

HC 3.1

HEALTH INSURANCE COVERAGE

Children who are covered by health insurance are considerably more likely to have a regular source of health care. Among children covered by private health insurance, 97 percent had a regular source of medical care in 1993; and of those covered by public health insurance, 94 percent had a regular source of medical care. In contrast, 79 percent of children with no health insurance had a regular source of medical care.⁶⁴ Regular care increases the continuity of care, which is important to the maintenance of good health.

Since 1987, the percentage of children who are covered by health insurance has remained stable, ranging from 85 to 87 percent (see Table HC 3.1.A). Rates of coverage vary little by age of child, though older children appear slightly less likely to be covered.

Differences by Race and Hispanic Origin.⁶⁵ Hispanic children are less likely to be covered than either white or black children. In 1997, 71 percent of Hispanic children were covered by health insurance, compared with 86 percent of white, 85 percent of Asian and Pacific Islander, and 81 percent of black children (see Table HC 3.1.A).

Differences by Poverty Status. Poor children have lower rates of health insurance coverage at 76 percent compared to 85 percent for all children in 1997 (see Tables HC 3.1.A and HC 3.1.B). They are also much less likely to be covered by private health insurance at 20 percent compared to 67 percent for all children.

Differences by Type of Health Care Coverage. Public health insurance coverage for children increased from 19 percent in 1987 to a high of 27 percent in 1993, before declining to 23 percent by 1997 (see Figure HC 3.1).⁶⁶ Younger children are considerably more likely to be covered by public health insurance. In 1997, 29 percent of children under age 6 were covered, compared with 19 percent of children ages 12 through 17 (see Table HC 3.1.A). Finally, a large proportion of black and Hispanic children rely on public health insurance for their medical coverage. In 1997, 40 percent of black and 34 percent of Hispanic children were covered by public health insurance, compared with 20 percent of white children. These percentages are down from highs of 50 and 41 percent, respectively, in 1993. The vast majority of children covered by public health insurance are covered by Medicaid (see Table 3.1.C).

⁶⁴ Simpson G., Bloom B., Cohen R.A., and Parsons P.E. 1997. "Access to Health Care. Part 1: Children." *Vital and Health Statistics* 10 (196). National Center for Health Statistics.

⁶⁵ Estimates for whites, blacks, and Asians and Pacific Islanders include Hispanics of those races. Hispanic children may be of any race.

⁶⁶ Public health insurance for children consists primarily of Medicaid but also includes Medicare and CHAMPUS.

Table HC 3.1.A

Percentage of children under age 18 in the United States who are covered by health insurance, by type of insurance, age, and race and Hispanic origin:^a 1987-1997

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
All health insurance											
All children	87	87	87	87	87	87	86	86	86	85	85
Under age 6	88	87	87	89	89	89	88	86	87	86	86
Ages 6-11	87	87	87	87	88	88	87	87	87	85	86
Ages 12-17	86	86	86	85	85	85	83	85	86	84	83
Race and Hispanic origin^a											
White	88	88	88	87	88	88	87	87	87	86	86
Black	83	84	84	85	85	86	84	83	85	81	81
Hispanic	72	71	70	72	73	75	74	72	73	71	71
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	85
Private health insurance											
All children	74	74	74	71	70	69	67	66	66	66	67
Age											
Under age 6	72	71	71	68	66	65	63	60	60	62	63
Ages 6-11	74	74	75	73	71	71	70	67	67	67	68
Ages 12-17	75	76	76	73	72	71	69	70	71	70	70
Race and Hispanic origin^a											
White	79	79	78	76	75	74	72	71	71	71	71
Black	49	50	52	49	45	46	46	43	44	45	48
Hispanic	48	48	48	45	43	42	42	38	38	40	42
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	70
Public health insurance^b											
All children	19	19	19	22	24	25	27	26	26	25	23
Age											
Under age 6	22	23	24	28	30	33	35	33	33	31	29
Ages 6-11	19	18	18	20	22	23	25	25	26	25	23
Ages 12-17	16	16	15	18	19	19	20	20	21	19	19
Race and Hispanic origin^a											
White	14	14	15	17	19	20	22	21	21	21	20
Black	42	42	41	45	48	49	50	48	49	45	40
Hispanic	28	27	27	32	37	38	41	38	39	35	34

^aEstimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

^bPublic health insurance for children consists primarily of Medicaid but also includes Medicare and CHAMPUS.

Sources: Housing and Household Economic Statistics Division, U.S. Bureau of the Census, analyses from the March Current Population Surveys. "Health Insurance Coverage: 1997," Table 7, available online at <http://www.census.gov/hhes/hlthins/hlthin97/hi97t7.html>, 11/4/98, and unpublished Table 1: Health Insurance Coverage Status—People by Age, Gender, and Race: 1997. Estimates for 1987-1996 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 ECON5.A.

Table HC 3.1.B

Percentage of poor children under age 18 in the United States who are covered by health insurance, by type of insurance, age, and race and Hispanic origin:^a 1997

	All health insurance	Private health insurance	Public health insurance
All poor children	76	20	62
Age			
Under age 6	80	19	—
Ages 6-11	78	21	—
Ages 12-17	69	21	—
Race and Hispanic origin^a			
White	75	22	—
Black	79	16	—
Hispanic	70	12	—
Asian	80	26	—

^aEstimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

^bPublic health insurance for children consists primarily of Medicaid but also includes Medicare and CHAMPUS.

Source: Housing and Household Economic Statistics Division, U.S. Bureau of the Census, analyses from the March Current Population Surveys. "Health Insurance Coverage: 1997," Table 7, available online at <http://www.census.gov/hhes/hlthins/hlthin97/hi97t7.html>, 11/4/98, and Table 6, available online at <http://www.census.gov/hhes/hlthins/hlthin97/hi97t6.html>, 11/4/98.

