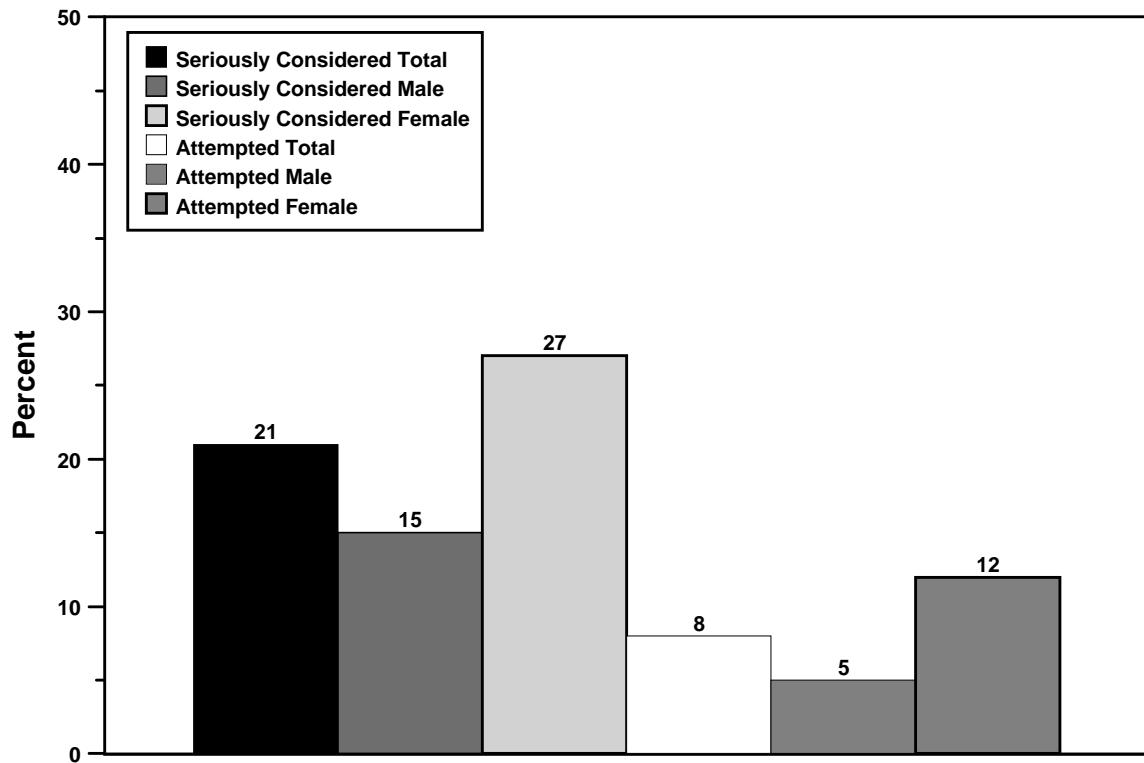
	1990	1991	1993	1995	1997
<b>Total</b>	8	7	9	9	8
Male	6	4	5	6	5
Female	10	11	13	12	12
<b>Grade</b>					
9	9	9	10	11	11
10	9	8	9	10	9
11	8	6	8	9	8
12	7	6	7	6	5
<b>Race and Hispanic origin<sup>a</sup></b>					
White, non-Hispanic	8	7	8	8	6
Black, non-Hispanic	7	7	8	10	7
Hispanic	12	8	14	13	11

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

Sources: Centers for Disease Control and Prevention. "1990-1991 Youth Risk Behavior Surveillance System." In *Chronic Disease and Health Promotion Reporting from the MMWR*, Table 1, p. 9; Table 1, p. 66; Kann, L., Warren, C.W., Harris, W.A., Collins, J.L., Douglas, K.A., Collins, M.E., Williams, B.I., Ross, J.G., Kolbe, L.J., and State and Local YRBSS (Youth Risk Behavior Surveillance System) Coordinators. "Youth Risk Behavior Surveillance—United States, 1993." In *CDC Surveillance Summaries*, March 24, 1995. *Morbidity and Mortality Weekly Report* 44 (SS-1): Table 10, p. 32; 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* 45 (SS-4): Table 10, p. 41; Kann, L., Kinchen, S.A., Williams, B.I., Ross, J.G., Lowry, R., Hill, C.V., Grunbaum, J.A., Blumson, P.S., Collins, J.L., Kolbe, L.J., and State and Local YRBSS Coordinators. "Youth Risk Behavior Surveillance—United States, 1997." In *CDC Surveillance Summaries*, August 14, 1998. *Morbidity and Mortality Weekly Report* 47 (SS-3): Table 10, p. 47.

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: 1997



Sources: Centers for Disease Control and Prevention. Kann, L., Kinchen, S.A., Williams, B.I., Ross, J.G., Lowry, R., Hill, C.V., Grunbaum, J.A., Blumson, P.S., Collins, J.L., Kolbe, L.J., and State and Local YRBSS Coordinators. "Youth Risk Behavior Surveillance—United States, 1997." In *CDC Surveillance Summaries*, August 14, 1998, *Morbidity and Mortality Weekly Report* 47 (SS-3): Table 10, p. 47.



## HC 2.9

**ACTIVITY LIMITATIONS**

Activity limitations refer to long-term reductions in activities resulting from a chronic disease or impairment.<sup>38</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 1996, 6.1 percent of all children under age 18 had a chronic condition that limited their activity (see Table HC 2.9.A), while 4.4 percent were limited in a major activity due to a chronic condition (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 1996, 2.6 percent of children under age 5 had an activity limitation due to a chronic condition, compared with 7.5 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 under 18 with an activity limitation due to a chronic condition. In 1996, 7.4 percent of males, compared with 4.7 percent of females, had activity limitations that were caused by a chronic condition (see Table HC 2.9.A). Looking only at limitations in *major activities* in 1996, 5.5 percent of males under age 18 had such limitations, compared with 3.2 percent of females (see Figure HC 2.9.B).

**Differences by Race and Hispanic Origin.**<sup>39</sup> In 1996, 8.4 percent of black children under age 18 had any activity limitation, compared with 5.7 percent of white children and 6.3 percent of Hispanic children. Black children also suffered from restrictions in their major activities more frequently than white children (see Figure HC 2.9.B).

**Differences by Income.** Children under age 18 who were below the poverty line were 83 percent more likely to have an activity limitation than non-poor children in 1996 (see Figure HC 2.9 A). Even for children under age 5, who in general have fewer limitations than older children, the disparity between the poor and non-poor incidence of activity limitation is striking: 1.7 percent of non-poor children and 4.9 percent of poor children were limited in some activity. Children ages 5 to 17 in families with annual incomes under \$20,000 are almost twice as likely to be limited in their activities as children in families with annual incomes of \$20,000 or more (see Table HC 2.9.A).

<sup>38</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>39</sup> Estimates for white and black children exclude Hispanics of those races.

