

Health Conditions and Health Care



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 government 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.⁵⁰ 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.⁵¹ Hispanic children are less likely to be covered than either white or black children. In 1998, 70 percent of Hispanic children were covered by health insurance, compared with 86 percent of white, 83 percent of Asian and Pacific Islander, and 80 percent of black children (see Table HC 3.1.A).

Differences by Poverty Status. Poor children have lower rates of health insurance coverage at 75 percent compared to 85 percent for all children in 1998 (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 23 percent compared to 68 percent for all children.

Differences by Type of Health Care Coverage. Government 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 1998 (see Figure HC 3.1).⁵² Younger children are considerably more likely to be covered by government health insurance. In 1998, 27 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 government health insurance for their medical coverage. In 1998, 42 percent of black and 31 percent of Hispanic children were covered by government health insurance, compared with 19 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 government health insurance are covered by Medicaid (see Table 3.1.C).

⁵⁰ Simpson G., Bloom B., Cohen R.A., & Parsons P.E. 1997. Access to Health Care. Part 1: Children. *Vital and Health Statistics* 10 (196). National Center for Health Statistics.

⁵¹ Estimates for whites, blacks, and Asians and Pacific Islanders include Hispanics of those races. Hispanic children may be of any race.

⁵² Government 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 1987-1998

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All health insurance												
All children	87	87	87	87	87	87	86	86	86	85	85	85
Under age 6	88	87	87	89	89	89	88	86	87	86	86	84
Ages 6-11	87	87	87	87	88	88	87	87	87	85	86	85
Ages 12-17	86	86	86	85	85	85	83	85	86	84	83	84
Race and Hispanic origin ^a												
White	88	88	88	87	88	88	87	87	87	86	86	86
Black ^a	83	84	84	85	85	86	84	83	85	81	81	80
Hispanic	72	71	70	72	73	75	74	72	73	71	71	70
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	85	83
Private health insurance												
All children	74	74	74	71	70	69	67	66	66	66	67	68
Age												
Under age 6	72	71	71	68	66	65	63	60	60	62	63	64
Ages 6-11	74	74	75	73	71	71	70	67	67	67	68	68
Ages 12-17	75	76	76	73	72	71	69	70	71	70	70	70
Race and Hispanic origin ^a												
White	79	79	78	76	75	74	72	71	71	71	71	72
Black ^a	49	50	52	49	45	46	46	43	44	45	48	47
Hispanic	48	48	48	45	43	42	42	38	38	40	42	43
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	70	67
Government health insurance^b												
All children	19	19	19	22	24	25	27	26	26	25	23	23
Age												
Under age 6	22	23	24	28	30	33	35	33	33	31	29	27
Ages 6-11	19	18	18	20	22	23	25	25	26	25	23	23
Ages 12-17	16	16	15	18	19	19	20	20	21	19	19	19
Race and Hispanic origin ^a												
White	14	14	15	17	19	20	22	21	21	21	20	19
Black ^a	42	42	41	45	48	49	50	48	49	45	40	42
Hispanic	28	27	27	32	37	38	41	38	39	35	34	31

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

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

Sources: Housing and Household Economic Statistics Division, U.S. Census Bureau, analyses from the March Current Population Surveys. Health Insurance Coverage: 1998, Table 7, available online at

<http://www.census.gov/hhes/hlthins/hlthin98/hi98t7.html>, 10/4/99, and unpublished Table 1: Health Insurance Coverage Status—People by Age, Gender, and Race: 1997. Estimates for 1987-1998 as published in Federal Interagency Forum on Child and Family Statistics, 2000 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 1998

	All health insurance	Private health insurance	Government health insurance
All poor children	75	23	59
Age			
Under age 6	76	20	64
Ages 6-11	77	25	60
Ages 12-17	70	24	52
Race and Hispanic origin^a			
White	72	25	55
Black	79	18	66
Hispanic	67	16	55
Asian/Pacific Islander	83	30	62