Table HC 3.1.C

Percentage of children under age 18 in the United States who are covered by Medicaid, by age and by race and Hispanic origin:^a 1987-1997

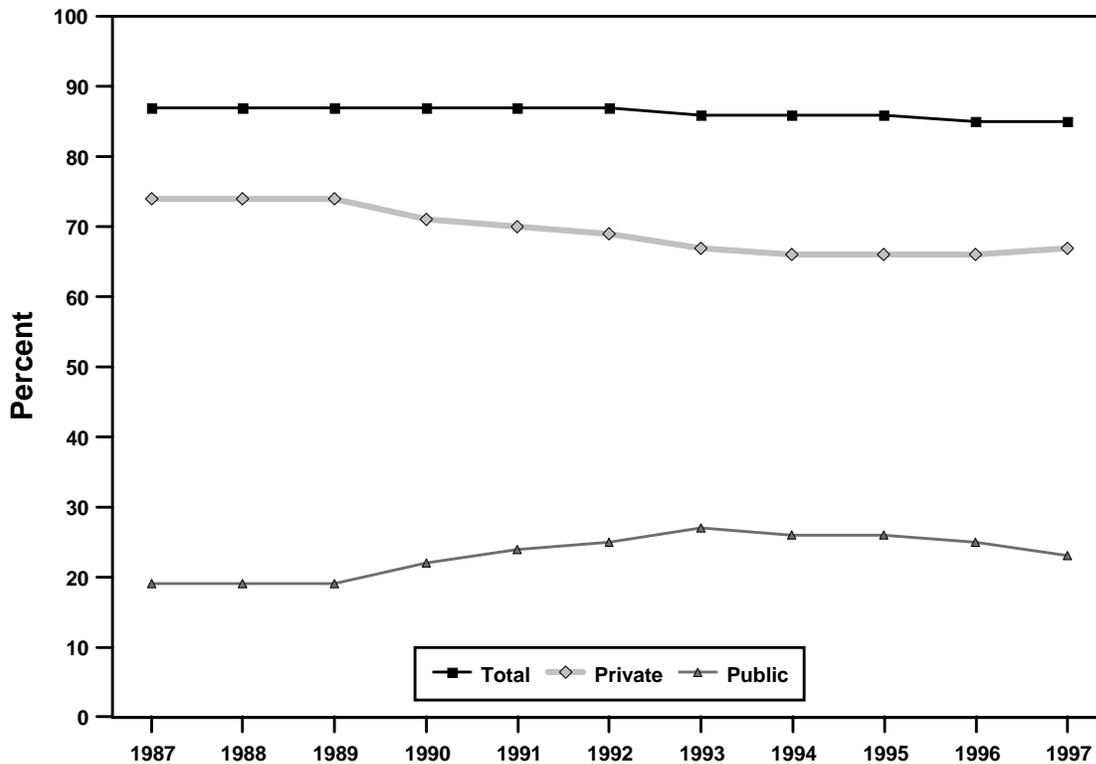
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
All children	15	16	16	19	20	22	24	23	23	22	21
Age											
Under age 6	18	19	20	24	27	30	32	30	30	28	26
Ages 6-11	15	15	15	17	19	20	22	22	23	22	20
Ages 12-17	12	12	11	14	15	15	17	16	17	16	16
Race and Hispanic origin^a											
White	11	11	11	14	16	17	19	18	18	18	17
Black	38	38	37	42	44	46	47	44	45	41	37
Hispanic	26	25	25	30	34	37	39	37	37	34	32
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	18
Poor children	—	—	—	—	—	—	—	—	—	—	61
Age											
Under age 6	—	—	—	—	—	—	—	—	—	—	67
Ages 6-11	—	—	—	—	—	—	—	—	—	—	62
Ages 12-17	—	—	—	—	—	—	—	—	—	—	52
Race and Hispanic origin^a											
White	—	—	—	—	—	—	—	—	—	—	57
Black	—	—	—	—	—	—	—	—	—	—	68
Hispanic	—	—	—	—	—	—	—	—	—	—	60
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	63

^aEstimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

Source: Housing and Household Economic Statistics Division, U.S. Bureau of the Census, analyses from the March Current Population Surveys. "Health Insurance Coverage: 1997," Table 7, available online at <http://www.census.gov/hhes/hlthins/hlthin97/hi97t7.html>, 11/4/98.

Figure HC 3.1

Percentage of children under age 18 in the United States who are covered by health insurance, by type of insurance:^a 1987-1997



^aPublic health insurance for children consists primarily of Medicaid but also includes Medicare and CHAMPUS.

Sources: Housing and Household Economic Statistics Division, U.S. Bureau of the Census, analyses from the March Current Population Surveys. "Health Insurance Coverage: 1997," Table 7, available online at <http://www.census.gov/hhes/hlthins/hlthin97/hi97t7.html>, 11/4/98. Estimates for 1987-1996 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 ECON5.A.

HC 3.2

EARLY PRENATAL CARE: RECEIPT OF PRENATAL CARE IN THE FIRST TRIMESTER

Early prenatal care (i.e., care in the first trimester of a pregnancy) allows women and their health care providers to identify and, when possible, treat or correct health problems and health-compromising behaviors that can be particularly damaging during the initial stages of fetal development. Increasing the percentage of women who receive prenatal care, and who do so early in their pregnancies, can improve birth outcomes and lower health care costs by reducing the likelihood of complications during pregnancy and childbirth.⁶⁷

The percentage of women receiving prenatal care in the first trimester has increased from 68.0 percent in 1970 to 82.5 percent in 1997 (see Table HC 3.2).⁶⁸ Following a decade of essentially no change, the proportion of women receiving early prenatal care has improved incrementally throughout the 1990s.

Differences by Race and Ethnicity. The percentage of women receiving prenatal care during the first three months of pregnancy has increased over the past two decades for women of all races and those of Hispanic origin. While the gains have been greatest for black, American Indian/Alaska Native, and Hispanic women, white women and Asian/Pacific Islander women are most likely to receive prenatal care in their first trimester (see Table HC 3.2 and Figure HC 3.2).