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**SEE TABLE FOLLOWING PAGES**

Table HC 2.9.A (Part 1)

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, poverty status, and race and Hispanic origin:<sup>c</sup> selected years 1984-1996

	1984	1990	1991	1992	1993	1994	1995	1996
<b>Under 18</b>								
<b>Total</b>	5.0	4.9	5.8	6.1	6.6	6.7	6.0	6.1
<b>Annual family income</b>								
Under \$20,000	—	—	—	—	—	—	—	9.7
\$20,000 or more	—	—	—	—	—	—	—	5.0
<b>Gender</b>								
Male	5.9	5.6	6.8	7.1	7.8	7.9	7.4	7.4
Female	4.0	4.2	4.7	5.0	5.3	5.6	4.6	4.7
<b>Race and Hispanic origin<sup>c</sup></b>								
White, non-Hispanic	4.9	5.0	5.8	6.0	6.7	6.6	6.0	5.7
Black, non-Hispanic	5.6	5.5	6.7	7.5	7.7	8.9	7.3	8.4
Hispanic	4.7	4.1	5.5	5.3	5.6	5.7	5.8	6.3
<b>Poverty status</b>								
Below poverty	7.1	6.7	8.8	9.2	9.5	9.7	9.2	9.7
At or above poverty	4.4	4.6	5.1	5.3	5.9	6.0	5.4	5.3
<b>Under 5</b>								
<b>Total</b>	2.5	2.2	2.4	2.8	2.8	3.1	2.7	2.6
<b>Annual family income</b>								
Under \$20,000	—	—	—	—	—	—	—	4.2
\$20,000 or more	—	—	—	—	—	—	—	1.7
<b>Gender</b>								
Male	2.7	2.6	2.7	3.3	3.1	3.4	3.3	3.3
Female	2.3	1.7	2.1	2.2	2.5	2.7	2.0	1.7
<b>Race and Hispanic origin<sup>c</sup></b>								
White, non-Hispanic	2.3	2.1	2.4	2.5	2.4	2.7	2.7	1.8
Black, non-Hispanic	3.3	2.9	3.2	4.2	4.7	5.0	3.5	4.8
Hispanic	2.5	2.0	1.8	2.5	2.7	3.1	2.5	3.5
<b>Poverty status</b>								
Below poverty	4.0	3.0	4.3	4.5	4.3	5.2	3.9	4.9
At or above poverty	2.0	2.0	2.0	2.3	2.4	2.5	2.4	1.7

<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.

Sources: Data from the National Health Interview Survey, National Center for Health Statistics (provided by the Centers for Disease Control and Prevention and as published in *America's Children: Key National Indicators of Well-Being, 1998*, Federal Interagency Forum on Child and Family Statistics, Table HEALTH2, available online at <http://childstats.gov/ac1998/xhealth2.htm>); Benson, V., and Marono, M.A. 1995. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics 10* (199). National Center for Health Statistics, 1995. Also previous issues of this report [Series 10, Nos. 181, 184, 189, and 193].

Table HC 2.9.A (Part 2)

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, poverty status, and race and Hispanic origin:<sup>c</sup> selected years 1984-1996

	1984	1990	1991	1992	1993	1994	1995	1996
<b>Ages 5-17</b>								
<b>Total</b>	6.1	6.1	7.2	7.5	8.1	8.2	7.4	7.5
<b>Annual family income</b>								
Under \$20,000	—	—	—	—	—	—	—	11.9
\$20,000 or more	—	—	—	—	—	—	—	6.1
<b>Gender</b>								
Male	7.3	6.9	8.5	8.7	9.8	9.7	9.0	9.0
Female	4.8	5.2	5.9	6.2	6.4	6.7	5.6	5.9
<b>Race and Hispanic origin<sup>c</sup></b>								
White, non-Hispanic	6.0	6.2	7.1	7.4	8.4	8.1	7.2	7.1
Black, non-Hispanic	6.7	6.7	8.2	9.0	9.0	10.6	8.9	9.8
Hispanic	5.8	5.1	7.2	6.7	7.1	7.0	7.5	7.7
<b>Poverty status</b>								
Below poverty	8.7	8.5	11.0	11.7	12.2	11.9	11.8	12.1
At or above poverty	5.5	5.6	6.4	6.6	7.2	7.4	6.5	6.6

<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.

Sources: Data from the National Health Interview Survey, National Center for Health Statistics (provided by the Centers for Disease Control and Prevention and as published in *America's Children: Key National Indicators of Well-Being, 1998*, Federal Interagency Forum on Child and Family Statistics, Table HEALTH2, available online at <http://childstats.gov/ac1998/xhealth2.htm>); Benson, V., and Marono, M.A. 1995. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics* 10 (199). National Center for Health Statistics, 1995. Also previous issues of this report [Series 10, Nos. 181, 184, 189, and 193].

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, 1983-1996

	1983	1985	1990	1991	1992	1993	1994	1995	1996
<b>Total</b>	3.5	3.7	3.6	4.2	4.4	4.6	4.9	4.3	4.4
<b>Gender</b>									
Male	4.2	4.4	4.2	5.0	5.2	5.6	6.0	5.5	5.5
Female	2.8	2.9	3.0	3.3	3.7	3.5	3.8	3.1	3.2
<b>Race</b>									
White	3.4	3.5	3.5	4.1	4.3	4.5	4.7	4.2	4.1
Black	4.5	4.6	4.2	5.2	6.0	5.7	6.7	5.5	6.2

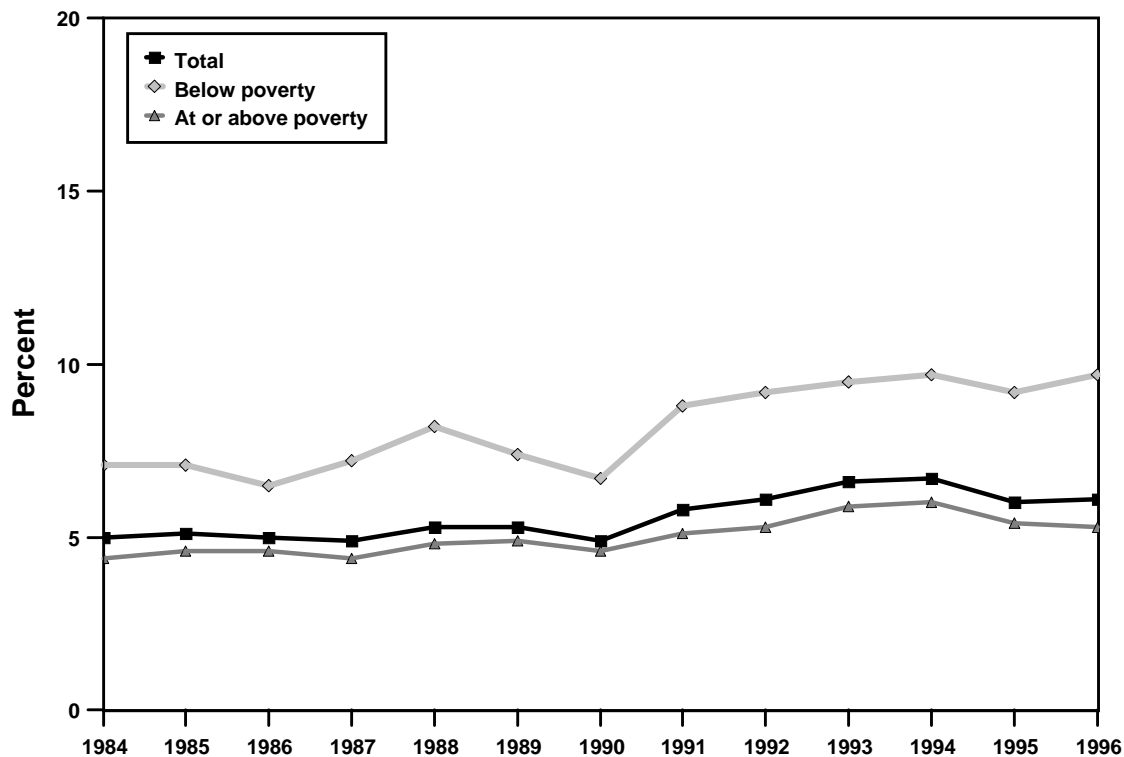
<sup>a</sup>Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for children are ordinary play for children under 5 years of age and attending school for those 5-17 years of age. A person is classified as having an activity limitation 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; Benson, V., and Marono, M.A. 1996. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics* 10 (199), Table 67. National Center for Health Statistics. Also previous issues of this report. [Series 10, Nos. 154, 163, 181, 184, 189, 190, and 193 (Table 67 in each)].