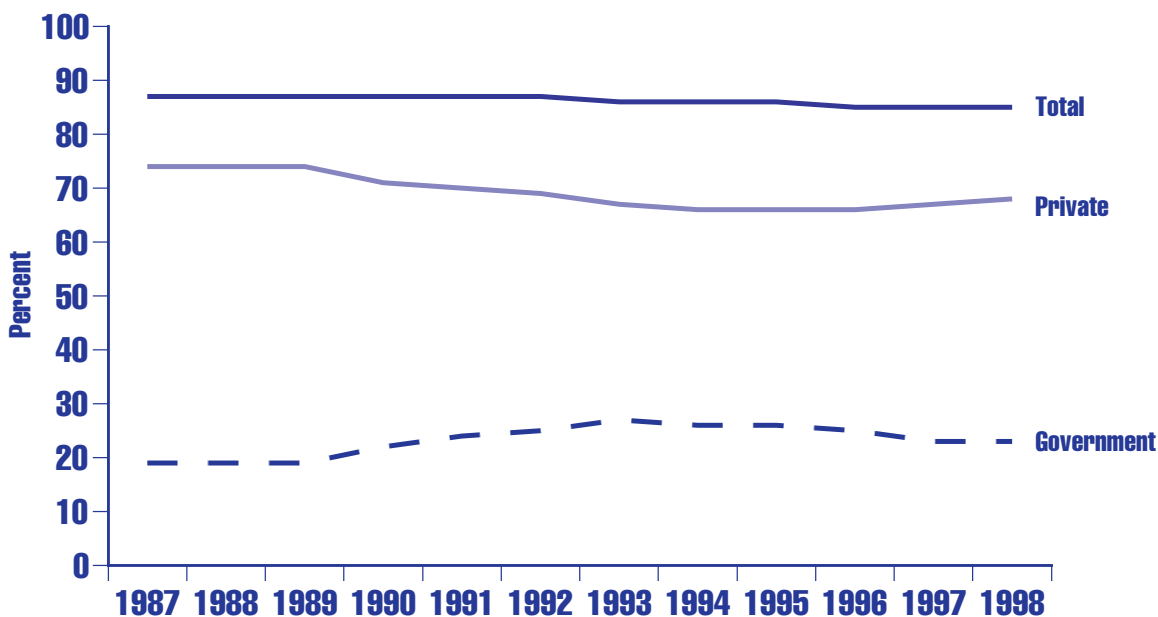
^a Estimates for whites and blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

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

Source: Housing and Household Economic Statistics Division, U.S. Census Bureau, analyses from the March Current Population Surveys. Health Insurance Coverage: 1998, Table 7.

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 1987-1998



^a Government 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: 1998, Table 7, available online at <http://www.census.gov/hhes/hlthins/hlthin98/hi98t7.html>, 10/4/99. Estimates for 1987-1996 as published in America's Children: Key National Indicators of Well-Being, 1998, Table ECON5.A.

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 1987-1998

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total all children	15	16	16	19	20	22	24	23	23	22	21	20
Age												
Under age 6	18	19	20	24	27	30	32	30	30	28	26	24
Ages 6-11	15	15	15	17	19	20	22	22	23	22	20	20
Ages 12-17	12	12	11	14	15	15	17	16	17	16	16	16
Race and Hispanic origin ^a												
White	11	11	11	14	16	17	19	18	18	18	17	16
Black	38	38	37	42	44	46	47	44	45	41	37	39
Hispanic	26	25	25	30	34	37	39	37	37	34	32	30
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	18	19
Poor children	56	57	57	62	66	66	67	64	65	63	61	58
Age												
Under age 6	61	63	63	71	75	74	76	72	73	71	67	63
Ages 6-11	56	57	56	59	64	64	66	65	65	63	62	59
Ages 12-17	48	48	47	52	54	55	54	52	53	51	52	51
Race and Hispanic origin ^a												
White	49	49	49	56	59	60	62	59	59	59	57	54
Black	67	69	69	73	77	76	77	74	76	70	68	65
Hispanic	53	48	50	58	61	63	62	62	64	60	60	54
Asian/Pacific Islander	—	—	—	—	—	—	—	—	—	—	63	61

^a Estimates 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, Table 7.

HC 3.2 Prenatal Care

Early Prenatal Care

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.⁵³

The percentage of women receiving prenatal care in the first trimester has increased from 68.0 percent in 1970 to 83.2 percent in 1999 (see Table HC 3.2.A).⁵⁴ 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 3 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 women with lower levels of timely care, white, Chinese, Japanese, and Cuban women are most likely to receive prenatal care in their first trimester (see Table HC 3.2.A).