- American Indian/Alaska Native women have consistently had the lowest percentage of women receiving early prenatal care; however, this percentage has increased gradually, from 38.2 percent in 1970 to 68.1 percent by 1997.
- The percentage of black women receiving prenatal care in the first trimester increased from 44.2 percent in 1970 to 62.4 percent in 1980. Rates declined slightly during the 1980s but continued to increase in subsequent years, reaching 72.3 percent by 1997.
- The percentage of Hispanic women who receive early prenatal care has increased from 60.2 percent in 1980 to 73.7 percent by 1997. Among Hispanics, there are important sub-group disparities. In 1997, 90.4 percent of Cuban women received early prenatal care, compared with 72.1 percent of Mexican American women.
- Since 1980, there has been a gradual increase of nearly 7 percentage points in early prenatal care receipt among Asian/Pacific Islander women—from 73.7 percent in 1980 to 82.1 percent in 1997. Chinese, Japanese, and Filipino women tend to have higher rates of prenatal care among all Asian women, compared with Hawaiian and other Asian women.
- The percentage of white women receiving early prenatal care increased from 72.3 percent to 79.2 percent between 1970 and 1980, was stable through the 1980s, then increased during the 1990s to 84.7 percent by 1997.

Differences by Age. Older women are more likely to receive early prenatal care than are younger women. Although there have been improvements in the receipt of early prenatal care by teenagers, this age group is consistently the least likely to receive prenatal care in the first trimester of pregnancy (see Table HC 3.2).

- Receipt of early prenatal care among women under age 15 improved considerably between 1975 and 1997, increasing from 30.9 percent to 47.1 percent.
- The percentage of women ages 35 and over who received early prenatal care also improved during this time period, increasing from 68.4 percent in 1975 to 87.7 percent by 1997.
- More than 80 percent of women ages 25 and older received early prenatal care throughout the 1990s.

⁶⁷ U.S. Public Health Service. 1989. "Caring for Our Future: The Content of Prenatal Care." Washington, D.C.: U.S. Department of Health and Human Services.

⁶⁸ These data include only those women who gave birth, not all women who were pregnant.

Table HC 3.2

Percentage of women^a in the United States receiving prenatal care in the first trimester, by race/ethnicity of mother and by age: selected years, 1970-1997

	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Total	68.0	72.4	76.3	76.2	75.8	76.2	77.7	78.9	80.2	81.3	81.9	82.5
Race/ethnicity												
White ^b	72.3	75.8	79.2	79.3	79.2	79.5	80.8	81.8	82.8	83.6	84.0	84.7
Black ^b	44.2	55.5	62.4	61.5	60.6	61.9	63.9	66.0	68.3	70.4	71.4	72.3
American Indian/ Alaska Native ^b	38.2	45.4	55.8	57.5	57.9	59.9	62.1	63.4	65.2	66.7	67.7	68.1
Asian/Pacific Islander ^b	67.3	73.3	73.7	74.1	75.1	75.3	76.6	77.6	79.7	79.9	81.2	82.1
Chinese	71.8	76.7	82.6	82.0	81.3	82.3	83.8	84.6	86.2	85.7	86.8	87.4
Japanese	78.1	82.7	86.1	84.7	87.0	87.7	88.2	87.2	89.2	89.7	89.3	89.3
Filipino	60.6	70.6	77.3	76.5	77.1	77.1	78.7	79.3	81.3	80.9	82.5	83.3
Hawaiian and part Hawaiian	—	—	—	—	65.8	68.1	69.9	70.6	77.0	75.9	78.5	78.0
Other Asian or Pacific Islander	54.9	—	67.6	69.7	71.9	71.9	72.8	74.4	76.2	77.0	78.4	79.7
Hispanic origin ^{c,d}	—	—	60.2	61.2	60.2	61.0	64.2	66.6	68.9	70.8	72.2	73.7
Mexican American	—	—	59.6	60.0	57.8	58.7	62.1	64.8	67.3	69.1	70.7	72.1
Puerto Rican	—	—	55.1	58.3	63.5	65.0	67.8	70.0	71.7	74.0	75.0	76.5
Cuban	—	—	82.7	82.5	84.8	85.4	86.8	88.9	90.1	89.2	89.2	90.4
Central and South American	—	—	58.8	60.6	61.5	63.4	66.8	68.7	71.2	73.2	75.0	76.9
Other and unknown Hispanic	—	—	66.4	65.8	66.4	65.6	68.0	70.0	72.1	74.3	74.6	76.0
Age												
Under age 15	—	30.9	34.5	36.0	37.9	40.3	42.9	44.8	45.7	48.1	47.4	47.1
15-19 years	—	53.3	56.3	53.9	55.1	56.6	59.5	61.9	64.3	66.3	67.1	68.1
20-24 years	—	73.4	74.9	71.7	68.9	69.5	71.2	72.8	74.6	76.0	76.6	77.3
25-29 years	—	81.5	84.0	83.1	81.7	81.9	82.9	83.6	84.5	85.2	85.6	86.1
30-34 years	—	78.9	84.4	85.5	85.3	85.4	86.4	86.9	87.7	88.2	88.6	89.1
35 years and older	—	68.4	76.1	81.3	83.4	83.8	84.6	85.3	86.2	86.7	87.1	87.7

^aThe data refer to those women who had live births.

^bIncludes persons of Hispanic origin.