Figure 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 poverty status: 1984-1996



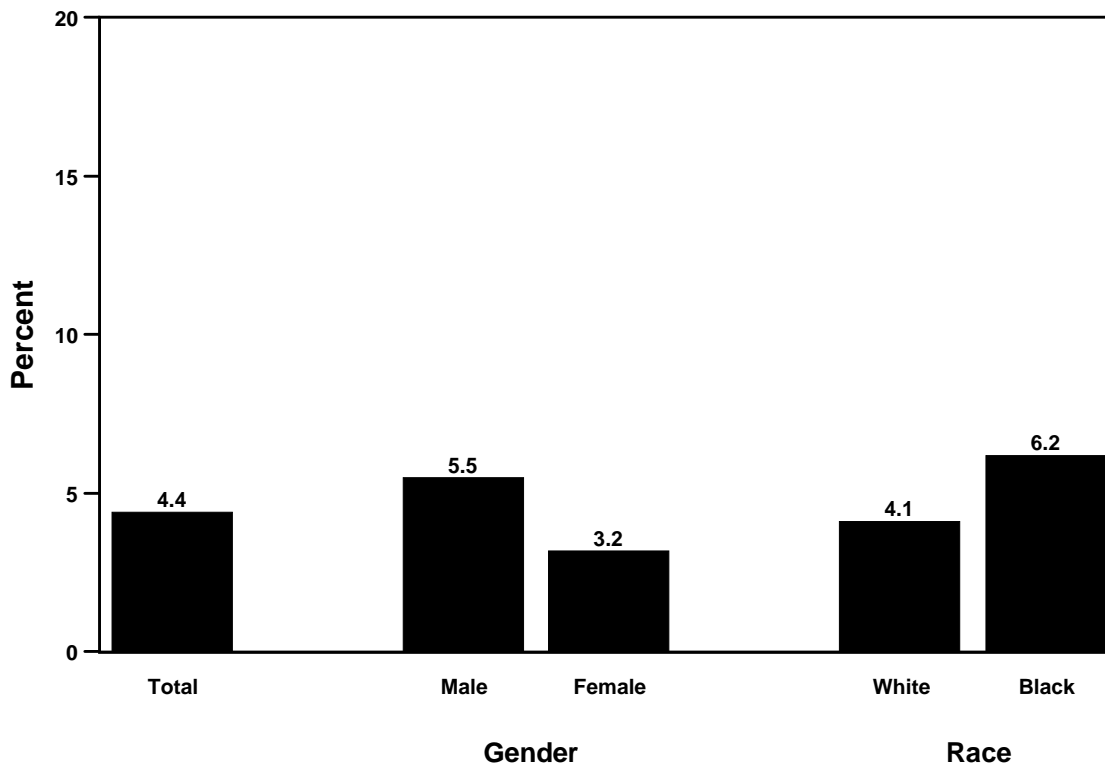
<sup>a</sup>Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for children are ordinary play for children under 5 years of age and attending school for those 5-17 years of age. A person is classified as having an activity limitation 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: Data from the National Health Interview Survey, National Center for Health Statistics (provided by the Centers for Disease Control and Prevention and as published in *America's Children: Key National Indicators of Well-Being, 1998*, Federal Interagency Forum on Child and Family Statistics, Table HEALTH2, available online at <http://childstats.gov/ac1998/xhealth2.htm>); Benson, V., and Marono, M.A. 1995. "Current Estimates from the National Health Interview Survey, 1995." *Vital Health Statistics* 10 (199). National Center for Health Statistics. Also previous issues of this report [Series 10, Nos. 181, 184, 189, and 193].

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 and by race: 1996



<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.

Source: Unpublished data from the National Health Interview Survey, National Center for Health Statistics.





## 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 considers BLLs at least as low as 10 micrograms per deciliter of blood as hazardous for children ages 1 to 5.<sup>40</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>41</sup> Other contributing factors have been the ban on leaded paint for residential use since 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>42</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).
- Low-income 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 (with family incomes between 130 and 350 percent of the poverty level) and 1 percent of children in high-income families (with family incomes above 350 percent of the poverty level) (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>43</sup> The prevalence of elevated blood lead levels is lower for children who live in housing built after 1973.<sup>44</sup> Nevertheless, the higher prevalence of elevated blood lead levels among non-Hispanic black children and children in families with low income can still be seen across the categories reflecting age of housing (see Tables HC 2.10.A and HC 2.10.B).

<sup>40</sup> Centers for Disease Control and Prevention. 1991. *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.

<sup>41</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>42</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>43</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>44</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 10 micrograms per deciliter, by age, race/ethnicity, poverty status, and age of housing:<sup>a</sup> selected years, 1976-1994<sup>b</sup>

	1976-1980	1988-1991	1991-1994
<b>All children ages 1-5<sup>c</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</b>			
White, non-Hispanic	85.0	5.5	2.3
Black, non-Hispanic	97.7	20.6	11.2
<b>Poverty status</b>			
Below poverty	94.2	16.7	8.9
At or above poverty	86.9	5.3	2.1
<b>Year housing built</b>			
Before 1973	—	11.9	6.0
After 1973	—	4.9	1.6

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

<sup>b</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>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), Tables 1 and 2; 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, Table 2; 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, Tables 3 and 4. Also unpublished tabulations based on NHANES III provided by the Centers for Disease Control, and data as published in *America's Children: Key National Indicators of Well-Being, 1998*. Federal Interagency Forum on Child and Family Statistics, Washington, D.C.: U.S. Government Printing Office. Table SPECIAL1.

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 10 micrograms per deciliter, by year housing built, race and ethnicity,<sup>a</sup> family income,<sup>b</sup> and urban status:<sup>c</sup> selected years, 1991-1994 (combined)

	Total <sup>d</sup>	Year housing built		
		Before 1946	During 1946-1973	After 1973
<b>Total<sup>d</sup></b>	4.4	8.6	4.6	1.6
<b>Race/ethnicity</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</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</b>				
Population 1 million or 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>Estimates for whites and blacks exclude Hispanics of those races.

<sup>b</sup>Low income was defined as total family income for the year of the interview below 130 percent of the federal poverty threshold, middle as between 130 and 350 percent, and high as over 350 percent. Persons with data missing for income were not included in the analysis of income.

<sup>c</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.

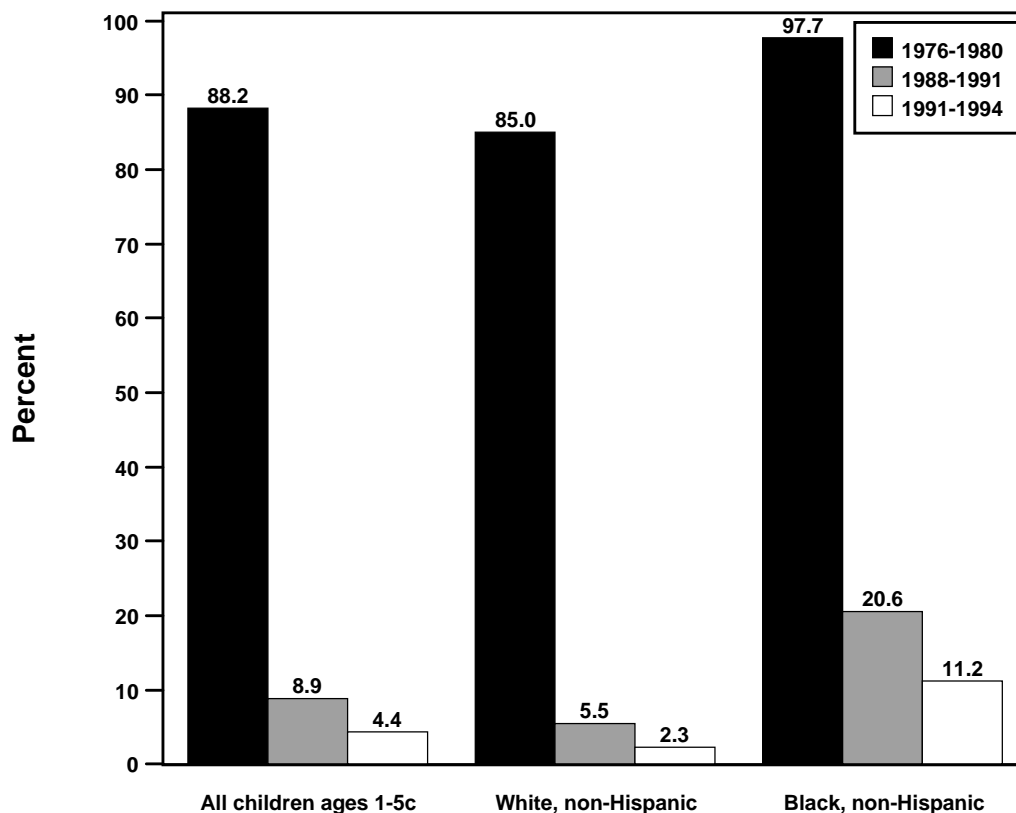
<sup>d</sup>Totals include children ages 1 through 5 of all race/ethnicity groups beyond those shown separately.