- American Indian/Alaska Native and Mexican women have consistently had the lowest percentage of women receiving early prenatal care; however, this percentage has increased to 68.8 for American Indian women and 72.8 percent for Mexican women in 1998.
- 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 then increased in subsequent years, reaching 74 percent by 1999.
- The percentage of all Hispanic women who receive early prenatal care has increased from 60.2 percent in 1980 to 74.3 percent by 1998. Among Hispanics, there are important subgroup disparities. In 1998, 91.8 percent of Cuban women received early prenatal care, compared with 72.8 percent of Mexican American women.
- Since 1980, early prenatal care receipt has improved among Asian/Pacific Islander women as a group—from 73.7 percent in 1980 to 83.1 percent in 1998. Chinese, Japanese, and Filipino women tend to have higher rates of prenatal care than 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 88.4 percent by 1999.

⁵³ 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.

⁵⁴ These data include only those women who gave birth, not all women who were pregnant.

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 birthweight, who are stillborn, or who die within the first year of life.⁵⁵ Between 1970 and 1999, the percentage of women receiving late or no prenatal care declined from 7.9 percent to 3.8 percent (see Table HC 3.2.B).

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 3.2.B).

- 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 1998, 8.5 percent of American Indian/Alaska Native women received late or no prenatal care, and 7.0 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 6.3 percent in 1998 was lower than the rate for black women at 7.0.
- White women and Asian women as a group have consistently been least likely to receive late or no prenatal care. In 1998, 2.4 percent of white women received late or no prenatal care, compared to 3.6 percent of Asian women.

Adequacy of 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. Women whose prenatal care fails to meet these standards are at a greater risk for pregnancy complications and negative birth outcomes.

There has been a sharp decline in the percentage of women receiving inadequate prenatal care from 18 percent in 1989 to 11.9 percent in 1998 (see Table HC 3.2.C). According to the Adequacy of Prenatal Care Utilization Index, the proportion of women with at least adequate care rose from 66.1 percent to 74.3 percent between 1989 and 1998. The proportion of women with intensive use of care (women for whom the number of visits exceeded the American College of Obstetricians and Gynecologists' recommendations by a ratio of observed to expected visits of at least 110 percent) rose from 24.1 to 31 percent during the same time period.

⁵⁵ U.S. Public Health Service, 1989.

Table HC 3.2.A

Percentage of women^a in the United States receiving prenatal care in the first trimester, by race/ethnicity of mother: Selected years, 1970-1999

	1970	1980	1985	1990 ^b	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	68.0	76.3	76.2	75.8	76.2	77.7	78.9	80.2	81.3	81.9	82.5	82.8	83.2
Race/ethnicity													
White ^b	72.3	79.2	79.3	83.3	83.7	84.9	85.6	86.5	87.1	87.4	87.9	87.9	88.4
Black ^b	44.2	62.4	61.5	60.7	61.9	64.0	66.1	68.3	70.4	71.5	72.3	73.3	74.0
American Indian/ Alaska Native	38.2	55.8	57.5	57.9	59.9	62.1	63.4	65.2	66.7	67.7	68.1	68.8	—
Asian/Pacific Islander	67.3	73.7	74.1	75.1	75.3	76.6	77.6	79.7	79.9	81.2	82.1	83.1	—
Chinese	71.8	82.6	82.0	81.3	82.3	83.8	84.6	86.2	85.7	86.8	87.4	88.5	—
Japanese	78.1	86.1	84.7	87.0	87.7	88.2	87.2	89.2	89.7	89.3	89.3	90.2	—
Filipino	60.6	77.3	76.5	77.1	77.1	78.7	79.3	81.3	80.9	82.5	83.3	84.2	—
Hawaiian	—	—	—	65.8	68.1	69.9	70.6	77.0	75.9	78.5	78.0	78.8	—
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	80.9	—
Hispanic origin ^{c,d}	—	60.2	61.2	60.2	61.0	64.2	66.6	68.9	70.8	72.2	73.7	74.3	74.5
Mexican American	—	59.6	60.0	57.8	58.7	62.1	64.8	67.3	69.1	70.7	72.1	72.8	—
Puerto Rican	—	55.1	58.3	63.5	65.0	67.8	70.0	71.7	74.0	75.0	76.5	76.9	—
Cuban	—	82.7	82.5	84.8	85.4	86.8	88.9	90.1	89.2	89.2	90.4	91.8	—
Central and South American	—	58.8	60.6	61.5	63.4	66.8	68.7	71.2	73.2	75.0	76.9	78.0	—
Unknown Hispanic	—	66.4	65.8	66.4	65.6	68.0	70.0	72.1	74.3	74.6	76.0	74.8	—

^a The data refer to those women who had live births.