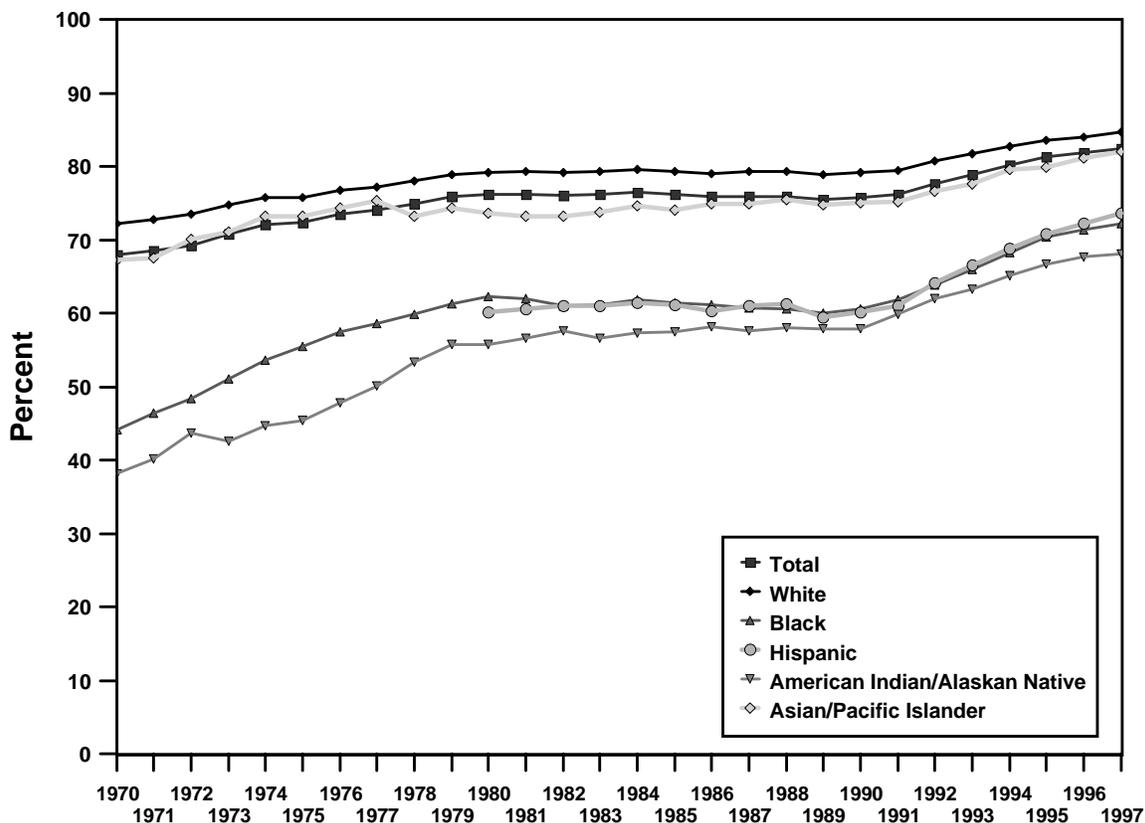
^cPersons of Hispanic origin may be of any race.

^dFigures for Hispanic women 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.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; National Center for Health Statistics. 1998. *Health, United States, 1998*. Hyattsville, Md., Table 6; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1996. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25 and 33; 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, Tables 24, 25, and 33.

Figure HC 3.2

Percentage of women^a in the United States receiving prenatal care in the first trimester, by race/ethnicity^b of mother: 1970-1997



^aThe data refer to those women who had live births.

^bEstimates for all race groups include Hispanics of those races. Persons of Hispanic origin may be of any race. Figures for Hispanic women 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.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; National Center for Health Statistics. 1998. *Health, United States, 1998*. Hyattsville, Md., Table 6; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1996. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11). Hyattsville, Md.: National Center for Health Statistics, 1997, Tables 24, 25 and 33; 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, Tables 24, 25, and 33.

HC 3.3

LATE OR NO PRENATAL CARE

Receiving prenatal care late in a pregnancy, or receiving no prenatal care at all, can lead to negative health outcomes for mother and child. Women who receive care late in their pregnancy, or who do not receive care at all, are at increased risk of bearing infants who are of low birth weight, who are stillborn, or who die within the first year of life.⁶⁹ Between 1970 and 1997, the percentage of women receiving late or no prenatal care declined from 7.9 percent to 3.9 percent (see Figure HC 3.3).

Differences by Race and Ethnicity. The percentage of women who receive late or no prenatal care has declined substantially for women in all racial and ethnic groups (see Table HC 3.3).

- American Indian/Alaska Native women and black women have seen the most dramatic improvements, with the percentages receiving late or no prenatal care dropping by more than two-thirds for American Indian women and by more than half for black women since 1970. In 1997, 8.6 percent of American Indian/Alaska Native women received late or no prenatal care, and 7.3 percent of black women received late or no prenatal care.
- The percentage of Hispanic women receiving late or no prenatal care has decreased every year during the 1990s and at 6.2 percent in 1997 was lower than the rate for black women at 7.3.
- White women and Asian women have consistently been least likely to receive late or no prenatal care. In 1997 3.2 percent of white women received late or no prenatal care, compared to 3.8 percent of Asian women.

Differences by Age. In general, as the age of a woman increases, the likelihood of receiving late or no prenatal care decreases. The percentage of women under ages 15 who received late or no prenatal care is more than double that of women ages 15 through 19 and three to six times greater than women ages 20 and older. Although their rates remain much higher than any other age group, the percentage of women ages 15 and under who received late or no prenatal care has improved substantially since 1975, decreasing from 21.1 percent to 15.5 percent by 1996. However, data for 1997 show the trend turning upward to 16.4 percent. Percentages among women ages 15 through 19 have also improved over this time period, decreasing to 7.2 percent in 1997. Less than four percent of women in each age group 25 and over received late or no prenatal care during pregnancy in 1997. The rate of late or no prenatal care for women ages 30 through 34, reached a low of 2.5 percent (see Table HC 3.3).

⁶⁹ U.S. Public Health Service. 1989. "Caring for Our Future: The Content of Prenatal Care." Washington, D.C.: U.S. Department of Health and Human Services.