\*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), Table 2. 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 10 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), Tables 1 and 2; Pirkle, J.L., Brody, D.J., Gunter, E.W., Kramer, R.A., Paschal, D.C., Flegal, K.M., and Matte, T.D. 1994. Table 2 and page 288 in "The Decline in Blood Lead Levels in the United States: The National Health and Nutrition Examination Surveys (NHANES)." *JAMA* 272 (4): 284-291.

## HC 2.11

**SERIOUS VIOLENT VICTIMIZATION OF TEENS**

Serious violent crimes include aggravated assaults,<sup>45</sup> rape, and robbery (stealing by force or threat of violence). In order to keep track of the incidence of these and other crimes, the Bureau of Justice Statistics 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 have remained relatively constant from 1980 to 1994, ranging from 34.1 to 43.8 per thousand.<sup>46</sup> Between 1994 and 1997, the rate dropped from 41.3 to 27.1 per 1,000 (see Table HC 2.11).

**Differences by Gender.** Male youth are considerably more likely than female youth to be victims of violent crimes. In 1997, 33.1 per thousand males ages 12 through 17 were victims of violent crimes, compared with 20.8 per thousand females (see Figure HC 2.11).

**Differences by Race.** The rate of violent victimization of white teens ranged from 25.5 to 40.1 per thousand between 1980 and 1997, in comparison to 30.4 to 77.0 per thousand for black youth. Black youth have consistently been more likely than white youth to be victims of violent crimes. In 1997, 30.4 black youths per thousand were victims of violent crime, compared with 27.6 per thousand among white youth ages 12 through 17.

<sup>45</sup> Previous editions of this report have included simple assaults in the rates of violent victimization.

<sup>46</sup> The estimate of 34.1, for 1984, is not shown in Table HC 2.11 but does appear in Figure HC 2.11.

Table HC 2.11

**Serious 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, 1980-1997**

	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
<b>Age</b>										
12-17 years	37.6	34.3	43.2	40.7	38.8	43.8	41.3	28.3	30.3	27.1
12-14 years	33.4	28.1	41.2	37.8	37.6	38.0	34.5	26.7	24.9	23.5
15-17 years	41.4	40.3	45.2	43.6	40.1	49.9	48.5	30.0	35.8	30.7
<b>Race</b>										
White	34.1	34.4	37.0	40.1	35.2	40.0	38.0	25.5	27.7	27.6
Black	60.2	35.2	77.0	48.0	54.3	71.5	63.0	44.5	43.4	30.4
Other	21.7	28.8	37.3	25.0	48.7	17.6	27.5	23.7	31.2	9.7
<b>Gender</b>										
Male	54.8	49.8	60.5	60.7	49.8	53.9	51.5	39.0	40.4	33.1
Female	19.7	18.2	24.9	19.6	27.2	33.1	30.6	17.0	19.7	20.8

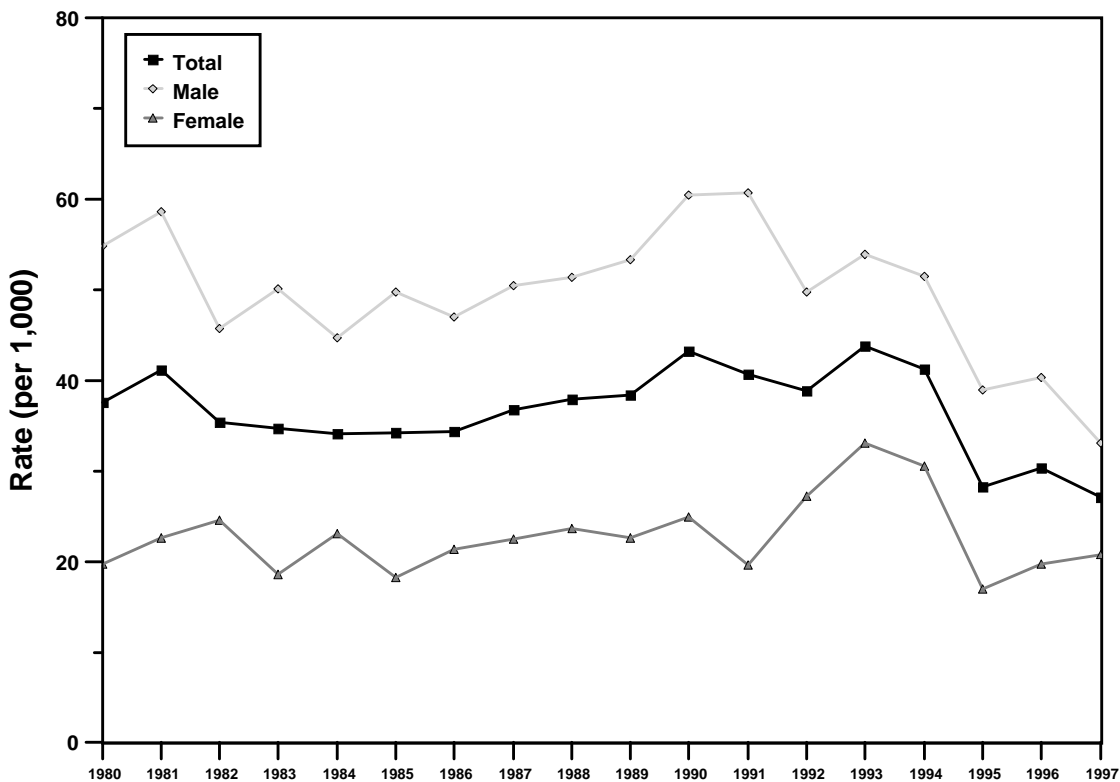
<sup>a</sup>Serious violent victimization is defined as being a victim of a violent crime, including aggravated assaults, rape, and robbery (stealing by force or threat of violence).

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: U.S. Bureau of Justice Statistics, National Crime Victimization Survey, 1980-1997 (as published in *America's Children: Key National Indicators of Well-Being, 1999*, Federal Interagency Forum on Child and Family Statistics, Table BEH4.A, available online at <http://childstats.gov/ac1999>).

Figure HC2.11

Serious violent victimization<sup>a</sup> of youth ages 12 through 17 in the United States (rates per 1,000), by gender: 1980-1997



<sup>a</sup>Serious violent victimization is defined as being a victim of a violent crime, including 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: U.S. Bureau of Justice Statistics, National Crime Victimization Survey, 1980-1997 (as published in *America's Children: Key National Indicators of Well-Being, 1999*, Federal Interagency Forum on Child and Family Statistics, Table BEH4.A, and unpublished tables).





## HC 2.12

**DENTAL CARIES**

“Dental caries” refers to 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>47</sup> Additionally, children who do not receive restorative treatment for existing dental caries may experience much pain and suffering and may frequently miss school, and the functioning of their teeth may be permanently harmed.<sup>48</sup>

**Differences by Race/Ethnicity.**<sup>49</sup> Mexican American children ages 2 through 5 had the highest prevalence of dental caries in their primary teeth (see Figure HC 2.12). During the period from 1988 to 1994, one-third of Mexican American children had dental caries, compared with 24.2 percent of non-Hispanic black children and 13.6 percent of non-Hispanic white children. Mexican American and non-Hispanic black children ages 6 through 14 were about twice as likely as non-Hispanic white children to have dental caries in their permanent teeth (see Figure HC 2.12).

