
National Health Statistics Reports

Number 1 ■ June 19, 2008

State, Regional, and National Estimates of Health Insurance Coverage for People Under 65 Years of Age: National Health Interview Survey, 2004–2006

by Robin A. Cohen, Ph.D., Division of Health Interview Statistics, and Diane M. Makuc, Dr. P.H.,
Office of Analysis and Epidemiology

Abstract

Objectives—This report presents state, regional, and national estimates of the percentages of persons under 65 years of age who were uninsured, who had private health insurance coverage, and who had Medicaid or State Children’s Health Insurance Program (SCHIP) coverage.

Methods—The estimates were derived from the Family Core component of the 2004–2006 National Health Interview Survey (NHIS). Three years of data were combined to increase the reliability of estimates. Regional and national estimates are based on data from all 50 states and the District of Columbia. State estimates are shown for the 41 states with at least 1,000 NHIS respondents during 2004–2006. Differences between national and subnational estimates were tested for statistical significance to identify those regions and states that differ significantly from the U.S. overall.

Results—The results show that the percentage of persons under age 65 who lacked any insurance coverage at a point in time varied by 20 percentage points among the states. Almost all states that were significantly higher than the U.S. rate on the percentage uninsured were significantly lower than the U.S. rate on the percentage with private coverage and vice versa.

Introduction

Health insurance coverage is critically important for obtaining access to health care (1). Population estimates of health insurance coverage are necessary for the development and assessment of federal and state insurance programs and policies (2). Almost all people aged 65 years and older have health insurance coverage through the Medicare program. Although the majority of persons under

age 65 have private employer-sponsored group health insurance or some other type of coverage (3), 16.8% of persons under age 65 lacked any type of health insurance at a point in time in 2006 (4). This report presents state, regional, and national estimates of the percentages of persons under 65 years of age who were uninsured, who had private coverage, and who had Medicaid or State Children’s Health Insurance Program (SCHIP) coverage in 2004–2006.

Methods

The estimates in this report are based on data from the National Health Interview Survey (NHIS), an in-person household survey of the civilian noninstitutionalized population of the United States. Three years of data were combined to increase the reliability of estimates. Regional and national estimates are based on data from all 50 states and the District of Columbia. State estimates are shown for the 41 states with at least 1,000 NHIS respondents during 2004–2006. Unless otherwise noted, this report presents point-in-time coverage estimates based on questions about coverage at the time of the NHIS household interview. In addition, estimates of the uninsured (point-in-time) are shown for persons with low family income (below 200% of the federal poverty level) and higher family income (200% of the federal poverty level or more), using NHIS imputed income files (5) for persons under 65 years of age. In this report, the term “adults” refers to persons 18–64 years of age, and the term “children” refers to persons under 18 years of age.

Differences between national and subnational estimates were tested for statistical significance to identify those



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



regions and states that differ significantly from the United States overall. Terms such as “higher than” and “lower than” indicate a statistically significant difference. Lack of comment regarding the difference between any two estimates does not necessarily mean that the difference was tested and found to be not significant. For more information on NHIS, estimation methods, and definitions of terms, please see the “Technical Notes” section at the end of this report.

Results

National estimates of health insurance coverage

- The percentage of persons with no health insurance coverage was 10 percentage points higher for adults than for children.

In 2004–2006, the majority of persons under age 65 in the United States had private health insurance coverage (67.8%); a much smaller percentage were insured through Medicaid or SCHIP (13.2%) or other types of public coverage, and 16.6% were uninsured (Table 1). Although children were less likely than adults to have private coverage, the percentage of children with Medicaid or SCHIP coverage was 20.7 percentage points higher than for adults, resulting in a lower percentage of children than adults who were uninsured (9.3% compared with 19.6%).

Regional estimates of health insurance coverage

- The percentage of persons under age 65 who were uninsured was lowest in New England and highest in the Southwest.

Among both children and adults, the percentage of persons who were uninsured was lowest in New England and highest in the Southwest. In New England, 3.7% of children and 11.0% of adults were uninsured, compared with 18.2% of children and 29.9% of adults in the Southwest. Private

coverage among children (50.3%) and adults (61.0%) in the Southwest was lower than in any other region. Although public coverage of children through Medicaid or SCHIP in the Southwest was about 2 percentage points higher than in the United States overall, it did not compensate for the low rate of private coverage.

Medicaid or SCHIP coverage among children varied from 20.7% in the Rocky Mountain region to 31.3% in the Southeast. Medicaid or SCHIP coverage was much lower for adults than for children in every region; it varied from 4.5% in the Rocky Mountain region to 9.7% in New England.

State estimates of the uninsured

- The percentage of persons under age 65 who were uninsured varied by about 20 percentage points among the states.

The percentage of persons under age 65 who were *uninsured at the time of interview* varied among the states from 7.8% to 28.2% (Table 2).

This percentage was higher than in the United States overall (16.6%) for nine states concentrated in the Southeast and Southwest, and this percentage was lower than in the U.S. overall for 18 states concentrated in the New England, Mideast, Great Lakes, and Plains regions (Figure 1, Table 2).

The percentage of persons under age 65 who were *uninsured for at least part of the past year* varied among the states from 10.4% to 31.9%. With a few exceptions, the same states were lower or higher than in the United States overall for this measure and for point-in-time lack of coverage. Long-term lack of insurance, as measured by the percentage *uninsured for more than 1 year*, varied among the states from 4.2% to 20.4%. Again, with a few exceptions, the same states were lower or higher than the United States overall for both long-term and point-in-time lack of coverage.

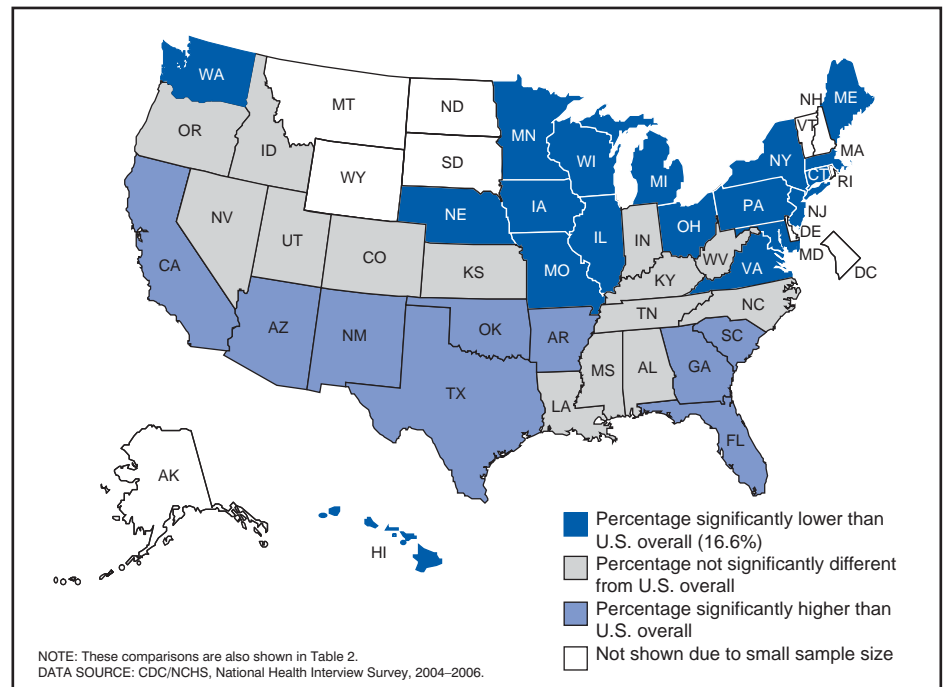


Figure 1. Uninsured at the time of interview—Comparisons of state and national percentages for persons under 65 years of age: United States, 2004–2006

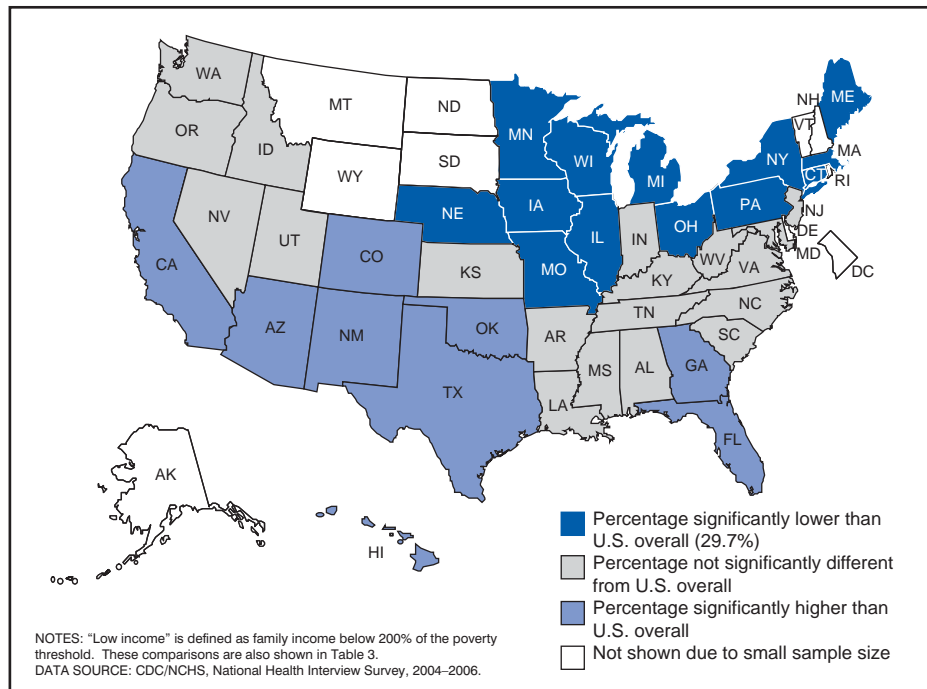


Figure 2. Uninsured at the time of interview—Comparisons of state and national percentages for low income persons under 65 years of age: United States, 2004–2006

- **Uninsured rates for low-income persons under age 65 varied by about 30 percentage points among the states.**

In every state, persons under age 65 with low income (less than 200% of the poverty level) were much more likely to be uninsured than those with higher income (200% or more of the poverty level) (Table 3). The percentage of low-income persons who were uninsured ranged from 14.1% to 44.5% among the states. This percentage was higher than the U.S. rate (29.7%) for eight states concentrated in the Southeast and Southwest, and lower than the U.S. rate for 14 states concentrated in the New England, Mideast, Great Lakes, and Plains regions (Figure 2, Table 3). The percentage of low income persons with no health insurance was less than one-half of the U.S. rate in Hawaii, Maine, and Massachusetts.