Table HC 3.3

Percentage of women^a in the United States receiving late or no prenatal care,^b by race/ethnicity of mother and by age: selected years, 1970-1997

	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Total	7.9	6.0	5.1	5.7	6.1	5.8	5.2	4.8	4.4	4.2	4.0	3.9
Race/ethnicity												
White ^c	6.3	5.0	4.3	4.8	4.9	4.7	4.2	3.9	3.6	3.5	3.3	3.2
Black ^c	16.6	10.5	8.9	10.2	11.3	10.7	9.9	9.0	8.2	7.6	7.3	7.3
American Indian/ Alaska Native ^c	28.9	22.4	15.2	12.9	12.9	12.2	11.0	10.3	9.8	9.5	8.6	8.6
Asian/Pacific												
Islander ^c	6.8	4.6	6.5	6.5	5.8	5.7	4.9	4.6	4.1	4.3	3.9	3.8
Chinese	6.5	4.4	3.7	4.4	3.4	3.4	2.9	2.9	2.7	3.0	2.5	2.4
Japanese	4.1	2.7	2.1	3.1	2.9	2.5	2.4	2.8	1.9	2.3	2.2	2.7
Filipino	7.2	4.1	4.0	4.8	4.5	5.0	4.3	4.0	3.6	4.1	3.3	3.3
Hawaiian and part												
Hawaiian	—	—	—	—	8.7	7.5	7.0	6.7	4.7	5.1	5.0	5.4
Other Asian or Pacific												
Islander	—	—	9.0	8.1	7.1	6.8	5.9	5.4	4.8	5.0	4.6	4.4
Hispanic												
origin ^{d,e}	—	—	12.0	12.4	12.0	11.0	9.5	8.8	7.6	7.4	6.7	6.2
Mexican												
American	—	—	11.8	12.9	13.2	12.2	10.5	9.7	8.3	8.1	7.2	6.7
Puerto Rican	—	—	16.2	15.5	10.6	9.1	8.0	7.1	6.5	5.5	5.7	5.4
Cuban	—	—	3.9	3.7	2.8	2.4	2.1	1.8	1.6	2.1	1.6	1.5
Central and South												
American	—	—	13.1	12.5	10.9	9.5	7.9	7.3	6.5	6.1	5.5	5.0
Other and unknown												
Hispanic	—	—	9.2	9.4	8.5	8.2	7.5	7.0	6.2	6.0	5.9	5.3
Age												
Under age 15	—	21.1	20.0	20.5	20.3	18.8	17.2	16.6	15.9	15.3	15.5	16.4
15-19 years	—	10.8	10.3	12.0	11.9	10.9	9.7	8.9	8.0	7.6	7.3	7.2
20-24 years	—	5.8	5.4	6.9	8.0	7.5	6.7	6.2	5.6	5.4	5.1	5.0
25-29 years	—	3.6	3.1	3.8	4.4	4.3	3.9	3.7	3.4	3.3	3.1	3.1
30-34 years	—	4.3	3.0	3.1	3.4	3.3	3.0	2.9	2.7	2.7	2.5	2.5
35 years and older	—	7.5	5.4	4.5	4.1	3.9	3.6	3.4	3.1	3.1	2.9	2.9

^aThe data refer to those women who had live births.

^bLate prenatal care is defined as seventh month or later.

^cIncludes persons of Hispanic origin.

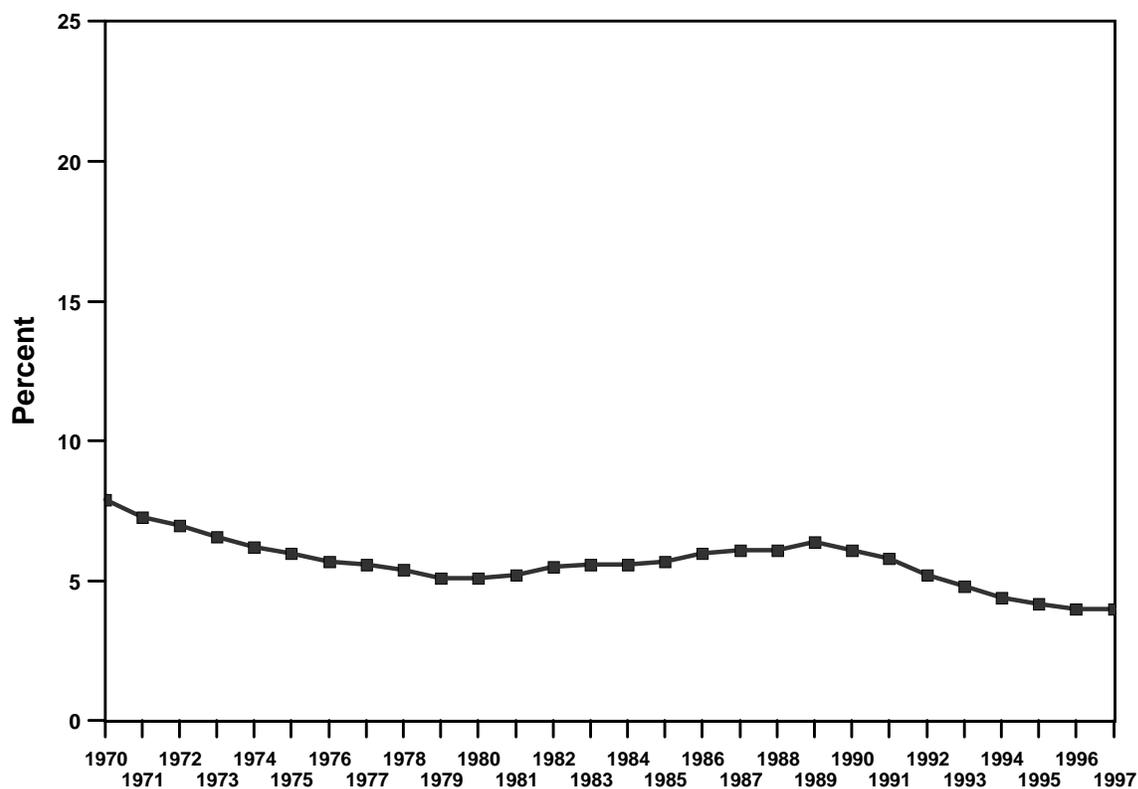
^dPersons of Hispanic origin may be of any race.