**Differences by Poverty Status.** The prevalence of dental caries is disproportionately concentrated among children from low-income families.<sup>50</sup> Among children ages 2 to 5, 29.7 percent of poor children had caries in their primary teeth, compared to 14.4 percent of non-poor children. Among older children, 19.5 percent of poor children had caries in their permanent teeth, while 8.6 of non-poor children did (see Table HC 1.12). Additionally, poor children, who are less likely than other children to receive dental services, are at a higher risk of suffering from untreated dental caries.<sup>51</sup>

<sup>47</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>48</sup> Lewit, E.M., and Kerrebrock, N. 1998. “Child Indicators: Dental Health.” *The Future of Children* 8 (1): 133-142.

<sup>49</sup> Estimates for whites and blacks exclude Hispanics of those races.

<sup>50</sup> Vargas, C.M., Crall, J.J., and Schneider, D.A. 1998. “Sociodemographic Distribution of Pediatric Dental Caries: NHANES III, 1988-1994.” *Journal of the American Dental Association* 129: 1229-1238 (Tables 2 and 5).

<sup>51</sup> Lewit, E.M., and Kerrebrock, N. 1998. “Child Indicators: Dental Health.” *The Future of Children* 8 (1):133-142.

Table HC 2.12

Percentage of children ages 2 through 14 in the United States with untreated dental caries, by age, race/ethnicity, and poverty status:<sup>a</sup> 1988-1994

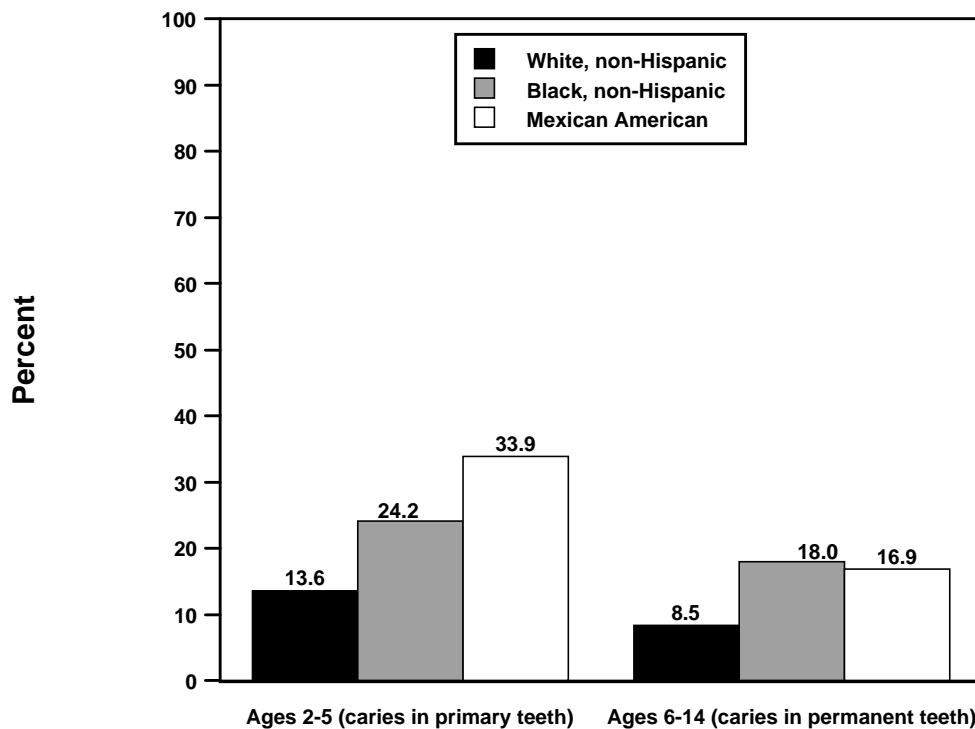
	Total	Above poverty level	At or below poverty level
<b>Ages 2-5 (caries in primary teeth)</b>			
All children	18.7	14.4	29.7
White, non-Hispanic	13.6	11.3	25.6
Black, non-Hispanic	24.2	21.8	26.4
Mexican American	33.9	30.2	37.7
<b>Ages 6-14 (caries in permanent teeth)</b>			
All children	11.3	8.6	19.5
White, non-Hispanic	8.5	7.2	15.8
Black, non-Hispanic	18.0	16.7	19.8
Mexican American	16.9	12.0	22.2

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

Sources: Unpublished estimates from the Third National Health and Nutrition Examination Survey (conducted between 1988 and 1994) calculated by the Division of Epidemiology, Office of Analysis, Epidemiology and Health Promotion, National Center for Health Statistics, Centers for Disease Control. Vargas, C.M., Crall, J.J., and Schneider, D.A. 1998. "Sociodemographic Distribution of Pediatric Dental Caries: NHANES III, 1988-1994." *Journal of the American Dental Association* 129: 1229-1238 (Tables 2 and 5).

Figure HC2.12

Percentage of children ages 2 through 14 in the United States with untreated dental caries, by age and race/ethnicity:<sup>a</sup> 1988-1994



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

Sources: Unpublished estimates from the Third National Health and Nutrition Examination Survey (conducted between 1988 and 1994) calculated by the Division of Epidemiology, Office of Analysis, Epidemiology and Health Promotion, National Center for Health Statistics, Centers for Disease Control. Vargas, C.M., Crall, J.J., and Schneider, D.A. 1998. "Sociodemographic Distribution of Pediatric Dental Caries: NHANES III, 1988-1994." *Journal of the American Dental Association* 129: 1229-1238 (Tables 2 and 5).



## HC 2.13

**CHILDREN AND ADOLESCENTS WITH HIV/AIDS**

**Pediatric AIDS.** Through December 1998, 8,461 cases of AIDS in children younger than 13 years old have been reported in the United States. Pediatric AIDS cases represent 1.2 percent of all cumulative reported cases (688,200) to the Centers for Disease Control and Prevention. The vast majority of these cases (91 percent) result from transmission before or during birth or what is known as perinatal transmission.<sup>52</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 reported 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>53</sup> In addition, in July 1995, the USPHS recommended universal HIV counseling and voluntary testing for all pregnant women in the United States.<sup>54</sup>

**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 AIDS rate for children under age 13 (not just perinatally acquired cases) by race and Hispanic origin in 1997.

**Adolescent HIV/AIDS.** The number of AIDS cases reported each year among adolescents ages 13 through 19 increased from 53 in 1986 to 180 in 1990 before declining to 153 in 1992. A change in definition increased the number of reported cases to 581 in 1993. Since then, the number has decreased to 374 in 1997 and 297 in 1998 (see Figure HC 2.13.C). Through December 1998, a total of 3,423 AIDS cases among adolescents have been reported (see Table HC 2.13.B).<sup>55</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>56</sup>

<sup>52</sup> Centers for Disease Control and Prevention. 1998. *HIV/AIDS Surveillance Report*, 10 (2), Table 5.

<sup>53</sup> "Trends in Perinatal Treatment." August 11, 1999. *Journal of the American Medical Association*.

<sup>54</sup> Centers for Disease Control and Prevention. 1995. "U.S. Public Health Service Recommendations for Human Immunodeficiency Virus Counseling and Voluntary Testing for Pregnant Women". *Morbidity and Mortality Weekly Report: Recommendations and Reports* 44 (RR-7); 1-15.

<sup>55</sup> Centers for Disease Control and Prevention. 1998. *HIV/AIDS Surveillance Report*, 10 (2), Table 7.

<sup>56</sup> Rosenberg, P.S., Biggar, R.J., and Goedert, J.J. 1994. "Declining Age at HIV Infection in the United States." *New England Journal of Medicine*, 330 (11): 789-90.

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>57</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 December 1998, cumulative reported cases of AIDS have reached more than 24,000 among adults ages 20 through 24 and more than 93,000 among adults ages 25 through 29.<sup>58</sup>

**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 83 percent of reported cases in 1997.<sup>59</sup>

**Differences by Gender.** The proportion of adolescents ages 13 through 19 with diagnosed cases of AIDS who are female has increased from approximately 20 percent of diagnosed cases in 1986 to half of diagnosed cases for that age group in 1997.<sup>60</sup>

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 1.