- **Uninsured rates for children varied by 15 percentage points among the states.**

The percentage of children who were uninsured varied from 3.7% to 18.7% among the states. Percentages were higher than the U.S. rate (9.3%) in four states and lower than the U.S. rate in 15 states concentrated in the New England, Mideast, Great Lakes, and Plains regions (Figure 3, Table 4).

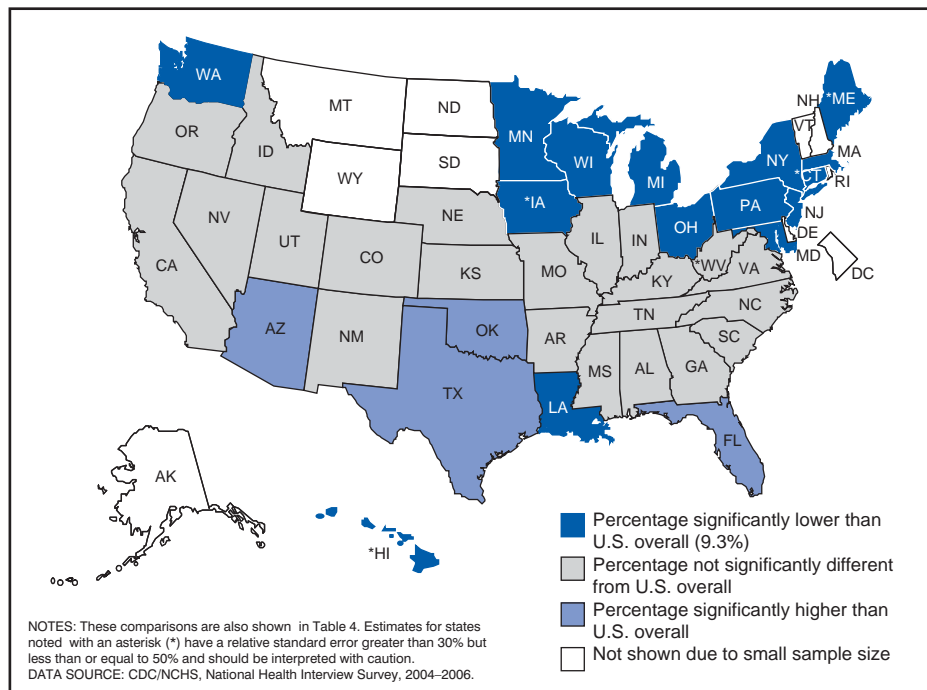


Figure 3. Uninsured at the time of interview—Comparisons of state and national percentages for children under 18 years of age: United States, 2004–2006

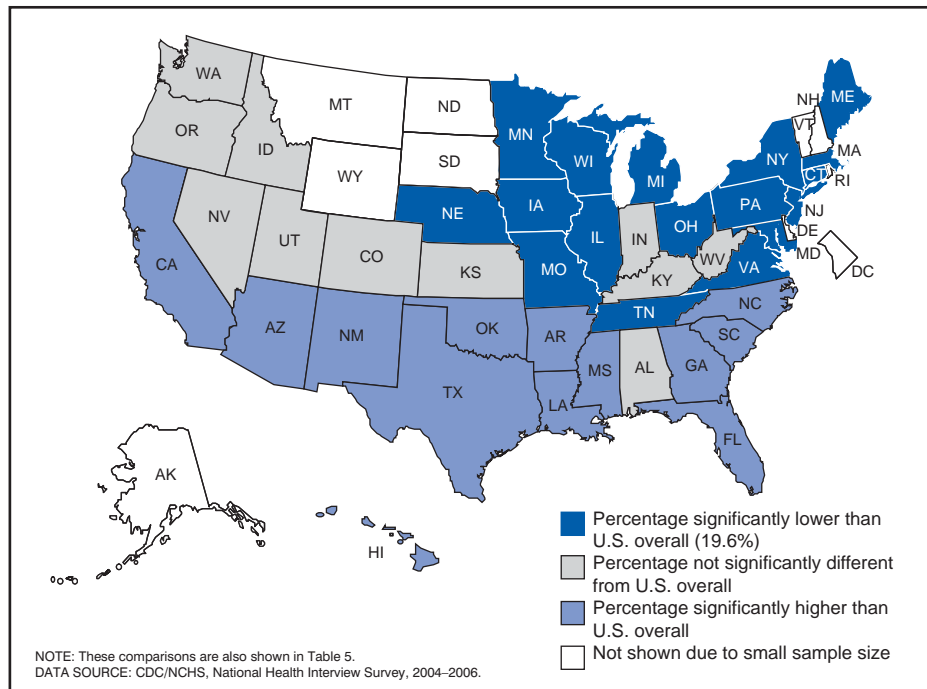


Figure 4. Uninsured at the time of interview—Comparisons of state and national percentages for adults 18–64 years of age: United States, 2004–2006

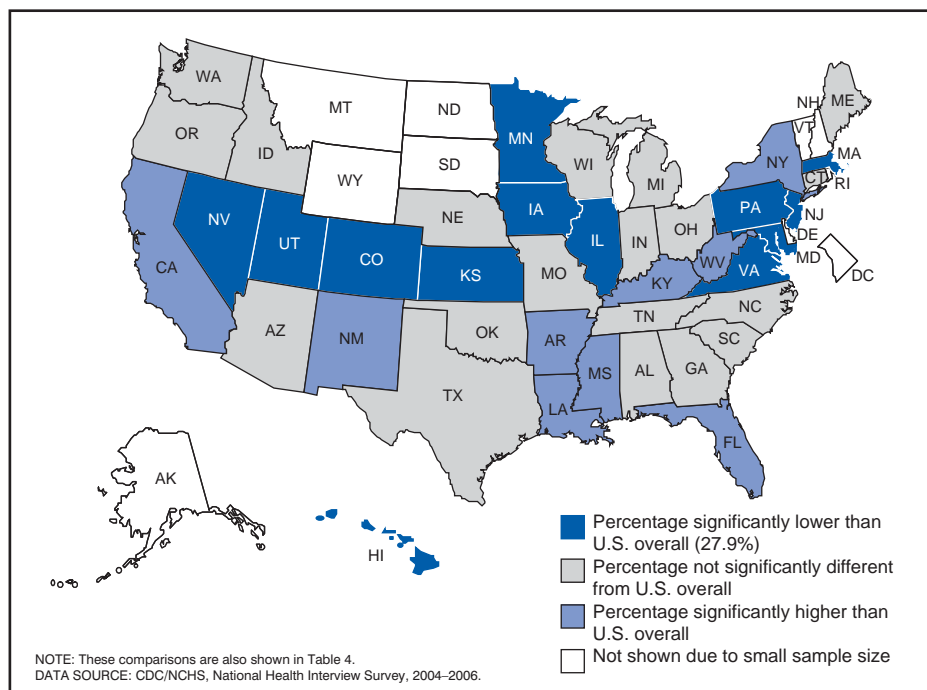


Figure 5. Medicaid or SCHIP coverage at the time of interview—Comparisons of state and national percentages for children under 18 years of age: United States, 2004–2006

● **Uninsured rates for adults varied by about 23 percentage points among the states.**

The percentage of adults who were uninsured ranged from 9.5% to 32.7% among the states. In 12 states concentrated in the Southwest and Southeast regions, the percentage of adults who were uninsured was higher than the U.S. rate (19.6%). In 18 states concentrated in the New England, Mideast, Great Lakes, and Plains regions, the percentage of uninsured was lower than the U.S. rate (Figure 4, Table 5).

State estimates of Medicaid or SCHIP coverage

● **Medicaid or SCHIP coverage rates for children varied by about 31 percentage points among the states.**

Medicaid or SCHIP coverage rates for children ranged from 14.6% to 45.5%. In nine states, the percentage of children with Medicaid or SCHIP coverage was higher than the U.S. rate (27.9%); six of these states are in the Southeast (Figure 5, Table 4). Among the nine states with higher-than-average Medicaid or SCHIP coverage for children, two were lower than the U.S. rate on the percentage uninsured (New York and Louisiana), and one was higher than the U.S. rate on the percentage uninsured (Florida).

In 13 states, the percentage of children with Medicaid or SCHIP coverage was lower than the U.S. rate (27.9%). Despite having lower-than-average Medicaid or SCHIP coverage, in seven of these states the percentage of children who were uninsured was lower than the U.S. rate (9.3%). States that were lower than average on both Medicaid or SCHIP coverage and uninsured rates for children were in the Mideast and Plains regions.

The percentage of adults with Medicaid or SCHIP coverage varied from 3.5% to 17.5% among the states (Table 5). States that had higher Medicaid or SCHIP coverage rates for adults than in the United States

overall (7.2%) include Maine, New York, Tennessee, Massachusetts, Arizona, and California. In four of these states (Maine, New York, Massachusetts, and Tennessee), the percentage of adults who were uninsured was lower than in the United States overall, and in two of these states (Arizona and California) the percentage uninsured was higher than in the United States overall.

State estimates of private insurance coverage

- The percentage of persons under age 65 with private insurance coverage varied by 28 percentage points among the states.