^b Includes persons of Hispanic origin until 1990. After 1990 persons of Hispanic origin are not included.

^c Persons of Hispanic origin may be of any race.

^d 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: Curtin & Martin, 2000; 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, Table 6; Ventura, et al., 2000, Births, Tables 24, 25 and 33; Ventura, et al., 1999, Births, Tables 24, 25, and 33.

Table HC 3.2.B

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, 1970-1999

	1970	1980	1985	1990	1991	1992	1993 ^c	1994	1995	1996	1997	1998	1999
Total	7.9	5.1	5.7	6.1	5.8	5.2	4.8	4.4	4.2	4.0	3.9	3.9	3.8
Race/ethnicity													
White ^c	6.3	4.3	4.8	4.9	4.7	4.2	2.7	2.5	2.5	2.4	2.4	2.4	2.3
Black ^c	16.6	8.9	10.2	11.3	10.7	9.9	9.0	8.2	7.6	7.3	7.3	7.0	6.7
American Indian/ Alaska Native	28.9	15.2	12.9	12.9	12.2	11.0	10.3	9.8	9.5	8.6	8.6	8.5	—
Asian/Pacific Islander	6.8	6.5	6.5	5.8	5.7	4.9	4.6	4.1	4.3	3.9	3.8	3.6	—
Chinese	6.5	3.7	4.4	3.4	3.4	2.9	2.9	2.7	3.0	2.5	2.4	2.2	—
Japanese	4.1	2.1	3.1	2.9	2.5	2.4	2.8	1.9	2.3	2.2	2.7	2.1	—
Filipino	7.2	4.0	4.8	4.5	5.0	4.3	4.0	3.6	4.1	3.3	3.3	3.1	—
Hawaiian	—	—	—	8.7	7.5	7.0	6.7	4.7	5.1	5.0	5.4	4.7	—
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	4.2	—
Hispanic origin ^{c, d}	—	12.0	12.4	12.0	11.0	9.5	8.8	7.6	7.4	6.7	6.2	6.3	6.3
Mexican American	—	11.8	12.9	13.2	12.2	10.5	9.7	8.3	8.1	7.2	6.7	6.8	—
Puerto Rican	—	16.2	15.5	10.6	9.1	8.0	7.1	6.5	5.5	5.7	5.4	5.1	—
Cuban	—	3.9	3.7	2.8	2.4	2.1	1.8	1.6	2.1	1.6	1.5	1.2	—
Central and South American	—	13.1	12.5	10.9	9.5	7.9	7.3	6.5	6.1	5.5	5.0	4.9	—
Unknown Hispanic	—	9.2	9.4	8.5	8.2	7.5	7.0	6.2	6.0	5.9	5.3	6.0	—

^a The data refer to those women who had live births.

^b Late prenatal care is defined as seventh month or later.

^c Includes persons of Hispanic origin until 1993. After 1993, persons of Hispanic origin are not included. Persons of Hispanic origin may be of any race.

^d 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: Curtin, & Mathews, 2000, Table 6; Ventura, et al., 2000, Births, Tables 24, 25, and 33.

Table HC 3.2.C
Adequacy of Prenatal Care Utilization Index^a: United States, 1989, 1990, and 1995-1998

	1989	1990 ^a	1995 ^a	1996	1997	1998
Intensive use	24.1	24.6	28.8	29.3	30.7	31.0
Adequate	42.0	42.3	43.7	43.6	43.3	43.3
Intermediate	15.9	15.7	14.7	14.7	14.0	13.8
Inadequate	18.0	17.4	12.8	12.4	12.0	11.9

^a Kotelchuck M. An evaluation of the Kessner adequacy of prenatal care index and a proposed adequacy of prenatal care utilization index. *Am J Public Health* 84(9):1414–20. 1994 Kogan MD, Martin JA, Alexander GR, et al. The changing pattern of prenatal care utilization in the United States, 1981–1985, using different prenatal care indices. *JAMA* 279(20):1623–28. 1998.

Sources: Ventura, et al., 2000, Births, Table F.