^eFigures for Hispanic women 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.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; National Center for Health Statistics. 1998. *Health, United States, 1998*. Hyattsville, Md., Table 6; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1996. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11). Hyattsville, Md.: National Center for Health Statistics, Tables 24, 25, and 33; 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, Tables 24, 25, and 33.

Figure HC 3.3

Percentage of women^a in the United States receiving late or no prenatal care:^b 1970-1997



^aThe data refer to those women who had live births.

^bLate prenatal care is defined as seventh month or later.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Data computed by the Division of Health and Utilization Analysis from data compiled by the Division of Vital Statistics; National Center for Health Statistics. 1998. *Health, United States, 1998*. Hyattsville, Md., Table 6; Ventura, S.J., Martin, J.A., Curtin, S.C., and Mathews, T.J. 1996. "Report of Final Natality Statistics, 1996." *Monthly Vital Statistics Report* 46 (11). Hyattsville, Md.: National Center for Health Statistics, 1997, Tables 24, 25 and 33; 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, Tables 24, 25, and 33.

HC 3.4

INADEQUATE PRENATAL CARE

Receiving early and consistent prenatal care increases the likelihood of a healthy birth outcome. Adequate prenatal care is determined by both the early receipt of prenatal care (within the first trimester) and the receipt of an appropriate number of prenatal care visits for each stage of a pregnancy.⁷⁰ Women whose prenatal care fails to meet these standards are at a greater risk for pregnancy complications and negative birth outcomes.

Differences by Race. While the percentages of both black and white women receiving inadequate prenatal care have declined since 1990, the percentage of black women receiving inadequate care has consistently been more than twice as high as the percentage of white women. This gap has existed since at least 1984 (see Table HC 3.4). For example, in 1997, 10.4 percent of black women received inadequate prenatal care, compared with 4.5 percent of white women.

⁷⁰ The Kessner Index provides a measure for the adequacy of prenatal care by assessing the timeliness and frequency with which prenatal care is received according to the gestational age of the baby. Using the Kessner Index standards, prenatal care is determined to be adequate, intermediate, or inadequate. Adequate prenatal care must begin within the first trimester of pregnancy and follow a prescribed number of minimum prenatal visits by gestational period. Inadequate care encompasses all women who started care after the sixth month of pregnancy (third trimester) and all women who had a low frequency of prenatal visits that followed the pattern described in the following chart:

Gestation (Weeks)		Number of Prenatal Visits
17-21	and	0
22-29	and	1 or 0
30-31	and	2 or fewer
32-33	and	3 or fewer
34 or More	and	4 or fewer

Table HC 3.4

Percentage of women in the United States^a receiving inadequate prenatal care (based on the Kessner Index),^b by race:^c selected years, 1984-1997

	1984	1986	1988	1990	1991	1992	1993	1994	1995	1996	1997
Race^c											
White	6.2	6.3	6.1	6.8	6.4	5.7	5.3	4.9	4.7	4.6	4.5
Black	15.1	15.3	15.5	16.4	15.5	14.5	13.1	12.0	11.0	10.6	10.4

^aBased on 49 states for 1984-1988 and all 50 states for 1989-1997.

^bThe Kessner Index provides a measure for the adequacy of prenatal care by assessing the timeliness and frequency with which prenatal care is received according to the gestational age of the baby. Using the Kessner Index standards, prenatal care is determined to be adequate, intermediate, or inadequate. Adequate prenatal care must begin within the first trimester of pregnancy and follow a prescribed number of minimum prenatal visits by gestational period. Inadequate care encompasses all women who started care after the sixth month of pregnancy (third trimester) and all women who had a low frequency of prenatal visits that followed the pattern described in the following chart:

Gestation (Weeks)		Number of Prenatal Visits
17-21	and	0
22-29	and	1 or 0
30-31	and	2 or fewer
32-33	and	3 or fewer
34 or More	and	4 or fewer

^cFor 1990, 1991, 1992, 1993, 1994, 1995, 1996 and 1997, race is of mother; for 1984, 1986, and 1988, race is of child.

Note: Births with period of gestation, number of prenatal visits, or month prenatal care began not stated were excluded from tabulation.

Source: Unpublished tabulations, Division of Vital Statistics, National Center for Health Statistics.

HC 3.5

IMMUNIZATION: PERCENTAGE OF CHILDREN AGES 19 MONTHS TO 35 MONTHS WHO ARE FULLY IMMUNIZED

Childhood vaccinations can prevent diseases that killed or permanently impaired many children in past decades. The Centers for Disease Control and Prevention recommends that 80 percent of all routine childhood vaccinations be administered within the first two years of life. Vaccination coverage is particularly important before children enter preschool to prevent the spread of disease. Today, at least 95 percent of children are adequately vaccinated by the time they enter kindergarten.⁷¹

There were substantial increases in the proportion of children vaccinated between 1991 and 1994 for each of the recommended vaccines (data not shown).⁷² Coverage has continued to increase during the period from 1994 to 1997. For example, the percentage of preschool children receiving the combined series 4:3:1:3 vaccine was 69 percent in 1994 and reached 76 percent by 1997.⁷³ Even with the increases of recent years, more than one million preschool children remain unvaccinated for serious preventable diseases.⁷⁴ In particular, there are differences in immunization rates by poverty status and race and Hispanic origin.

Differences by Race and Hispanic Origin.⁷⁵ Non-Hispanic white infants ages 19 months to 35 months have higher percentages of vaccination receipt than do non-Hispanic black children or children of Hispanic origin. This disparity in vaccination levels has narrowed somewhat from 1994 to 1997, as the vaccination levels of black and Hispanic children have improved. By preschool, the vaccination levels of children across racial and ethnic groups are nearly the same, narrowing a gap that once was as wide as 26 percentage points for specific vaccinations.⁷⁶ Differences in vaccination rates among racial and ethnic groups are partly accounted for by poverty level.⁷⁷

Differences by Poverty Status. Although vaccination levels have increased substantially between 1995 and 1997 among children in households at or above the poverty level, poor children are still less likely to have received recommended vaccinations.⁷⁸ In 1997, 79 percent of children in families at or above the poverty level received the combined series (4:3:1:3), compared with 71 percent of poor children (see Table HC 3.5).