The percentage of persons under age 65 with private coverage ranged from 53.3% to 81.5% among the states (Table 6). In 15 states the percentage with private coverage was higher than in the United States overall (67.8%). These states were concentrated in the Plains, Great Lakes, Mideast, and New England regions. In 11 states concentrated in the Southwest and Southeast, private coverage rates were lower than in the United States overall.

With a few exceptions, the same states had higher private coverage rates than in the United States overall for all persons under age 65, for children, and for adults. Similarly, with a few exceptions, the same states had lower private coverage rates than in the United States overall for all persons under age 65, for children, and for adults (Figures 6, 7, and Tables 4–6).

- Almost all states that were higher than the U.S. rate on the percentage uninsured were lower than the U.S. rate on the percentage with private coverage.

In 8 of the 9 states with an uninsured rate for persons under age 65 that was higher than the U.S. rate, the percentage with private coverage was lower than the U.S. rate. Similarly, in 14 of the 18 states with an uninsured rate that was lower than

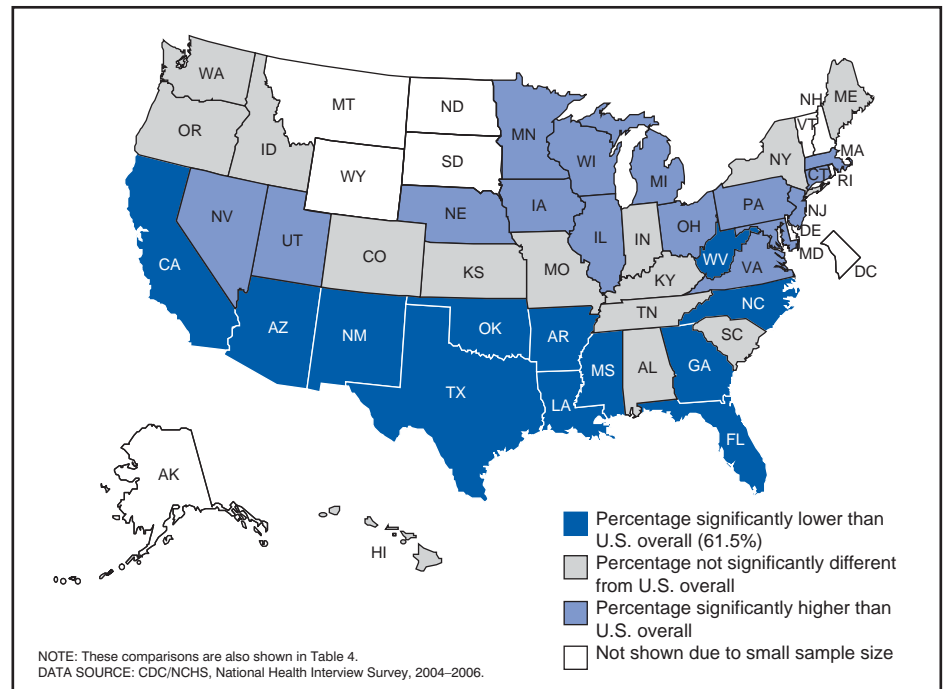


Figure 6. Private health insurance coverage at the time of interview—Comparisons of state and national percentages for children under 18 years of age: United States, 2004–2006

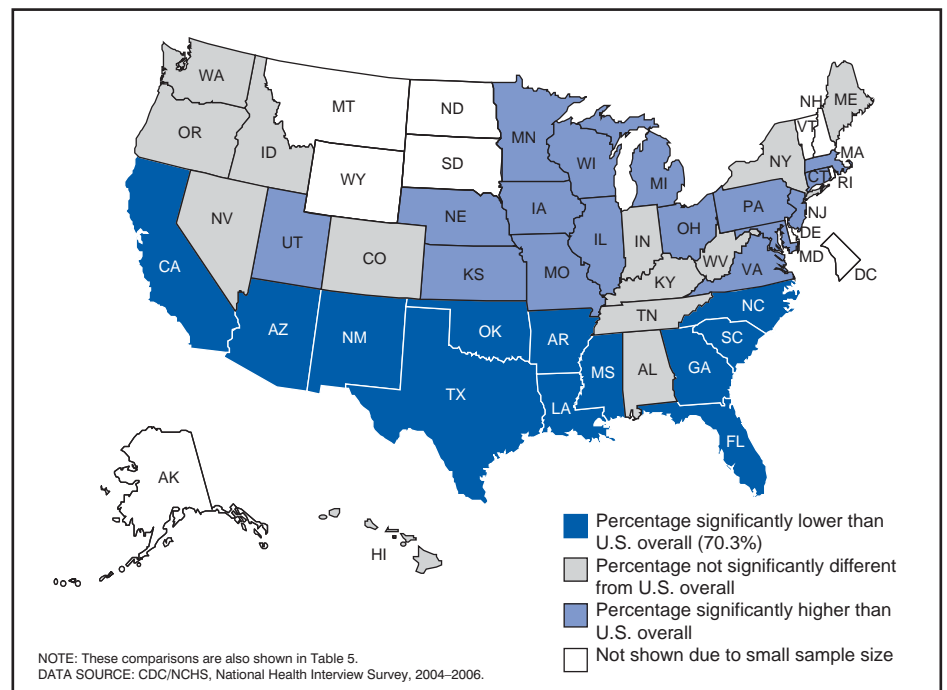


Figure 7. Private health insurance coverage at the time of interview—Comparisons of state and national percentages for adults 18–64 years of age: United States, 2004–2006

the U.S. rate, the percentage with private coverage was higher than the U.S. rate (Table 6).

References

- Institute of Medicine (U.S.). Coverage matters: insurance and health care. Washington, DC: National Academy Press; 2001.
- Blewett LA, Davern M. Meeting the need for state-level estimates of health insurance coverage: use of state and federal survey data. *Health Services Research* 41:3, Part I, 946–75. June 2006.
- National Center for Health Statistics. Health, United States, 2007 with chartbook on trends in the health of Americans. Hyattsville, MD: 2007.
- Cohen RA, Martinez ME. Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2006. June 2007. Available from: <http://www.cdc.gov/nchs/nhis.htm>.
- Schenker N, Raghunathan TE, Chiu P, Makuc DM, Zhang G, Cohen AJ. Multiple imputation of family income and personal earnings in the National Health Interview Survey: methods and examples. August 2007. Available from: <http://www.cdc.gov/nchs/data/nhis/tecdoc2.pdf>.
- National Center for Health Statistics. 2004 National Health Interview Survey (NHIS). Public-Use Data Release. NHIS Survey Description Document. National Center for Health Statistics. 2005. Available from: <http://www.cdc.gov/nchs/data/nhis/srvydesc.pdf>.
- National Center for Health Statistics. 2005 National Health Interview Survey (NHIS). Public-Use Data Release. NHIS Survey Description Document. National Center for Health Statistics. 2006. Available from: ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2005/srvydesc.pdf.
- National Center for Health Statistics. 2006 National Health Interview Survey (NHIS). Public-Use Data Release. NHIS Survey Description Document. National Center for Health Statistics. 2007. Available from: ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2006/srvydesc.pdf.
- Botman SL, Moore TF, Moriarity CL, Parsons VL. Design and estimation for the National Health Interview Survey, 1995–2004. *National Center for Health Statistics. Vital Health Stat* 2(130). 2000.
- Cohen RA, Martinez ME. Impact of Medicare and Medicaid probe questions on health insurance estimates from the National Health Interview Survey, 2004. *Health E-stats*. Hyattsville, MD. National Center for Health Statistics 2005. Available from: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/impact04/impact04.htm>.
- Cohen RA, Martinez ME. Impact of Medicare and Medicaid probe questions on health insurance estimates from the National Health Interview Survey, 2005. *Health E-stats*. Hyattsville, MD. National Center for Health Statistics 2006. Available from: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/impact05/impact.htm>.
- DeNavas-Walt C, Proctor B, Lee C. Income, poverty, and health insurance coverage in the United States: 2004. *Current population reports*, P60–229. U.S. Census Bureau. Washington. 2005.
- DeNavas-Walt C, Proctor B, Lee C. Income, poverty, and health insurance coverage in the United States: 2005. *Current population reports*, P60–231. U.S. Census Bureau. Washington. 2006.
- DeNavas-Walt, Proctor B, Smith J. Income, poverty, and health insurance coverage in the United States: 2006. *Current population reports*, P60–233. U.S. Census Bureau. Washington. 2007.
- Office of the Assistant Secretary for Planning and Evaluation. Understanding estimates of the uninsured: putting the differences in context. *ASPE Issue Brief*. DHHS. September 2005. Available from: <http://aspe.hhs.gov/health/reports/05/uninsured-understanding-ib/index.htm>.
- Davern M, Rodin H, Blewett L, Thiede Call K. 2007. Are the Current Population Survey uninsurance estimates too high? An examination of the imputation process. *Health Services Research* 42(5): 2038–54.
- Fronstin P. 2000. Counting the uninsured: A comparison of national surveys. *EBRI Issue Brief* No. 225.
- Kaiser Commission on Medicaid and the Uninsured. Who are the uninsured? A consistent profile across national surveys. *Issue Paper*. August 2006.
- Long SK, Graves JA, Zuckerman S. Assessing the value of the NHIS for studying changes in state coverage policies: the case of New York. *Health Services Research* 46(2) Part II: 2332–53. 2007.