HC 3.3 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 2 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.⁵⁶

There were substantial increases in the proportion of children vaccinated between 1991 and 1994 for each of the recommended vaccines (data not shown).⁵⁷ Coverage has continued to increase during the period from 1994 to 1998. For example, the percentage of preschool children receiving the combined series 4:3:1:3 vaccine was 69 percent in 1994 and reached 79 percent by 1998 (see Table HC 3.3).⁵⁸ Even with the increases of recent years, more than 1 million preschool children remain unvaccinated for serious preventable diseases.⁵⁹ In particular, there are differences in immunization rates by poverty status and race and Hispanic origin.

Differences by Race and Hispanic Origin.⁶⁰ 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 (see Table HC 3.3). 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.⁶¹ Differences in vaccination rates among racial and ethnic groups are partly accounted for by poverty level.⁶²

Differences by Poverty Status. Although vaccination levels have increased substantially between 1995 and 1998 among children in households at or above the poverty level, poor children are still less likely to have received recommended vaccinations.⁶³ In 1998, 82 percent of children in families at or above the poverty level received the combined series 4:3:1:3, compared with 74 percent of poor children (see Table HC 3.3).

⁵⁶ Office of Communication, Division of Media Relations, Centers for Disease Control and Prevention. 1997. Facts about the Childhood Immunization Initiative.

⁵⁷ 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, 2000. *Health, United States, 2000*. Hyattsville, MD.

⁵⁸ 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.

⁵⁹ Office of Communication, Division of Media Relations, Centers for Disease Control and Prevention. 1997. Facts about the Childhood Immunization Initiative.

⁶⁰ Estimates for whites and blacks exclude Hispanics of those races.

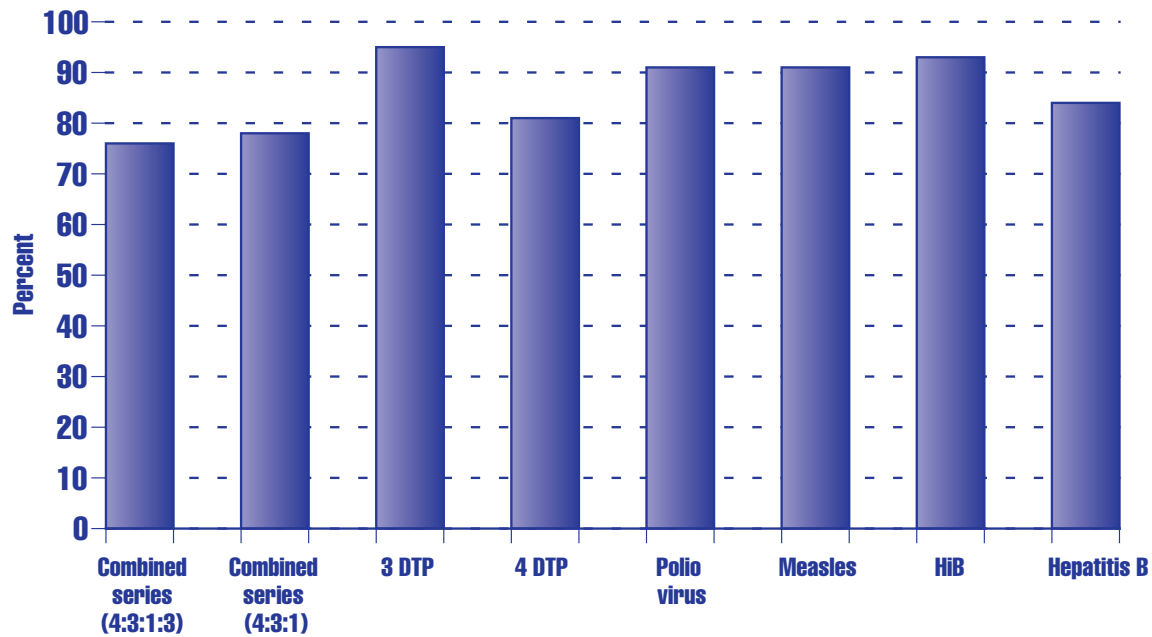
⁶¹ Vaccination Levels for Minority Children in the U.S. at All-Time High. U.S. Department of Health and Human Services Press Release. October 16, 1997.

⁶² 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).

⁶³ Centers for Disease Control and Prevention. November 13, 1998.

Figure HC 3.3

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



^a Data 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.