<sup>57</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).

<sup>58</sup> Centers for Disease Control and Prevention. 1998. *HIV/AIDS Surveillance Report*, 10 (2), Table 7.

<sup>59</sup> Division of HIV/AIDS Prevention, National Center of HIV, STD, and TB Prevention, Centers for Disease Control and Prevention. "AIDS Surveillance in Adolescents: L265 Slide Series." Available online at [http://www.cdc.gov/nchstp/hiv\\_aids/graphics/adolesnt.htm](http://www.cdc.gov/nchstp/hiv_aids/graphics/adolesnt.htm)

<sup>60</sup> Division of HIV/AIDS Prevention, National Center of HIV, STD, and TB Prevention, Centers for Disease Control and Prevention. "AIDS Surveillance in Adolescents: L265 Slide Series." Available online at [http://www.cdc.gov/nchstp/hiv\\_aids/graphics/adolesnt.htm](http://www.cdc.gov/nchstp/hiv_aids/graphics/adolesnt.htm)

Table HC 2.13.B

Estimated AIDS cases in adolescents ages 13 through 19 and 20 through 24 in the United States, by gender: 1998<sup>a</sup>

	1998	Cumulative Total <sup>b</sup>
<b>Ages 13-19</b>		
Total	297	3,423
Male	147	2,075
Female	150	1,348
<b>Ages 20-24</b>		
Total	1,501	24,437
Male	907	17,797
Female	594	6,640

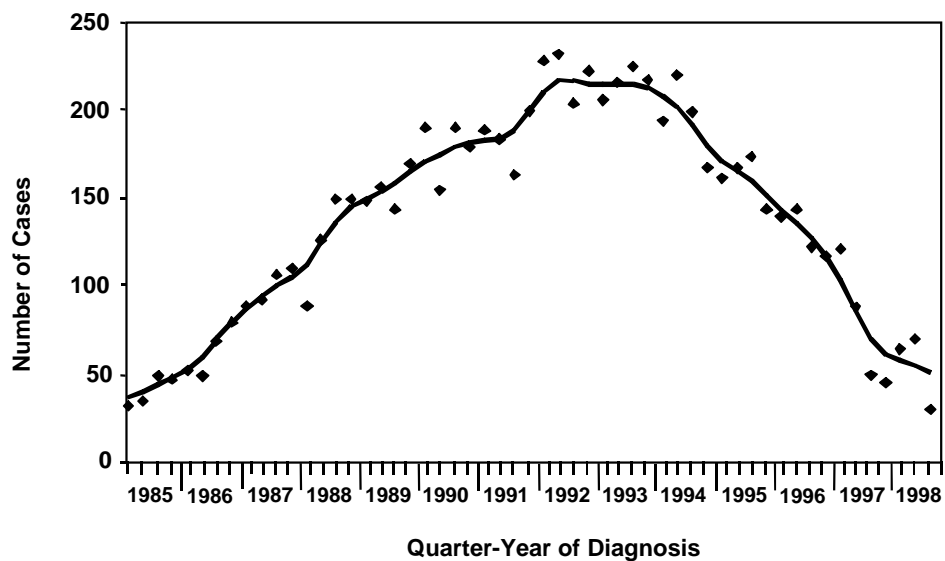
<sup>a</sup>These numbers do not represent actual cases of persons diagnosed with AIDS. Rather, these numbers are point estimates of persons diagnosed with AIDS, adjusted for reporting delays but not for incomplete reporting.

<sup>b</sup>Cumulative total is the number of cases of AIDS in the United States reported through December 1998.

Source: Centers for Disease Control and Prevention. 1998. *HIV/AIDS Surveillance Report* 10 (2), Table 13.

Figure HC.2.13.A

Reported perinatally acquired AIDS cases among children under age 13 in the United States: 1984-1998



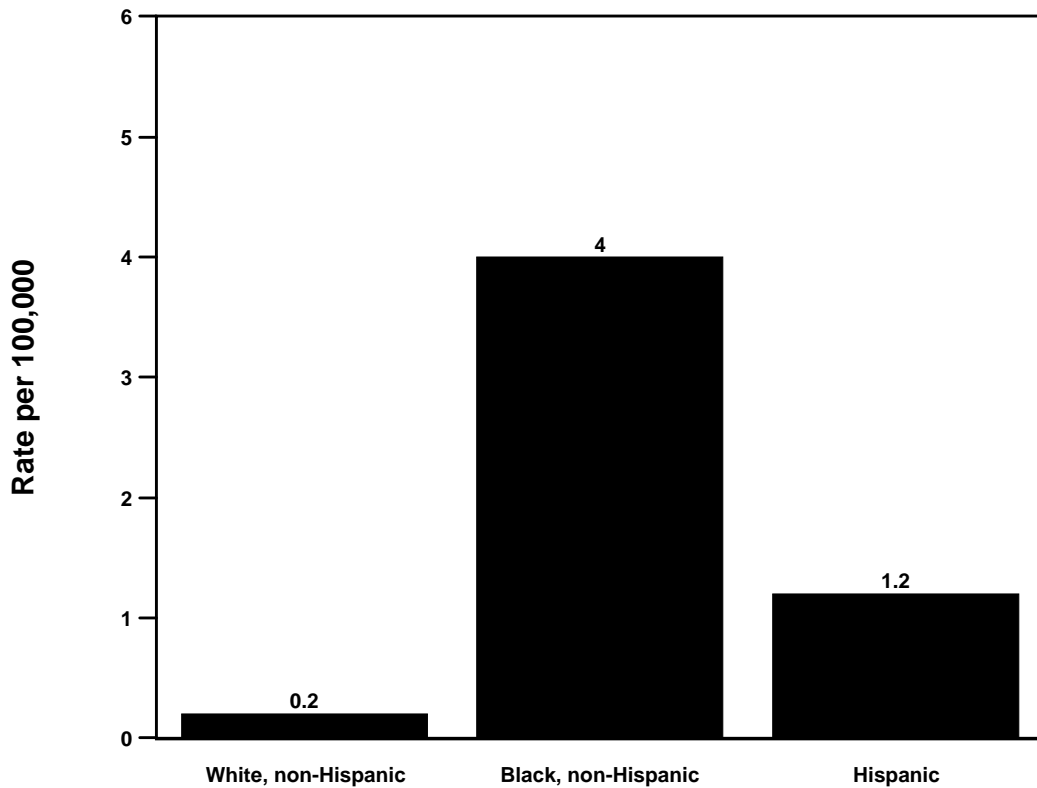
Note: Data are adjusted for reporting delays and unreported risk.

Source: Pediatric AIDS Surveillance, L262 slide series (through 1997). Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention. The slide series is available online at: [http://www.cdc.gov/nchstp/hiv\\_aids/graphics/pediatri.htm](http://www.cdc.gov/nchstp/hiv_aids/graphics/pediatri.htm).