Table 1. Percentage of persons under 65 years of age who were uninsured, covered by private health insurance, or covered by Medicaid or SCHIP at the time of interview, by age group and region: United States, 2004–2006

Age group and region ¹	Sample size	Uninsured ² at the time of interview	Insurance coverage type	
			Private	Medicaid or SCHIP
Percent (standard error)				
Under 65 years of age				
United States	237,500	16.6 (0.16)	67.8 (0.27)	13.2 (0.17)
Far West	46,481	18.2 (0.38)	64.7 (0.59)	14.7 (0.38)
Rocky Mountain	8,061	17.7 (1.00)	69.8 (1.64)	9.5 (0.84)
Southwest	33,108	26.3 (0.56)	57.7 (0.79)	12.8 (0.41)
Plains	15,271	12.3 (0.48)	75.9 (0.90)	10.4 (0.63)
Great Lakes	35,216	12.6 (0.33)	73.5 (0.64)	12.9 (0.44)
Southeast	54,109	19.1 (0.37)	63.3 (0.64)	13.3 (0.34)
Mideast	35,300	12.2 (0.33)	72.7 (0.59)	13.6 (0.46)
New England	9,954	8.9 (0.50)	75.3 (1.13)	14.1 (0.87)
Under 18 years of age				
United States	73,878	9.3 (0.19)	61.5 (0.41)	27.9 (0.36)
Far West	15,235	9.9 (0.44)	59.0 (0.90)	29.7 (0.78)
Rocky Mountain	2,628	11.6 (1.15)	65.1 (2.43)	20.7 (1.83)
Southwest	11,190	18.2 (0.68)	50.3 (1.08)	29.8 (0.92)
Plains	4,686	7.4 (0.56)	71.7 (1.44)	21.4 (1.45)
Great Lakes	10,758	6.2 (0.38)	68.1 (0.97)	26.5 (0.89)
Southeast	15,927	10.1 (0.43)	55.4 (0.95)	31.3 (0.79)
Mideast	10,478	5.7 (0.40)	67.6 (0.97)	26.1 (0.89)
New England	2,976	3.7 (0.52)	70.2 (1.94)	25.5 (1.65)
18–64 years of age				
United States	163,622	19.6 (0.18)	70.3 (0.24)	7.2 (0.11)
Far West	31,246	21.7 (0.43)	67.1 (0.55)	8.4 (0.25)
Rocky Mountain	5,433	20.4 (1.13)	71.9 (1.44)	4.5 (0.48)
Southwest	21,918	29.9 (0.65)	61.0 (0.74)	5.3 (0.24)
Plains	10,585	14.3 (0.55)	77.6 (0.81)	5.9 (0.37)
Great Lakes	24,458	15.2 (0.39)	75.7 (0.57)	7.5 (0.30)
Southeast	38,182	22.6 (0.42)	66.4 (0.56)	6.4 (0.23)
Mideast	24,822	14.7 (0.37)	74.7 (0.52)	8.8 (0.33)
New England	6,978	11.0 (0.57)	77.2 (0.93)	9.7 (0.64)

■ Percentage significantly lower than United States overall at 0.05 level.

□ Percentage not significantly different than United States overall at 0.05 level.

■ Percentage significantly higher than United States overall at 0.05 level.

¹Data are shown for Bureau of Economic Analysis (BEA) regions that are constructed to show economically interdependent states. See "Technical Notes" for more information.

²A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

NOTE: Percentages do not add to 100 because the percentage with Medicare, military, or other government-sponsored health plans is not shown. In addition, a small percentage of persons reported both private coverage and Medicaid or SCHIP coverage and are included in both of the last two columns.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Table 2. Percentage of persons under 65 years of age who were uninsured at the time of interview, for at least part of the year, or for more than a year, by selected states: United States, 2004–2006

State	Sample size	Uninsured ¹ at the time of interview		Uninsured ¹ for at least part of the past year ²		Uninsured ¹ for more than a year ²	
		Percent (standard error)					
United States ³	237,500	16.6 (0.16)		20.5 (0.18)		11.5 (0.13)	
Alabama	3,643	16.5 (1.25)		20.5 (1.36)		10.3 (1.00)	
Arizona	5,043	22.7 (1.19)		27.6 (1.28)		16.7 (1.04)	
Arkansas	2,068	21.4 (1.82)		25.5 (1.94)		15.3 (1.58)	
California	35,563	19.1 (0.43)		22.1 (0.44)		14.4 (0.38)	
Colorado	3,850	17.9 (1.24)		22.8 (1.37)		12.8 (1.07)	
Connecticut	2,685	10.7 (1.20)		12.9 (1.31)		7.1 (0.99)	
Florida	14,388	23.7 (0.72)		27.5 (0.80)		18.0 (0.61)	
Georgia	6,029	20.8 (1.06)		22.7 (1.10)		14.7 (0.91)	
Hawaii	1,116	7.8 (1.64)		10.4 (1.87)		5.4 (1.36)	
Idaho	1,248	18.4 (2.21)		23.8 (2.44)		13.4 (1.90)	
Illinois	10,429	13.7 (0.60)		17.2 (0.69)		9.2 (0.46)	
Indiana	4,957	17.3 (1.08)		22.2 (1.19)		12.3 (0.92)	
Iowa	2,053	9.3 (1.29)		12.4 (1.48)		5.8 (1.02)	
Kansas	2,394	16.5 (1.53)		21.0 (1.68)		9.7 (1.20)	
Kentucky	2,977	17.5 (1.40)		21.4 (1.52)		12.3 (1.19)	
Louisiana	3,478	18.9 (1.34)		22.4 (1.43)		14.4 (1.18)	
Maine	978	10.1 (1.93)		15.9 (2.37)		5.6 (1.44)	
Maryland	4,181	12.2 (1.02)		15.4 (1.13)		7.6 (0.82)	
Massachusetts	4,527	7.8 (0.81)		10.8 (0.94)		4.2 (0.59)	
Michigan	7,410	11.2 (0.68)		16.0 (0.90)		6.7 (0.44)	
Minnesota	4,161	10.4 (0.96)		15.4 (1.14)		5.7 (0.71)	
Mississippi	1,687	19.4 (1.94)		22.2 (2.05)		13.7 (1.65)	
Missouri	4,455	13.5 (1.03)		16.7 (1.13)		8.4 (0.83)	
Nebraska	1,514	12.4 (1.70)		15.6 (1.88)		7.6 (1.34)	
Nevada	1,927	20.0 (1.84)		23.4 (1.95)		13.0 (1.52)	
New Jersey	6,791	13.7 (0.90)		16.5 (0.97)		9.4 (0.74)	
New Mexico	1,929	24.8 (1.98)		27.8 (2.06)		17.6 (1.73)	
New York	14,751	12.3 (0.50)		16.5 (0.56)		8.1 (0.38)	
North Carolina	6,148	18.8 (1.25)		21.8 (1.24)		13.5 (1.07)	
Ohio	8,152	11.0 (0.55)		15.8 (0.62)		7.2 (0.49)	
Oklahoma	2,861	28.2 (1.70)		31.5 (1.76)		17.4 (1.45)	
Oregon	2,593	18.6 (1.54)		24.2 (1.70)		13.5 (1.33)	
Pennsylvania	8,529	11.3 (0.67)		15.0 (0.82)		7.2 (0.68)	
South Carolina	2,846	19.8 (1.50)		21.9 (1.57)		13.4 (1.26)	
Tennessee	3,868	14.8 (1.15)		18.8 (1.27)		9.6 (0.94)	
Texas	23,275	26.9 (0.69)		31.9 (0.68)		20.4 (0.62)	
Utah	1,995	15.8 (1.64)		23.0 (1.91)		9.5 (1.30)	
Virginia	5,913	12.8 (0.88)		16.6 (0.98)		8.3 (0.71)	
Washington	4,960	14.5 (1.01)		20.2 (1.16)		9.0 (0.81)	
West Virginia	1,064	19.6 (2.45)		25.4 (2.71)		15.0 (2.17)	
Wisconsin	4,268	10.2 (0.94)		13.1 (1.05)		6.4 (0.74)	

■ Percentage significantly lower than United States overall at 0.05 level.

■ Percentage not significantly different than United States overall at 0.05 level.

■ Percentage significantly higher than United States overall at 0.05 level.

¹A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

²A year is defined as the 12 months prior to interview.

³Also includes the following states that were excluded from the rest of the table due to small sample sizes: Alaska, Delaware, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. The District of Columbia was also included in estimates for the United States.

NOTE: Due to limitations in the National Health Interview Survey design, standard errors of estimates for some states could be unstable or negatively biased. For all but the 10 states with the largest sample sizes, standard errors were calculated using a design effect that was calculated for each domain and variable. See "[Technical Notes](#)" for more information on the estimation of standard errors, and see Table II for the design effects used for each domain and variable.


DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Table 3. Percentage of persons under 65 years of age who were uninsured at the time of interview, by percent of poverty level and by selected states: United States, 2004–2006

State	Sample size	Percent of poverty level ¹	
		Below 200%	200% or more
		Percent uninsured ² (standard error)	
United States ³	237,500	29.7 (0.31)	10.4 (0.14)
Alabama	3,643	29.6 (2.22)	7.4 (1.05)
Arizona	5,043	35.5 (1.96)	15.1 (1.22)
Arkansas	2,068	35.5 (3.19)	12.1 (1.69)
California	35,563	32.4 (0.77)	11.7 (0.39)
Colorado	3,850	36.5 (2.70)	11.4 (1.11)
Connecticut	2,685	19.9 (3.05)	8.2 (1.10)
Florida	14,388	37.1 (1.26)	16.5 (0.71)
Georgia	6,029	36.9 (2.03)	13.0 (0.98)
Hawaii	1,116	14.1 (3.68)	5.3 (1.46)
Idaho	1,248	27.5 (3.71)	12.8 (2.27)
Illinois	10,429	26.5 (1.49)	8.7 (0.64)
Indiana	4,957	30.4 (2.18)	10.6 (0.97)
Iowa	2,053	20.5 (3.29)	4.9 (1.01)
Kansas	2,394	32.7 (2.99)	8.1 (1.28)
Kentucky	2,977	26.6 (2.40)	10.8 (1.36)
Louisiana	3,478	29.7 (2.27)	11.1 (1.29)
Maine	978	14.2 (3.88)	8.1 (1.89)
Maryland	4,181	30.5 (3.06)	8.0 (0.85)
Massachusetts	4,527	14.4 (1.86)	5.7 (0.75)
Michigan	7,410	19.0 (1.34)	8.1 (0.57)
Minnesota	4,161	22.0 (2.60)	7.2 (0.82)
Mississippi	1,687	32.2 (3.40)	10.9 (1.80)
Missouri	4,455	24.7 (2.24)	8.4 (0.90)
Nebraska	1,514	22.2 (3.65)	8.0 (1.52)
Nevada	1,927	35.1 (3.59)	13.4 (1.73)
New Jersey	6,791	32.5 (2.21)	9.0 (0.77)
New Mexico	1,929	36.9 (3.06)	15.5 (2.07)
New York	14,751	19.7 (1.10)	8.8 (0.46)
North Carolina	6,148	31.1 (1.72)	11.8 (1.14)
Ohio	8,152	20.1 (1.19)	6.7 (0.58)
Oklahoma	2,861	40.5 (2.61)	17.6 (1.77)
Oregon	2,593	28.9 (2.84)	13.0 (1.50)
Pennsylvania	8,529	21.0 (1.88)	7.3 (0.53)
South Carolina	2,846	32.5 (2.70)	12.3 (1.43)
Tennessee	3,868	28.2 (2.31)	7.3 (0.95)
Texas	23,275	44.5 (1.08)	15.9 (0.72)
Utah	1,995	31.5 (3.50)	8.9 (1.40)
Virginia	5,913	26.2 (2.09)	7.8 (0.74)
Washington	4,960	27.4 (2.22)	9.5 (0.90)
West Virginia	1,064	28.4 (3.94)	11.3 (2.40)
Wisconsin	4,268	19.5 (2.19)	6.9 (0.83)