^b 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 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. National Center for Health Statistics and National Immunization Program, 2000, Table 73.

Table HC 3.3

Percentage of children ages 19 months to 35 months in the United States who have received routinely recommended vaccinations, by poverty status^a and race and Hispanic origin:^b1994-1998

Vaccination type	All races			White, non-Hispanic			Black, non-Hispanic			Hispanic		
	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty
Combined series (4:3:1:3)^d												
1994	69	61	72	72	—	—	67	—	—	62	—	—
1995	74	67	77	77	68	79	70	66	75	69	65	72
1996	77	69	80	79	68	81	74	70	78	71	68	74
1997	76	71	79	79	72	80	73	71	77	72	70	76
1998	79	74	82	82	77	83	73	72	74	75	73	79
Combined series (4:3:1)^e												
1994	75	66	78	78	—	—	69	—	—	68	—	—
1995	76	68	79	79	—	—	72	—	—	71	—	—
1996	78	71	81	80	70	82	76	73	80	73	70	75
1997	78	73	80	80	73	82	74	72	78	74	72	77
1998	—	—	—	—	—	—	—	—	—	—	—	—
DTP (3 doses or more)^f												
1994	93	89	96	95	—	—	91	—	—	90	—	—
1995	95	91	96	96	—	—	92	—	—	93	—	—
1996	95	92	96	96	92	97	93	91	95	93	92	94
1997	95	93	97	97	93	97	95	95	96	93	92	94
1998	—	—	—	—	—	—	—	—	—	—	—	—
DTP (4 doses or more)^f												
1994	76	69	79	80	—	—	72	—	—	70	—	—
1995	79	71	81	81	—	—	74	—	—	75	—	—
1996	81	73	84	83	72	85	79	75	82	77	73	79
1997	81	76	84	84	76	85	78	76	80	77	75	80
1998	84	80	86	87	—	—	77	—	—	81	—	—
Polio (3 doses or more)												
1994	83	78	85	85	—	—	79	—	—	81	—	—
1995	88	84	89	89	—	—	84	—	—	87	—	—
1996	91	88	92	92	88	93	90	88	92	89	88	90
1997	91	90	92	92	90	92	90	90	91	90	89	90
1998	91	90	92	92	—	—	88	—	—	89	—	—
Measles-containing^g												
1994	89	87	90	90	—	—	86	—	—	88	—	—
1995	90	85	91	91	—	—	86	—	—	88	—	—
1996	91	87	92	92	86	93	89	88	91	88	88	89
1997	91	86	92	92	85	93	90	88	92	88	86	89
1998	92	90	93	93	—	—	89	—	—	91	—	—

Table HC 3.3 continued

Percentage of children ages 19 months to 35 months in the United States who have received routinely recommended vaccinations, by poverty status^a and race and Hispanic origin:^b1994-1998

Vaccination type	All races			White, non-Hispanic			Black, non-Hispanic			Hispanic		
	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty	Total	Below poverty	At or above poverty
HiB (3 doses or more)^h												
1994	86	81	88	87	—	—	85	—	—	84	—	—
1995	92	88	93	93	—	—	89	—	—	90	—	—
1996	92	88	93	93	87	94	90	87	92	89	88	90
1997	93	90	94	94	90	95	92	92	94	90	89	92
1998	93	91	95	95	—	—	90	—	—	92	—	—
Hepatitis B (3 doses or more)ⁱ												
1994	37	25	41	40	—	—	29	—	—	33	—	—
1995	68	64	69	68	—	—	65	—	—	69	—	—
1996	82	78	83	82	75	83	82	79	86	80	79	82
1997	84	80	85	85	80	85	83	82	84	81	79	84
1998	87	85	88	88	—	—	84	—	—	86	—	—

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

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

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

^d 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 a measles-containing vaccine, and three doses of Haemophilus influenzae type b (HiB) vaccine.

^e 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.

^f Diphtheria-tetanus-pertussis vaccine.

^g Any vaccination containing measles vaccine.

^h Haemophilus influenzae type b vaccine.

ⁱ The 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. 1998; Table 1; Centers for Disease Control and Prevention, 1998, Table 1 and text; National Center for Health Statistics, 1997, Table 55; Centers for Disease Control and Prevention, 1997, Tables 1 and 2; National Center for Health Statistics, 1998, Table 52.