Figure HC2.13.B

Reported AIDS rate (per 100,000) among children under age 13 in the United States, by race and Hispanic origin:<sup>a</sup> 1997

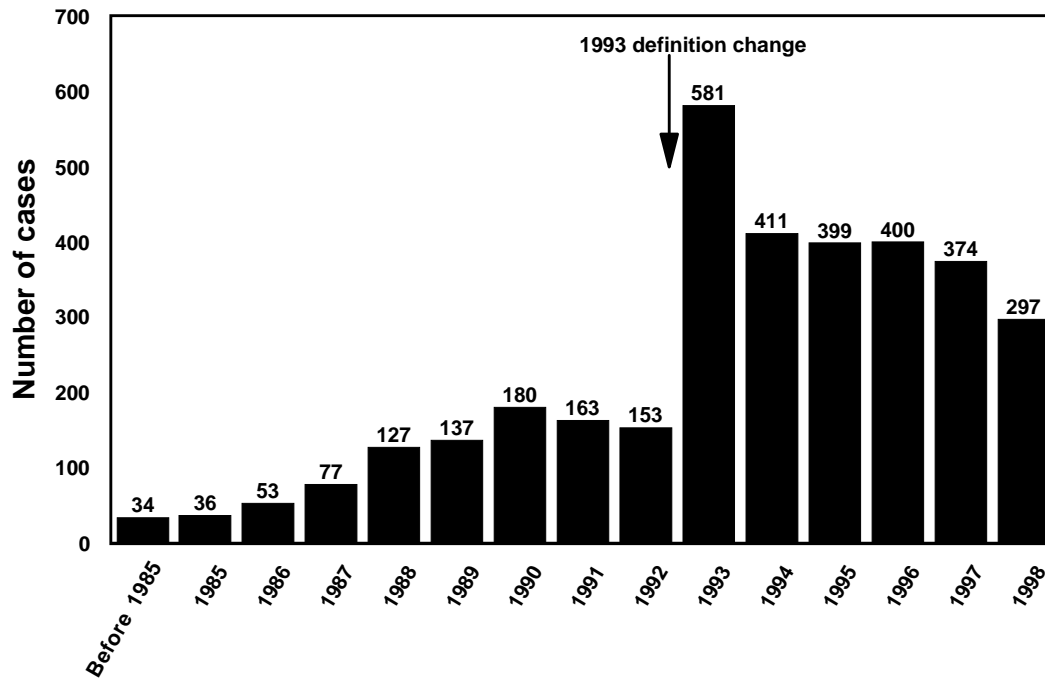


<sup>a</sup>Persons of Hispanic origin may be of any race.

Source: Pediatric AIDS Surveillance, L262 slide series (through 1997). Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention. The slide series is available online at: [http://www.cdc.gov/nchstp/hiv\\_aids/graphics/pediatri.htm](http://www.cdc.gov/nchstp/hiv_aids/graphics/pediatri.htm).

Figure HC.2.13.C

## AIDS cases in adolescents ages 13 through 19 in the United States: through 1998



Source: Adolescent AIDS Surveillance, L265 slide series (through 1998). Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention. The slide series is available online at: [http://www.cdc.gov/nchstp/hiv\\_aids/graphics/adolesnt.htm](http://www.cdc.gov/nchstp/hiv_aids/graphics/adolesnt.htm).

## 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>61</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 more than half, from 1,275.1 cases of gonorrhea per 100,000 youth in 1975 to 530.3 cases per 100,000 youth in 1997. 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 was 46.7 per 100,000 in 1975, peaked at 68.9 cases in 1990, and, by 1997, had declined to 30.5 cases per 100,000.

**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 1997, rates for females ages 15 through 19 were 718.0 per 100,000, versus 353.9 per 100,000 males of the same age.

**Differences in Gonorrhea Rates by Race and Hispanic Origin.**<sup>62</sup> Blacks have consistently had the highest reported rates of gonorrhea, frequently more than 10 times the rate of any other racial 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 2,827.9 per 100,000 in 1997). By contrast, in 1997 gonorrhea rates per 100,000 for 15- through 19-year-olds of other groups were 354.6 for American Indians/Alaska Natives, 231.3 for Hispanics, 118.5 for whites, and 70.3 for Asians (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 1997 for ages 15 through 19 was 4.2 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 1997, females ages 15 through 19 had a rate of 5.8 cases per 100,000, about double the male rate of 2.6 cases per 100,000.

**Differences in Syphilis Rates by Race and Hispanic Origin.**<sup>63</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 1997. Rates have been falling for all groups except American Indians/Alaska Natives whose reported syphilis rates have fluctuated since 1990 (see Table HC 2.14.B).

<sup>61</sup> Centers for Disease Control and Prevention, Division of STD Prevention. September 1997. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, p. 21.

<sup>62</sup> Estimates for whites and blacks exclude Hispanics of those races.

<sup>63</sup> Estimates for whites and blacks exclude Hispanics of those races.

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**SEE TABLE FOLLOWING PAGES**

## HEALTH CONDITIONS

Table HC 2.14.A (Part 1)

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, 1975-1997

	1975	1980	1985	1990	1991	1992	1993	1994 <sup>b</sup>	1995	1996	1997
<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	30.5
<b>Gender</b>											
Male	20.9	23.6	23.8	32.1	32.4	26.2	20.4	15.9	12.4	9.1	8.4
Female	73.6	74.8	72.9	107.5	98.3	91.0	78.0	82.3	71.6	57.9	53.8
<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	7.2
Black, non-Hispanic	—	—	—	386.8	364.7	322.4	281.6	276.4	236.7	178.8	162.2
Hispanic	—	—	—	15.3	16.5	17.7	20.5	19.0	19.3	16.0	15.2
Asian/Pacific Islander	—	—	—	4.5	9.9	6.2	4.6	6.3	5.6	3.2	3.6
American Indian/Alaska Native	—	—	—	22.7	28.9	19.1	37.2	29.5	19.0	21.5	23.8

<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); and 1997 (Idaho, 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. 1996. *STD Statistics* (No. 135), Table 7; data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. 1987. *STD Statistics* (No. 136), Table 3; data for 1990-1992 from Division of STD/HIV Prevention. December, 1994. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 9.B; data for 1993 from Division of STD Prevention. 1997. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 12.B; data for 1994-1997 from Division of STD Prevention, 1998. *Sexually Transmitted Disease Surveillance, 1997*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 12B.

Table HC 2.14.A (Part 2)

**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, 1975-1997**

	1975	1980	1985	1990	1991	1992	1993	1994 <sup>b</sup>	1995	1996	1997
<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	571.8	530.3
<b>Gender</b>											
Male	1,103.9	953.4	930.5	993.7	954.6	771.0	611.4	585.2	503.1	394.8	353.9
Female	1,446.4	1,424.6	1,455.1	1,241.6	1,112.2	973.6	851.6	890.2	847.4	758.2	718.0
<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	130.2	118.5
Black, non-Hispanic	—	—	—	6,316.2	5,963.9	4,973.1	4,256.2	4,235.8	3,813.9	3,065.4	2,827.9
Hispanic	—	—	—	268.7	273.1	281.0	264.0	240.3	270.1	249.4	231.3
Asian/Pacific Islander	—	—	—	70.0	91.5	76.7	81.7	84.9	81.0	67.3	70.3
American Indian/Alaska Native	—	—	—	414.6	366.0	319.0	360.4	355.0	296.2	350.5	354.6

<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); and 1997 (Idaho, 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. 1996. *STD Statistics* (No. 135), Table 7; data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. 1987. *STD Statistics* (No. 136), Table 3; data for 1990-1992 from Division of STD/HIV Prevention. December, 1994. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 9.B; data for 1993 from Division of STD Prevention. 1997. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 12.B; data for 1994-1997 from Division of STD Prevention, 1998. *Sexually Transmitted Disease Surveillance, 1997*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 12B.

Table HC 2.14.B (Part 1)

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, 1975-1997

	1975	1980	1985	1990	1991 <sup>b</sup>	1992	1993 <sup>b</sup>	1994	1995	1996 <sup>b</sup>	1997 <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	0.2
<b>Gender</b>											
Male	0.7	0.5	0.5	0.5	0.4	0.3	0.3	0.1	0.1	0.1	0.0
Female	1.5	1.3	1.4	3.2	2.5	2.3	1.6	1.2	1.0	0.5	0.4
<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	0.0
Black, non-Hispanic	—	—	—	10.6	8.6	8.1	5.9	3.8	3.5	1.6	1.3
Hispanic	—	—	—	1.1	0.4	0.4	0.1	0.1	0.1	0.1	0.1
Asian/Pacific Islander	—	—	—	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0
American Indian/Alaska Native	—	—	—	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

<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); and 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. 1986. *STD Statistics* (No. 135), Table 8; data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. 1987. *STD Statistics* (No. 136), Table 2; data for 1990-1992 from Division of STD/HIV Prevention. December, 1994. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 21.B; data for 1993 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 24.B; data for 1994-1997 from Division of STD Prevention. 1998. *Sexually Transmitted Disease Surveillance, 1997*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 24B.