■ Percentage significantly lower than United States overall at 0.05 level.

□ Percentage not significantly different than United States overall at 0.05 level.

 Percentage significantly higher than United States overall at 0.05 level.

¹Percent of poverty level is based on family income and family size using the U.S. Census Bureau's poverty thresholds. Missing family income data were imputed for 29%–32% of respondents in 2004–2006.

²A person was defined as uninsured at the time of interview if he or she did not have any private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

³Also includes the following states that were excluded from the rest of the table due to small sample sizes: Alaska, Delaware, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. The District of Columbia was also included in the estimates for the United States.

NOTE: Due to limitations in the National Health Interview Survey design, standard errors of estimates in some states could be unstable or negatively biased. For all but the 10 states with the largest sample sizes, standard errors were calculated using a design effect that was calculated for each domain and variable. See "[Technical Notes](#)" for more information on the estimation of standard errors, and see Table II for the design effects used for each domain and variable.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Table 4. Percentage of children under 18 years of age who were uninsured, covered by private health insurance, or covered by Medicaid or SCHIP at the time of interview, by selected states: United States, 2004–2006

State	Sample size	Uninsured ¹ at the time of interview	Insurance coverage type			
			Private		Medicaid or SCHIP	
			Percent (standard error)			
United States ²	73,878	9.3 (0.19)	61.5 (0.41)	27.9 (0.36)		
Alabama	1,060	9.1 (1.50)	57.4 (3.45)	32.1 (2.96)		
Arizona	1,651	17.3 (1.58)	52.6 (2.57)	28.4 (2.28)		
Arkansas	639	8.0 (1.82)	51.6 (4.04)	38.8 (3.97)		
California	11,786	10.2 (0.48)	56.2 (1.02)	32.4 (0.91)		
Colorado	1,144	11.6 (1.60)	66.0 (3.71)	19.0 (2.38)		
Connecticut	782	*3.8 (1.16)	71.4 (3.30)	24.6 (3.16)		
Florida	4,303	15.1 (0.98)	52.2 (1.71)	30.8 (1.28)		
Georgia	1,737	10.4 (1.25)	54.0 (2.41)	32.2 (2.31)		
Hawaii	327	*3.9 (1.82)	69.8 (6.70)	18.7 (4.46)		
Idaho	490	10.8 (2.37)	61.5 (5.68)	26.9 (4.11)		
Illinois	3,303	7.8 (0.81)	67.5 (1.54)	24.1 (1.33)		
Indiana	1,508	8.5 (1.21)	63.8 (2.92)	29.4 (2.41)		
Iowa	597	*3.7 (1.32)	78.2 (4.16)	19.8 (3.36)		
Kansas	817	11.3 (1.87)	67.1 (3.45)	21.1 (2.93)		
Kentucky	847	8.0 (1.58)	57.8 (3.46)	35.3 (3.37)		
Louisiana	1,083	3.9 (1.00)	49.6 (2.44)	45.5 (3.11)		
Maine	274	*4.9 (2.19)	51.9 (11.7)	39.2 (6.05)		
Maryland	1,251	6.4 (1.17)	71.5 (2.43)	18.9 (2.28)		
Massachusetts	1,414	3.7 (0.85)	73.5 (2.40)	22.6 (2.29)		
Michigan	2,294	4.5 (0.63)	67.4 (2.07)	29.7 (2.01)		
Minnesota	1,276	6.8 (1.19)	75.8 (2.09)	17.9 (2.21)		
Mississippi	504	7.0 (1.92)	48.3 (4.21)	42.8 (4.52)		
Missouri	1,347	7.6 (1.22)	65.8 (3.06)	27.1 (2.49)		
Nebraska	464	8.3 (2.16)	70.0 (4.10)	22.4 (3.97)		
Nevada	626	12.4 (2.24)	71.7 (3.58)	16.8 (3.08)		
New Jersey	2,117	6.5 (0.85)	74.5 (2.01)	18.6 (1.72)		
New Mexico	573	12.4 (2.33)	42.2 (3.66)	44.1 (4.25)		
New York	4,350	4.7 (0.47)	61.3 (1.63)	33.6 (1.67)		
North Carolina	1,859	9.7 (1.11)	52.5 (4.03)	29.9 (2.50)		
Ohio	2,413	4.8 (0.67)	70.0 (1.98)	26.0 (1.89)		
Oklahoma	936	18.3 (2.14)	48.4 (3.20)	30.8 (3.11)		
Oregon	822	9.2 (1.71)	65.2 (3.60)	25.0 (3.10)		
Pennsylvania	2,471	6.0 (1.01)	70.1 (2.00)	24.7 (1.59)		
South Carolina	821	10.5 (1.81)	56.4 (4.76)	30.3 (3.29)		
Tennessee	1,075	8.4 (1.44)	60.4 (4.68)	29.7 (2.86)		
Texas	8,030	18.7 (0.83)	50.6 (1.33)	29.1 (1.07)		
Utah	702	12.3 (2.10)	72.7 (3.91)	14.9 (2.76)		
Virginia	1,737	8.6 (1.14)	68.1 (1.97)	14.6 (1.74)		
Washington	1,587	7.1 (1.09)	63.5 (2.61)	26.8 (2.29)		
West Virginia	262	*7.7 (2.80)	49.1 (6.30)	43.1 (6.28)		
Wisconsin	1,240	5.7 (1.12)	72.0 (2.84)	23.3 (2.47)		

* Estimates preceded by an asterisk have a relative standard error greater than 30% and less than or equal to 50% and should be used with caution as they do not meet the standards of reliability or precision.

■ Percentage significantly lower than United States overall at 0.05 level.

□ Percentage not significantly different than United States overall at 0.05 level.

■ Percentage significantly higher than United States overall at 0.05 level.

¹A person was defined as uninsured at the time of interview if he or she did not have any private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

²Also includes the following states that were excluded from the rest of the table due to small sample sizes: Alaska, Delaware, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. The District of Columbia was also included in the estimates for the United States.

NOTES: Due to limitations in the National Health Interview Survey design, standard errors of estimates in some states could be unstable or negatively biased. For all but the 10 states with the largest sample sizes, standard errors were calculated using a design effect that was calculated for each domain and variable. See "[Technical Notes](#)" for more information on the estimation of standard errors, and see Table II for the design effects used for each domain and variable. Percentages do not add to 100 because the percentage with Medicare, military, or other government-sponsored health plans is not shown. In addition, a small percentage of persons reported both private coverage and Medicaid or SCHIP coverage and are included in both of the last two columns.


DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Table 5. Percentage of persons 18–64 years of age who were uninsured, covered by private health insurance, or covered by Medicaid or SCHIP at the time of interview, by selected states: United States, 2004–2006