⁷¹ Office of Communication, Division of Media Relations, Centers for Disease Control and Prevention. 1997. Facts about the Childhood Immunization Initiative.

⁷² Based on data from the National Immunization Program, Center for Prevention Services, from data compiled by the Division of Health Interview Statistics as reported in National Center for Health Statistics. 1997. *Health, United States, 1996-97*. Hyattsville, Md.

⁷³ The combined series 4:3:1:3 consists of four doses of diphtheria-tetanus-pertussis (DTP) vaccine, three doses of polio vaccine, one dose of measles-containing vaccine, and three doses of Haemophilus influenzae type b (HiB) vaccine.

⁷⁴ Office of Communication, Division of Media Relations, Centers for Disease Control and Prevention. 1997. Facts about the Childhood Immunization Initiative.

⁷⁵ Estimates for whites and blacks exclude Hispanics of those races.

⁷⁶ "Vaccination Levels for Minority Children in the U.S. at All-Time High." U.S. Department of Health and Human Services Press Release. October 16, 1997.

⁷⁷ Centers for Disease Control and Prevention. November 13, 1998. "Vaccination Coverage by Race/Ethnicity and Poverty Level among Children Aged 19-35 Months—United States, 1997." *Morbidity and Mortality Weekly Report* 47 (44).

⁷⁸ Centers for Disease Control and Prevention. November 13, 1998. "Vaccination Coverage by Race/Ethnicity and Poverty Level among Children Aged 19-35 Months—United States, 1997." *Morbidity and Mortality Weekly Report* 47 (44).

SEE TABLE FOLLOWING PAGES

Table HC 3.5 (Part 1)

Percentage of children^a ages 19 months to 35 months in the United States who have received routinely recommended vaccinations, by poverty status^b and race and Hispanic origin:^c 1994^d-1997

Vaccination type	All races			White, non-Hispanic		
	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty
Combined series (4:3:1:3)^e						
1994	69	61	72	72	—	—
1995	74	67	77	77	68	79
1996	77	69	80	79	68	81
1997	76	71	79	79	72	80
Combined series (4:3:1)^f						
1994	75	66	78	78	—	—
1995	76	68	79	79	—	—
1996	78	71	81	80	70	82
1997	78	73	80	80	73	82
DTP (3 doses or more)^g						
1994	93	89	96	95	—	—
1995	95	91	96	96	—	—
1996	95	92	96	96	92	97
1997	95	93	97	97	93	97
DTP (4 doses or more)^g						
1994	76	69	79	80	—	—
1995	79	71	81	81	—	—
1996	81	73	84	83	72	85
1997	81	76	84	84	76	85
Polio (3 doses or more)						
1994	83	78	85	85	—	—
1995	88	84	89	89	—	—
1996	91	88	92	92	88	93
1997	91	90	92	92	90	92
Measles-containing^h						
1994	89	87	90	90	—	—
1995	90	85	91	91	—	—
1996	91	87	92	92	86	93
1997	91	86	92	92	85	93
HiB (3 doses or more)ⁱ						
1994	86	81	88	87	—	—
1995	92	88	93	93	—	—
1996	92	88	93	93	87	94
1997	93	90	94	94	90	95
Hepatitis B (3 doses or more)^j						
1994	37	25	41	40	—	—
1995	68	64	69	68	—	—
1996	82	78	83	82	75	83
1997	84	80	85	85	80	85

Table HC 3.5 (Part 2)

Percentage of children^a ages 19 months to 35 months in the United States who have received routinely recommended vaccinations, by poverty status^b and race and Hispanic origin:^c 1994^d-1997

Vaccination type	Black, non-Hispanic			Hispanic		
	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty
Combined series (4:3:1:3)^e						
1994	67	—	—	62	—	—
1995	70	66	75	69	65	72
1996	74	70	78	71	68	74
1997	73	71	77	72	70	76
Combined series (4:3:1)^f						
1994	69	—	—	68	—	—
1995	72	—	—	71	—	—
1996	76	73	80	73	70	75
1997	74	72	78	74	72	77
DTP (3 doses or more)^g						
1994	91	—	—	90	—	—
1995	92	—	—	93	—	—
1996	93	91	95	93	92	94
1997	95	95	96	93	92	94
DTP (4 doses or more)^g						
1994	72	—	—	70	—	—
1995	74	—	—	75	—	—
1996	79	75	82	77	73	79
1997	78	76	80	77	75	80
Polio (3 doses or more)						
1994	79	—	—	81	—	—
1995	84	—	—	87	—	—
1996	90	88	92	89	88	90
1997	90	90	91	90	89	90
Measles-containing^h						
1994	86	—	—	88	—	—
1995	86	—	—	88	—	—
1996	89	88	91	88	88	89
1997	90	88	92	88	86	89
HiB (3 doses or more)ⁱ						
1994	85	—	—	84	—	—
1995	89	—	—	90	—	—
1996	90	87	92	89	88	90
1997	92	92	94	90	89	92
Hepatitis B (3 doses or more)^j						
1994	29	—	—	33	—	—
1995	65	—	—	69	—	—
1996	82	79	86	80	79	82
1997	83	82	84	81	79	84

Table HC 3.5 (Part 3)

Percentage of children^a ages 19 months to 35 months in the United States who have received routinely recommended vaccinations, by poverty status^b and race and Hispanic origin:^c 1994^d-1997

Note: Some numbers in this table may differ from those published in previous editions of this report. Revised estimates of data from the National Immunization Survey, published in *Health, United States, 1998* (see source statement), include an adjustment for children with missing immunization provider data.

^aData are based on telephone interviews of a sample of the civilian, noninstitutionalized population, with households selected via a random digit dial (RDD) procedure. Refusals and unknowns were excluded. Exclusions included unknown vaccine type.

^bPoverty status is based on family income and family size using U.S. Bureau of the Census poverty thresholds.