Table HC 2.14.B (Part 2)

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, 1975-1997

	1975	1980	1985	1990	1991 <sup>b</sup>	1992	1993 <sup>b</sup>	1994	1995	1996 <sup>b</sup>	1997 <sup>b</sup>
<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	4.2
<b>Gender</b>											
Male	18.0	19.2	16.3	20.9	19.1	15.5	10.8	8.3	6.6	4.3	2.6
Female	17.5	15.1	17.7	39.2	37.0	29.9	23.5	17.3	13.8	8.6	5.8
<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	0.6
Black, non-Hispanic	—	—	—	174.6	164.8	136.7	103.5	76.5	60.9	36.9	23.4
Hispanic	—	—	—	15.2	12.5	8.5	5.6	2.8	2.4	1.9	2.2
Asian/Pacific Islander	—	—	—	1.7	1.9	1.4	1.0	0.8	0.5	0.8	0.5
American Indian/Alaska Native	—	—	—	2.8	7.0	2.7	0.6	2.4	4.2	1.2	0.6

<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); and 1996 (Rhode Island, because race/ethnicity was not reported for most cases).

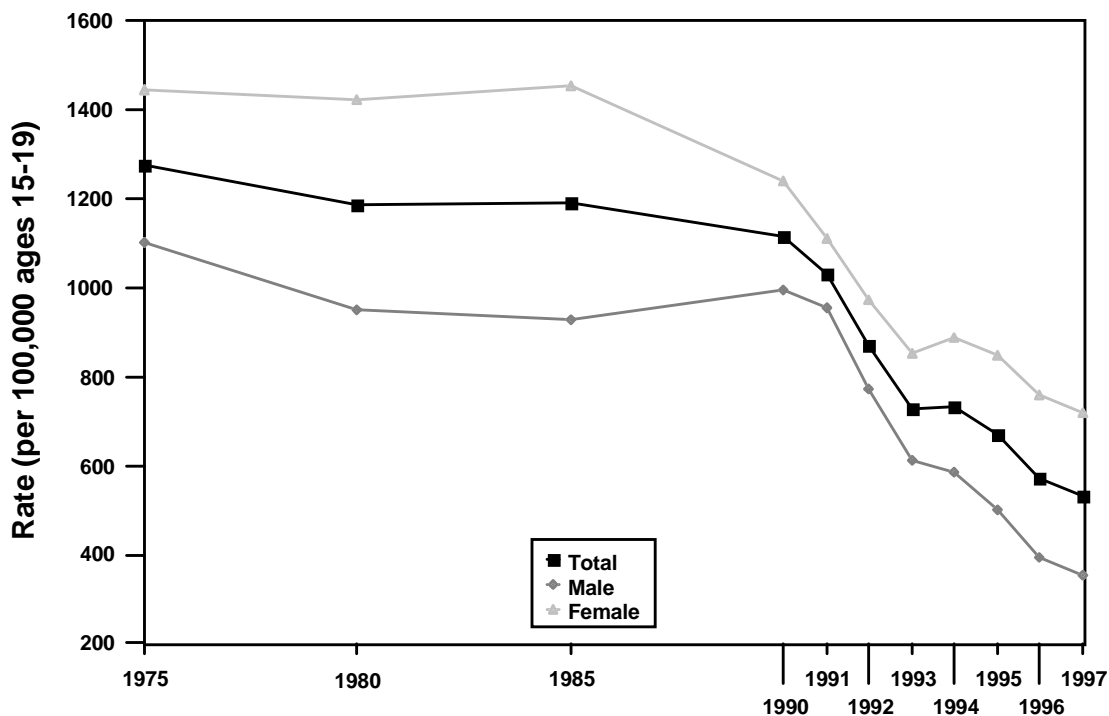
<sup>c</sup>Estimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Data for 1975 from Centers for Disease Control and Prevention, Division of STD Prevention. 1986. *STD Statistics* (No. 135), Table 8; data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. 1987. *STD Statistics* (No. 136), Table 2; data for 1990-1992 from Division of STD/HIV Prevention. December, 1994. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 21.B; data for 1993 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 24.B; data for 1994-1997 from Division of STD Prevention. 1998. *Sexually Transmitted Disease Surveillance, 1997*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 24B.



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, 1975-1997

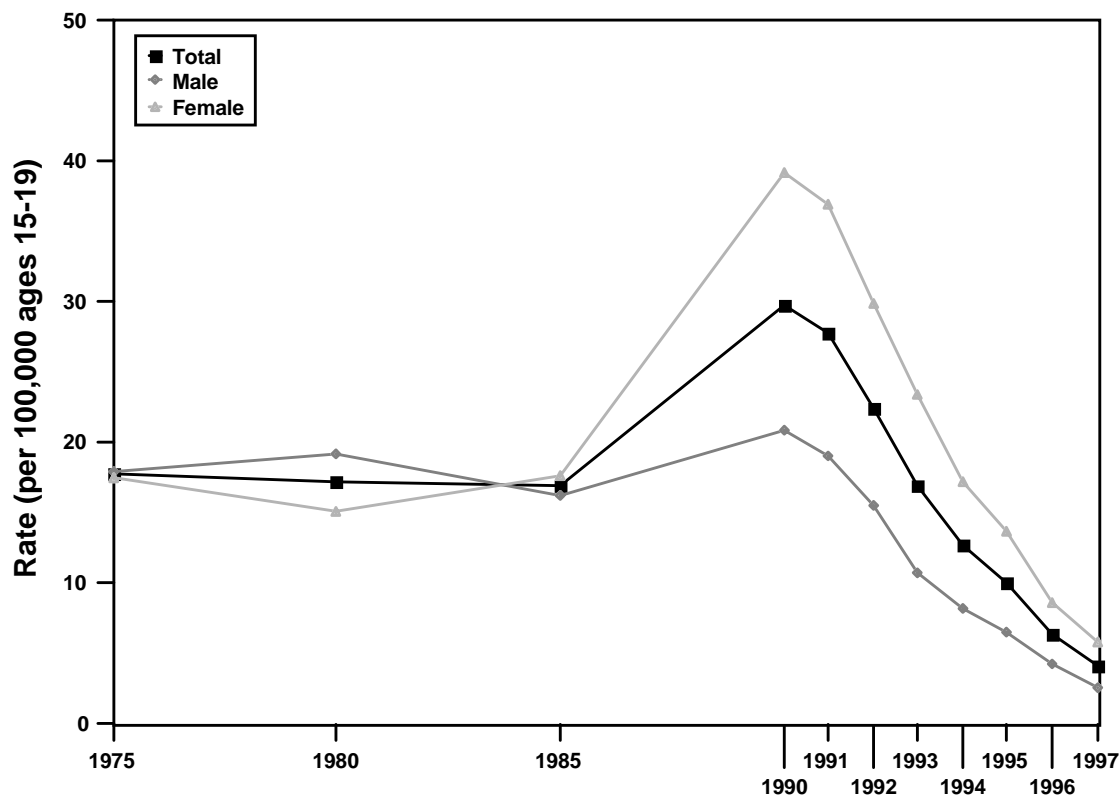


<sup>a</sup>Although most areas generally adhere to the case definitions for sexually transmitted diseases (STDs) found in Case Definitions for Public Health Surveillance (*Morbidity and Mortality Weekly Report* 1990; 39: 1-43), there are significant differences between individual areas in case definitions 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. 1996. *STD Statistics* (No. 135), Table 7; data for 1980 and 1985 from Centers for Disease Control and Prevention, Division of STD Prevention. 1987. *STD Statistics* (No. 136), Table 3; data for 1990-1992 from Division of STD/HIV Prevention. December 1994. *Sexually Transmitted Disease Surveillance, 1993*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 9.B; data for 1993 from Division of STD Prevention. 1997. *Sexually Transmitted Disease Surveillance, 1996*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 12.B; data for 1994-1997 from Division of STD Prevention. 1998. *Sexually Transmitted Disease Surveillance, 1997*. U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, Table 12B.

Figure HC.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, 1975-1997



<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).

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