State	Sample size	Uninsured ¹ at the time of interview	Insurance coverage type			
			Private		Medicaid or SCHIP	
			Percent (standard error)			
United States ²	163,622	19.6 (0.18)	70.3 (0.24)	7.2 (0.11)		
Alabama	2,583	19.4 (1.39)	69.1 (2.13)	7.0 (0.81)		
Arizona	3,392	25.0 (1.32)	61.1 (1.49)	10.3 (0.84)		
Arkansas	1,429	26.9 (2.09)	65.2 (1.88)	4.3 (0.86)		
California	23,777	22.7 (0.50)	65.9 (0.64)	9.1 (0.31)		
Colorado	2,706	20.3 (1.37)	72.7 (2.10)	3.7 (0.58)		
Connecticut	1,903	13.3 (1.39)	78.0 (1.88)	7.5 (0.97)		
Florida	10,085	27.1 (0.75)	62.5 (0.90)	5.7 (0.31)		
Georgia	4,292	24.7 (1.18)	65.5 (1.59)	4.9 (0.53)		
Hawaii	789	9.5 (1.87)	76.9 (4.20)	7.5 (1.52)		
Idaho	758	22.7 (2.69)	69.2 (1.48)	5.1 (1.28)		
Illinois	7,126	16.1 (0.68)	75.3 (1.11)	6.8 (0.61)		
Indiana	3,449	20.8 (1.23)	71.1 (1.52)	5.9 (0.64)		
Iowa	1,456	11.4 (1.48)	82.7 (2.44)	4.6 (0.88)		
Kansas	1,577	19.0 (1.75)	75.4 (2.31)	3.5 (0.74)		
Kentucky	2,130	21.0 (1.57)	68.0 (2.23)	8.3 (0.96)		
Louisiana	2,395	25.2 (1.58)	64.7 (1.59)	6.8 (0.83)		
Maine	704	12.0 (2.17)	65.0 (4.05)	17.5 (2.29)		
Maryland	2,930	14.5 (1.16)	79.4 (1.31)	3.8 (0.57)		
Massachusetts	3,113	9.5 (0.93)	79.4 (1.25)	10.1 (0.87)		
Michigan	5,116	14.1 (0.86)	76.7 (1.22)	8.2 (0.62)		
Minnesota	2,885	11.9 (1.07)	79.6 (1.21)	7.5 (0.79)		
Mississippi	1,183	24.3 (2.21)	63.8 (3.19)	6.4 (1.14)		
Missouri	3,108	16.0 (1.17)	73.8 (1.63)	7.3 (0.75)		
Nebraska	1,050	14.1 (1.90)	79.1 (2.20)	4.2 (0.99)		
Nevada	1,301	23.3 (2.08)	69.2 (2.56)	3.9 (0.86)		
New Jersey	4,674	16.6 (1.03)	77.2 (1.25)	5.3 (0.48)		
New Mexico	1,356	29.2 (2.19)	57.2 (2.15)	8.7 (1.22)		
New York	10,401	15.1 (0.60)	70.1 (0.94)	13.1 (0.69)		
North Carolina	4,289	22.5 (1.38)	66.2 (2.00)	6.4 (0.45)		
Ohio	5,739	13.5 (0.66)	76.5 (1.10)	8.4 (0.65)		
Oklahoma	1,925	32.7 (1.90)	57.1 (2.40)	4.5 (0.76)		
Oregon	1,771	22.7 (1.77)	66.8 (1.92)	7.7 (1.02)		
Pennsylvania	6,058	13.2 (0.67)	77.4 (0.93)	7.5 (0.54)		
South Carolina	2,025	23.3 (1.67)	64.4 (2.67)	7.0 (0.91)		
Tennessee	2,793	17.0 (1.26)	68.6 (3.03)	11.2 (0.96)		
Texas	15,245	30.6 (0.81)	61.9 (0.92)	4.0 (0.20)		
Utah	1,293	17.5 (1.87)	76.8 (3.01)	4.1 (0.88)		
Virginia	4,176	14.4 (0.97)	75.0 (1.42)	4.5 (0.52)		
Washington	3,373	17.5 (1.16)	70.9 (1.60)	7.4 (0.72)		
West Virginia	802	23.3 (2.65)	64.1 (4.35)	7.8 (1.52)		
Wisconsin	3,028	11.9 (1.05)	78.5 (1.46)	8.1 (0.80)		

■ Percentage significantly lower than United States overall at 0.05 level.

□ Percentage not significantly different than United States overall at 0.05 level.

 Percentage significantly higher than United States overall at 0.05 level.

¹A person was defined as uninsured at the time of interview if he or she did not have any private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

²Also includes the following states that were excluded from the rest of the table due to small sample sizes: Alaska, Delaware, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. The District of Columbia was also included in the estimates for the United States.

NOTES: Due to limitations in the National Health Interview Survey design, standard errors of estimates in some states could be unstable or negatively biased. For all but the 10 states with the largest sample sizes, standard errors were calculated using a design effect that was calculated for each domain and variable. See "[Technical Notes](#)" for more information on the estimation of standard errors, and see Table II for the design effects used for each domain and variable. Percentages do not add to 100 because the percentage with Medicare, military, or other government-sponsored health plans is not shown. In addition, a small percentage of persons reported both private coverage and Medicaid or SCHIP coverage and are included in both of the last two columns.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Table 6. Percentage of persons under 65 years of age who were uninsured, covered by private health insurance, or covered by Medicaid or SCHIP at the time of interview, by state: United States, 2004–2006

State	Sample size	Uninsured ¹ at the time of interview	Insurance coverage type			
			Private		Medicaid or SCHIP	
			Percent (standard error)			
United States ²	237,500	16.6 (0.16)	67.8 (0.27)	13.2 (0.17)		
Alabama	3,643	16.5 (1.25)	65.9 (2.37)	14.0 (1.34)		
Arizona	5,043	22.7 (1.19)	58.6 (1.69)	15.6 (1.19)		
Arkansas	2,068	21.4 (1.82)	61.3 (2.35)	14.3 (1.79)		
California	35,563	19.1 (0.43)	63.1 (0.69)	16.0 (0.46)		
Colorado	3,850	17.9 (1.24)	70.9 (2.42)	8.0 (1.01)		
Connecticut	2,685	10.7 (1.20)	76.1 (2.11)	12.2 (1.47)		
Florida	14,388	23.7 (0.72)	59.5 (1.04)	12.8 (0.55)		
Georgia	6,029	20.8 (1.06)	62.4 (1.65)	12.2 (0.98)		
Hawaii	1,116	7.8 (1.64)	74.8 (4.69)	10.8 (2.17)		
Idaho	1,248	18.4 (2.21)	66.4 (2.93)	12.9 (2.19)		
Illinois	10,429	13.7 (0.60)	73.1 (1.10)	11.7 (0.73)		
Indiana	4,957	17.3 (1.08)	69.0 (1.86)	12.6 (1.09)		
Iowa	2,053	9.3 (1.29)	81.5 (2.79)	8.8 (1.45)		
Kansas	2,394	16.5 (1.53)	72.8 (2.59)	9.1 (1.36)		
Kentucky	2,977	17.5 (1.40)	65.2 (2.51)	15.6 (1.54)		
Louisiana	3,478	18.9 (1.34)	60.2 (1.80)	18.4 (1.52)		
Maine	978	10.1 (1.93)	61.5 (6.06)	23.3 (3.13)		
Maryland	4,181	12.2 (1.02)	77.1 (1.46)	8.1 (0.98)		
Massachusetts	4,527	7.8 (0.81)	77.7 (1.44)	13.7 (1.19)		
Michigan	7,410	11.2 (0.68)	74.0 (1.40)	14.6 (1.03)		
Minnesota	4,161	10.4 (0.96)	78.5 (1.25)	10.5 (1.10)		
Mississippi	1,687	19.4 (1.94)	59.3 (3.31)	16.8 (2.11)		
Missouri	4,455	13.5 (1.03)	71.5 (1.82)	13.0 (1.17)		
Nebraska	1,514	12.4 (1.70)	76.5 (2.28)	9.4 (1.74)		
Nevada	1,927	20.0 (1.84)	70.0 (2.26)	7.8 (1.41)		
New Jersey	6,791	13.7 (0.90)	76.4 (1.38)	9.2 (0.77)		
New Mexico	1,929	24.8 (1.98)	53.3 (2.40)	18.0 (2.02)		
New York	14,751	12.3 (0.50)	67.7 (1.05)	18.7 (0.93)		
North Carolina	6,148	18.8 (1.25)	62.3 (2.54)	13.1 (0.99)		
Ohio	8,152	11.0 (0.55)	74.6 (1.27)	13.4 (0.91)		
Oklahoma	2,861	28.2 (1.70)	54.4 (2.51)	12.6 (1.44)		
Oregon	2,593	18.6 (1.54)	66.4 (2.27)	13.0 (1.53)		
Pennsylvania	8,529	11.3 (0.67)	75.4 (1.14)	12.2 (0.75)		
South Carolina	2,846	19.8 (1.50)	62.2 (3.05)	13.4 (1.48)		
Tennessee	3,868	14.8 (1.15)	66.5 (3.29)	16.0 (1.37)		
Texas	23,275	26.9 (0.69)	58.3 (0.98)	11.8 (0.45)		
Utah	1,995	15.8 (1.64)	75.5 (3.20)	7.6 (1.37)		
Virginia	5,913	12.8 (0.88)	73.0 (1.46)	7.4 (0.79)		
Washington	4,960	14.5 (1.01)	68.7 (1.77)	13.1 (1.11)		
West Virginia	1,064	19.6 (2.45)	60.6 (5.02)	16.2 (2.62)		
Wisconsin	4,268	10.2 (0.94)	76.7 (1.81)	12.2 (1.16)		

■ Percentage significantly lower than United States overall at 0.05 level.

■ Percentage not significantly different than United States overall at 0.05 level.

■ Percentage significantly higher than United States overall at 0.05 level.

¹A person was defined as uninsured at the time of interview if he or she did not have any private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

²Also includes the following states that were excluded from the rest of the table due to small sample sizes: Alaska, Delaware, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. The District of Columbia was also included in the estimates for the United States.

NOTES: Due to limitations in the National Health Interview Survey design, standard errors of estimates in some states could be unstable or negatively biased. For all but the 10 states with the largest sample sizes, standard errors were calculated using a design effect that was calculated for each domain and variable. See "[Technical Notes](#)" for more information on the estimation of standard errors, and see Table II for the design effects used for each domain and variable. Percentages do not add to 100 because the percentage with Medicare, military, or other government-sponsored health plans is not shown. In addition, a small percentage of persons reported both private coverage and Medicaid or SCHIP coverage and are included in both of the last two columns.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Technical Notes

Data source

The statistics in this report are based on data from the Family Core component of the 2004–2006 National Health Interview Survey (NHIS). NHIS is a multipurpose health survey conducted by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS).

NHIS is a multistage probability sample survey of the civilian noninstitutionalized population of the United States (6–8). It is conducted continuously throughout the year for NCHS by interviewers of the U.S. Census Bureau. Basic health and demographic information, including health insurance status, is collected in the family component for all members of the family. Information on basic health topics is collected for all household members, by a proxy from one family member if necessary (all members of the household 17 years of age and over who are home at the time of the interview are invited to participate and respond for themselves). Additional information on the health of one randomly selected adult (“the sample adult”) and child (“the sample child”) in the family is also obtained; those data are not used in this report. Interviews are conducted in the home using a computer-assisted personal interview (CAPI) questionnaire with telephone followup permitted if necessary.