^cEstimates for whites and blacks exclude Hispanics of those races. Persons of Hispanic origin may be of any race.

^dEstimates are based on interviews conducted from April 1994 through December 1994.

^eThe combined series 4:3:1:3 consists of four doses of diphtheria-tetanus-pertussis (DTP) vaccine, three doses of polio vaccine, one dose of a measles-containing vaccine, and three doses of Haemophilus influenzae type b (HiB) vaccine.

^fThe combined series 4:3:1 consists of four doses of DTP vaccine, three doses of polio vaccine, and one dose of a measles-containing vaccine.

^gDiphtheria-tetanus-pertussis vaccine.

^hAny vaccination containing measles vaccine.

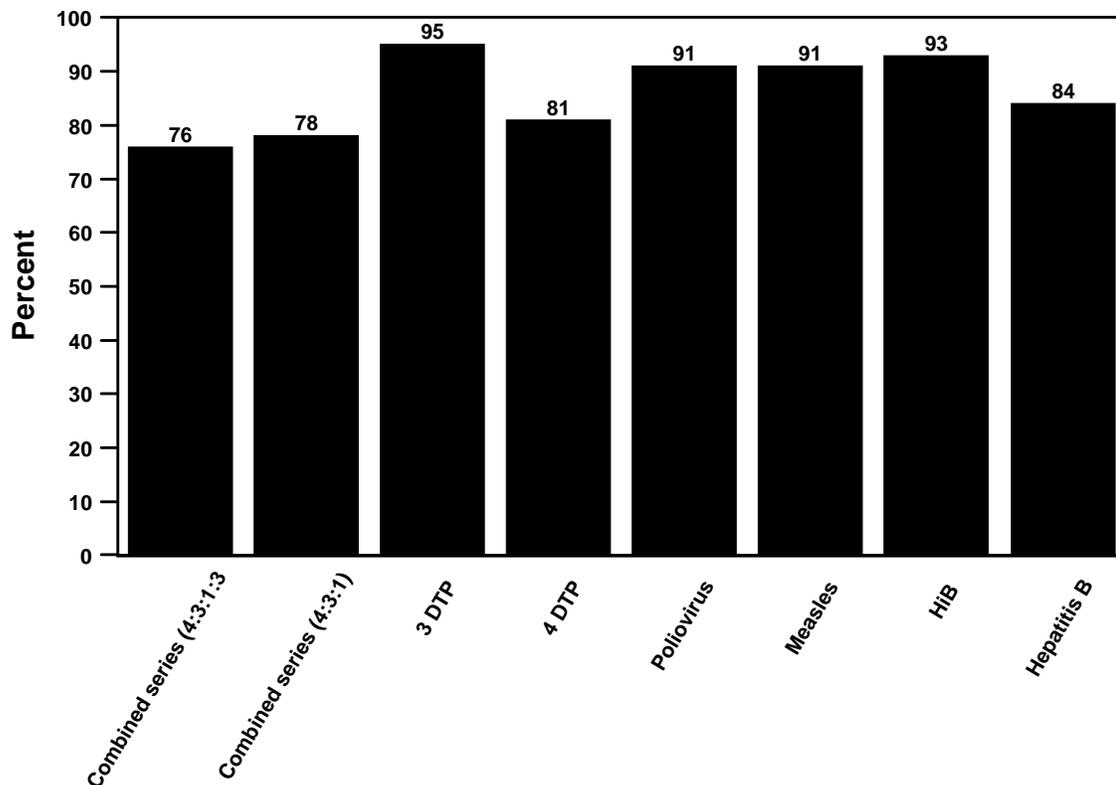
ⁱHaemophilus influenzae type b vaccine.

^jThe percentage of children 19-35 months of age who received three or more doses of hepatitis B vaccine was artificially low in 1994 because universal infant vaccination with a three-dose series was not recommended until November 1991.

Sources: Unpublished data from the National Immunization Survey, National Center for Health Statistics and National Immunization Program, Centers for Disease Control and Prevention; Centers for Disease Control and Prevention. July 10, 1998. "National, State, and Urban Area Vaccination Coverage Levels among Children Aged 19-35 Months—United States, 1997." *Morbidity and Mortality Weekly Report* 47 (26), Table 1; Centers for Disease Control and Prevention. November 13, 1998. "Vaccination Coverage by Race/Ethnicity and Poverty Level among Children Aged 19-35 Months—United States, 1997." *Morbidity and Mortality Weekly Report* 47 (44), Table 1 and text; National Center for Health Statistics. *Health, United States, 1996-97*. Hyattsville, Md.: 1997, Table 55; Centers for Disease Control and Prevention. October 17, 1997. "Vaccination Coverage by Race/Ethnicity and Poverty Level among Children Aged 19-35 Months—United States, 1996." *Morbidity and Mortality Weekly Report* 46 (41), Tables 1 and 2; National Center for Health Statistics. 1998. *Health, United States, 1998 with Socioeconomic Status and Health Chartbook*. Hyattsville, Md., Table 52.

Figure HC.3.5

Percentage of children^a ages 19 months to 35 months in the United States who have received vaccinations for routinely recommended vaccines:^b 1997



^aData are based on telephone interviews of a sample of the civilian, noninstitutionalized population, with households selected via a random digit dial (RDD) procedure. Refusals and unknowns were excluded. Exclusions included unknown vaccine type.

^bThe combined series 4:3:1:3 consists of four doses of diphtheria-tetanus-pertussis (DTP) vaccine, three doses of polio vaccine, one dose of a measles-containing vaccine, and three doses of Haemophilus influenzae type b (HiB) vaccine. The combined series 4:3:1 consists of four doses of DTP vaccine, three doses of polio vaccine, and one dose of a measles-containing vaccine.

Source: Centers for Disease Control and Prevention. July 10, 1998. "National, State, and Urban Area Vaccination Coverage Levels among Children Aged 19-35 Months—United States, 1997." *Morbidity and Mortality Weekly Report* 47 (26), Table 1.