The sample for the NHIS is redesigned and redrawn about every 10 years to better measure the changing U.S. population and to meet new survey objectives. A new sample design for the NHIS was implemented in 2006. The fundamental structure of the new design is very similar to the previous 1995–2005 NHIS sample design, including state-level stratification. The new sample design reduced the NHIS sample size by about 13% compared with the 1995–2005 NHIS. Oversampling of black and Hispanic populations has been retained in the new design to allow for more precise estimation of health

characteristics in these growing minority populations. The new sample design also oversamples the Asian population, and black, Hispanic, and Asian persons aged 65 years and older are given an increased probability of being selected as the sample adult. For a more complete discussion of the sampling designs and other analytic issues associated with 1995–2005 and 2006, see <http://www.cdc.gov/nchs/data/nhis/9705var.pdf> and <http://www.cdc.gov/nchs/data/nhis/2006var.pdf>.

Visit the NCHS website (<http://www.cdc.gov/nchs/nhis.htm>) for more information on the design, content, and use of NHIS.

Estimation procedures and significance testing

NCHS creates survey weights for each calendar quarter of the NHIS sample. The NHIS data weighting procedure has been described in more detail elsewhere (9). Estimates were calculated by using the NHIS survey weights, which are calibrated to census totals of the U.S. civilian noninstitutionalized population by sex, age, and race/ethnicity. Weights were derived from 2000 census-based population estimates.

Adjacent years of NHIS data may be combined for a pooled analysis. For this report, which spans two different design periods, 2004–2005 and 2006, new design variables were created and the different design periods were treated as statistically independent. For more information, see <http://www.cdc.gov/nchs/data/nhis/2006var.pdf>.

State-specific estimates are presented for 41 states. Nine states and the District of Columbia had 3-year combined samples of less than 1,000; they were excluded from all state-specific analyses because the sample size was too small to give reliable estimates when disaggregated by age and income (Table I). No state-specific estimates are presented for Alaska, Delaware, District of Columbia, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. Data from these states are included in regional and

national estimates. In addition, it should be noted that people who report coverage only through the Indian Health Service are counted as uninsured. This particularly affects estimates for states with large American Indian populations, such as Oklahoma, for which the Indian Health Service plays a significant role in providing health care. State identifiers are not available from the NHIS public-use files, but may be available through the NCHS Research Data Center. For more information, see <http://www.cdc.gov/nchs/r&d/rdc.htm>.

Point estimates and their standard errors were calculated using SUDAAN software to account for the complex sample design of NHIS. The Taylor series linearization method was chosen for estimation of standard errors for the 10 states with the largest sample sizes (California, Florida, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas). Due to smaller sample sizes and limitations in the NHIS design, estimated standard errors for other states could be unstable or negatively biased. For these states, an estimated design effect was used to calculate standard errors. For this report, the design effect is taken as the ratio of the true standard error of an estimated percentage (taking the complex sample design into account) to the standard error of the estimated percentage for a simple random sample (SRS) based on the same number of persons.

The average design effect for each health insurance measure and domain was estimated by averaging the design effects derived from the SUDAAN-based estimates of standard errors for the 10 largest states. For this report, standard errors for 31 states were estimated by multiplying the SRS standard error by the average design effect for each health insurance measure and domain. For a listing of the average design effects used in the standard error calculations, see Table II.

Estimates shown in the tables meet the NCHS standard of having a relative standard error less than or equal to 30% unless otherwise noted. Estimates with a relative standard error greater than 30% and less than or equal to 50% are preceded by an asterisk (*). Differences

Table I. Number of persons for whom family core information was collected in the National Health Interview Survey, for each state, the District of Columbia, and the United States: 2004–2006

State	Sample size
United States	267,878
Alabama	4,172
Alaska	350
Arizona	5,592
Arkansas	2,372
California	38,914
Colorado	4,179
Connecticut	3,071
Delaware	726
District of Columbia	472
Florida	16,918
Georgia	6,629
Hawaii	1,301
Idaho	1,370
Illinois	11,772
Indiana	5,608
Iowa	2,344
Kansas	2,661
Kentucky	3,373
Louisiana	3,926
Maine	1,161
Maryland	4,644
Massachusetts	5,132
Michigan	8,390
Minnesota	4,643
Mississippi	1,958
Missouri	5,102
Montana	767
Nebraska	1,719
Nevada	2,121
New Hampshire	761
New Jersey	7,773
New Mexico	2,225
New York	16,822
North Carolina	7,009
North Dakota	360
Ohio	9,483
Oklahoma	3,223
Oregon	2,967
Pennsylvania	9,924
Rhode Island	862
South Carolina	3,275
South Dakota	488
Tennessee	4,478
Texas	25,371
Utah	2,218
Vermont	434
Virginia	6,709
Washington	5,528
West Virginia	1,295
Wisconsin	4,913
Wyoming	373

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2004–2006.

between percentages or rates were evaluated using two-sided significance tests at the 0.05 level. The estimated standard error of the difference between state and national estimates accounted for nonindependence of state and national estimates by incorporating their

covariance (and similarly for the difference between regional and national estimates).

Terms such as “higher than” and “lower than” indicate a statistically significant difference. Terms such as “similar” and “no difference” indicate that the estimates being compared were not significantly different. Lack of comment regarding the difference between any two estimates does not necessarily mean that the difference was tested and found to be not significant. Furthermore, these tests did not take multiple comparisons into account.

Response rates

The family response rate for the NHIS data years 2004–2006 was 86.4%. Information was collected for 267,878 sample persons from interviews of 106,618 families from January 2004 through December 2006. Procedures used in calculating response rates for combined data years are described in detail in Appendix I of the Survey Description of NHIS data files (6–8).

Item nonresponse

In the tables, unknown values (responses coded as “refused,” “not ascertained,” or “don’t know”) were not counted in the denominators when calculating estimates. For the health insurance items used in this report, the item nonresponse rate was about 1%.

The health insurance estimates stratified by income level in this report are based on both reported and imputed income. NCHS imputes income for approximately 30% of NHIS person file records. Family income was missing for 29.6% of persons in 2004, 28.9% of persons in 2005, and 30.7% of persons in 2006. For survey years beginning in 1997, a new methodology has been implemented by NCHS for imputing family income (5); multiple imputation is performed to account for additional variability caused by imputation. A detailed description of the multiple imputation procedure, as well as data files for 1997 and beyond, is available from: www.cdc.gov/nchs/nhis.htm, via

the Imputed Income Files link under each year.

Definition of terms

Health insurance coverage—In the NHIS section on family health insurance, respondents are instructed to “include health insurance obtained through employment or purchased directly, as well as government programs like Medicare and Medicaid that provide medical care or help pay medical bills.” Respondents are asked about the kind of health insurance or health care coverage that each person in the family has at the time of the interview. In this report the “*private health insurance coverage*” category excludes plans that paid for only one type of service such as accidents or dental care. The “*Medicaid or SCHIP coverage*” category includes Medicaid, SCHIP and state-sponsored health plans. Medicaid covers both children and adults. Generally, SCHIP covers children 18 years of age and under; however, in a few states, SCHIP has been expanded to cover select portions of the adult population as well. Within federal guidelines, each state determines the design of its SCHIP program, eligibility groups, benefit packages, and payment levels for coverage. In 18 states, SCHIP is a separate State Child Health Plan. Ten states, including the District of Columbia, have expanded their Medicaid program to cover SCHIP-eligible persons. In 23 states, the SCHIP program is a combination of both Medicaid expansion and a separate State Child Health Plan. A small number of people were covered by both “Medicaid or SCHIP” and private plans and were included in both categories.

A person was defined as “*uninsured*” if he or she did not have any private health insurance, Medicare, Medicaid, SCHIP, state-sponsored or other government-sponsored health plan, or military plan at the time of the interview. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

Table II. Design effects used for standard error calculations of state estimates in Tables 2–6, except for the 10 states with the largest sample sizes

Table number and estimate	Average design effect based on 10 states with largest sample sizes ¹
Table 2	
(Estimates are for persons under 65 years of age)	
Uninsured at the time of interview	2.01
Uninsured for at least part of the past year	2.02
Uninsured for more than a year	1.96
Table 3	
(Estimates are for persons under 65 years of age)	
Uninsured at the time of interview for persons below 200% of the poverty level	1.95
Uninsured at the time of interview for persons at or above 200% of the poverty level	1.79
Table 4	
(Estimates are for children under 18 years of age)	
Uninsured at the time of interview	1.69
Private coverage at the time of interview	2.20
Medicaid or SCHIP coverage at the time of interview	2.05
Table 5	
(Estimates are for adults 18–64 years of age)	
Uninsured at the time of interview	1.77
Private coverage at the time of interview	2.01
Medicaid or SCHIP coverage at the time of interview	1.60
Table 6	
(Estimates are for persons under 65 years of age)	
Uninsured at the time of interview	2.01
Private coverage at the time of interview	2.63
Medicaid or SCHIP coverage at the time of interview	2.31

¹The states are California, Florida, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas. The design effect was defined as the ratio of the true standard error, taking the complex survey design into account, to the standard error for a simple random sample.

Two additional questions were added to the family health insurance section of NHIS beginning with quarter 3 of 2004. One question probed for Medicare coverage among persons aged 65 years and over who had not indicated that they had Medicare. Another question probed for Medicaid coverage among persons under 65 years of age who had not indicated any type of coverage. Additional information on the impact of these two probe questions on health insurance estimates are available (10,11). Respondents who originally classified themselves as uninsured, but whose classification was changed to Medicare or Medicaid on the basis of a “yes” response to either probe question, subsequently received appropriate followup questions concerning periods of noncoverage for insured respondents.

Respondents who were considered insured at the time of interview were

asked about periods of noncoverage in the past year. For people who did not have health insurance at the time of interview, a question concerning the length of time since the respondent had coverage was asked. These questions were used to estimate the percentage of persons who were *uninsured for at least part of the past year* and the percentage who were *uninsured for more than a year* provided in [Table 2](#). These measures and the percentage who were *uninsured at the time of interview* are not mutually exclusive, and a given individual may be counted in more than one of the three measures.

Low income—People who had family income below 200% of the poverty threshold are defined as having low income. This is based on the ratio of the family’s income in the previous calendar year to the appropriate poverty threshold (given the family’s size and

number of children) defined by the U.S. Census Bureau for that year (12–14). Those in the higher income category, family income at 200% or more of the poverty threshold had a ratio of 2.0 or higher.

Regions—The Department of Commerce’s Bureau of Economic Analysis (BEA) groups states into eight regions based on their homogeneity with respect to income characteristics, industrial composition of the employed labor force, and such noneconomic factors as demographic, social, and cultural characteristics. See [Figure I](#). The eight regions, as defined here, are not available on the NHIS public-use files, but may be available through the NCHS Research Data Center.

Comparison of NHIS and CPS estimates of the uninsured

Of the federal surveys that collect information on health insurance coverage, only the Current Population Survey (CPS) provides estimates of the uninsured for persons of all ages in all states (12–14). The NHIS collects information on health insurance coverage for persons of all ages in all states, but it is designed to provide regional and national estimates, so the sample sizes for some states are too small to provide reliable estimates of the uninsured. Estimates based on NHIS may differ from other state-level estimates such as those produced by the CPS for a variety of reasons including differences in survey design, context, questions, the length of time that coverage is measured (for example, full-year or point-in-time), recall periods, response rates, and post-collection processing. [Table III](#) shows 2004–2006 state and national estimates of the percentage uninsured at a point in time and the percentage uninsured for more than a year among persons of all ages based on the NHIS. Also shown are 2004–2006 state and national estimates of the percentage uninsured for a calendar year based on the CPS (14). Consistent with previously published comparisons (15), CPS estimates of the percentage uninsured

for a full year are substantially higher than NHIS estimates of the percentage uninsured for more than a year; the CPS estimates of the percentage uninsured for a full year are more similar to NHIS estimates of the percentage uninsured at a point in time. More complete discussions concerning the similarities and differences between the NHIS and CPS have been published elsewhere (15–19).

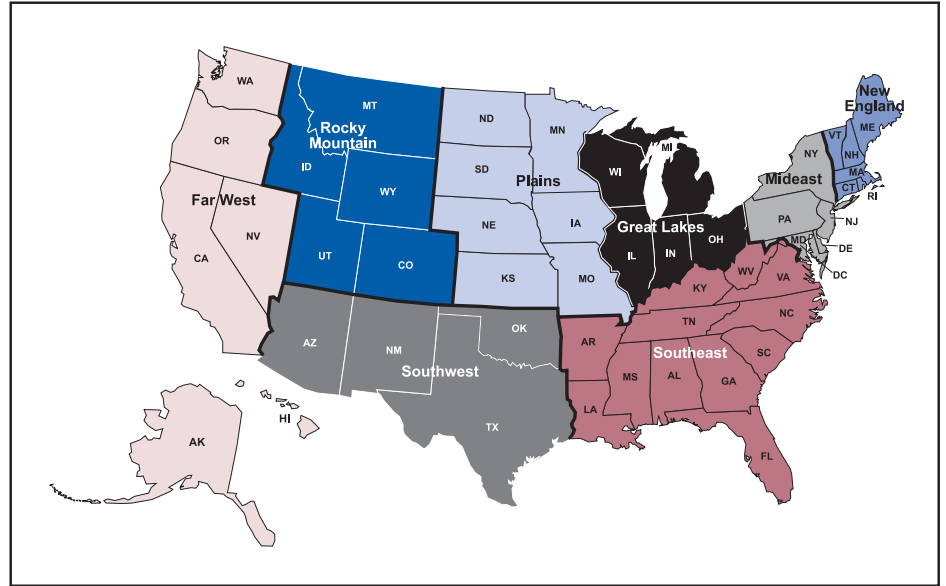


Figure I. Bureau of Economic Analysis: Eight Geographic Regions of the United States

Table III. Percentage of persons of all ages who were uninsured, from the Current Population Survey and the National Health Interview Survey, by selected states, United States 2004–2006

State	Current Population Survey (CPS): Uninsured ¹ for a full year	National Health Interview Survey: Uninsured ² at the time of interview	National Health Interview Survey: Uninsured ² for more than a year ³
	Percent (standard error)		
United States ⁴	15.3 (0.05)	14.7 (0.14)	10.2 (0.11)
Alabama	14.1 (0.40)	14.4 (1.09)	9.0 (0.97)
Arizona	19.0 (0.42)	20.2 (1.07)	14.8 (1.02)
Arkansas	17.5 (0.45)	18.7 (1.59)	13.3 (0.85)
California	18.5 (0.17)	17.2 (0.39)	13.0 (0.35)
Colorado	16.6 (0.45)	16.5 (1.14)	11.9 (1.18)
Connecticut	10.4 (0.37)	9.4 (1.05)	6.3 (0.76)
Florida	20.3 (0.24)	20.0 (0.61)	15.2 (0.50)
Georgia	17.6 (0.31)	18.9 (0.96)	13.3 (0.99)
Hawaii	8.6 (0.32)	6.9 (1.41)	4.7 (1.41)
Idaho	14.9 (0.43)	16.5 (1.99)	11.9 (1.29)
Illinois	13.6 (0.24)	12.2 (0.54)	8.2 (0.40)
Indiana	13.1 (0.33)	15.4 (0.96)	10.9 (0.82)
Iowa	9.3 (0.35)	8.1 (1.12)	5.1 (0.66)
Kansas	11.1 (0.39)	14.8 (1.37)	8.7 (1.40)
Kentucky	13.8 (0.41)	15.5 (1.24)	10.9 (0.77)
Louisiana	18.5 (0.46)	16.8 (1.19)	12.8 (0.75)
Maine	9.5 (0.38)	8.4 (1.62)	4.7 (0.78)
Maryland	13.5 (0.37)	11.1 (0.92)	6.9 (0.66)
Massachusetts	10.3 (0.29)	6.9 (0.71)	3.7 (0.43)
Michigan	10.6 (0.24)	9.9 (0.60)	5.8 (0.38)
Minnesota	8.5 (0.30)	9.3 (0.85)	5.0 (0.52)
Mississippi	18.1 (0.46)	17.0 (1.69)	12.0 (1.32)
Missouri	12.3 (0.34)	11.8 (0.90)	7.3 (0.58)
Nebraska	11.1 (0.38)	10.8 (1.49)	6.7 (0.94)
Nevada	18.3 (0.48)	18.1 (1.67)	11.8 (1.02)
New Jersey	14.6 (0.30)	12.0 (0.77)	8.3 (0.64)
New Mexico	21.0 (0.53)	21.2 (1.72)	15.0 (1.75)
New York	13.2 (0.20)	10.7 (0.42)	7.0 (0.32)
North Carolina	16.0 (0.31)	16.5 (1.11)	11.8 (0.94)
Ohio	10.7 (0.23)	9.6 (0.48)	6.2 (0.42)
Oklahoma	18.7 (0.48)	25.1 (1.52)	15.3 (1.10)
Oregon	16.6 (0.47)	16.3 (1.35)	11.8 (1.13)
Pennsylvania	10.2 (0.21)	9.8 (0.59)	6.2 (0.59)
South Carolina	16.0 (0.44)	17.2 (1.31)	11.6 (1.46)
Tennessee	13.4 (0.35)	12.7 (0.99)	8.2 (1.28)
Texas	24.1 (0.24)	24.6 (0.62)	18.7 (0.55)
Utah	15.7 (0.40)	14.3 (1.48)	8.6 (1.14)
Virginia	13.2 (0.31)	11.3 (0.77)	7.2 (0.59)
Washington	12.5 (0.34)	12.9 (0.90)	8.0 (0.72)
West Virginia	15.5 (0.40)	16.1 (2.04)	12.3 (1.26)
Wisconsin	9.4 (0.31)	8.8 (0.81)	5.5 (0.68)

¹The Current Population Survey (CPS) is conducted by the U.S. Census Bureau for the Bureau of Labor Statistics. The CPS estimates of health insurance coverage are derived from the Annual

Social and Economic Supplement or "March Supplement." Persons were considered uninsured if they were not covered by any type of health insurance or public coverage plan for the entire calendar year prior to the March interview. Persons who only had Indian Health service coverage were not considered to be insured.

²Persons were considered uninsured if they were not covered by any type of health insurance or public coverage plan at the time of interview. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

³A year is defined as the 12 months prior to interview.

⁴Also includes the following states that were excluded from the rest of the table due to small sample sizes: Alaska, Delaware, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. The District of Columbia is also included in the estimates for the United States.

DATA SOURCES: The CPS estimates are from DeNavas-Walt C, Proctor B, Smith J. Income, poverty, and health insurance coverage in the United States: 2006. Current population reports, U.S. Census Bureau. P60-233. 2007. The NHIS estimates are from the Family Core component of the 2004–2006 NHIS; estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Suggested citation

Cohen RA, Makuc DM. State, regional, and national estimates of health insurance coverage for people under 65 years of age: National Health Interview Survey, 2004–2006. National health statistics reports; no 1. Hyattsville, MD: National Center for Health Statistics. 2008.

Copyright information

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

National Center for Health Statistics

Director

Edward J. Sondik, Ph.D.

Acting Co-Deputy Directors

Jennifer H. Madans, Ph.D.

Michael H. Sadagursky

U.S. DEPARTMENT OF
HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention
National Center for Health Statistics
3311 Toledo Road
Hyattsville, MD 20782

FIRST CLASS POSTAGE & FEES PAID CDC/NCHS PERMIT NO. G-284
--

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

To receive this publication regularly, contact the National Center for Health Statistics by calling 1-800-232-4636
E-mail: nchsquery@cdc.gov
Internet: www.cdc.gov/nchs

DHHS Publication No. (PHS) 2008-1250
CS119081
T31589 (06/2008)