

**Table 69 (page 1 of 2). Pneumococcal vaccination among adults aged 18 and over, by selected characteristics: United States, selected years 1989–2014**

Updated data when available, Excel, PDF, more data years, and standard errors: <http://www.cdc.gov/nchs/hus/contents2015.htm#069>.

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	1989	1995	2000	2004	2010	2011	2012	2013	2014
Percent of adults ever receiving pneumococcal vaccination <sup>1</sup>									
18 years and over, age-adjusted <sup>2,3</sup>	4.6	12.0	15.4	16.8	19.2	20.6	19.9	19.9	20.5
18 years and over, crude <sup>3</sup>	4.4	11.7	15.1	16.5	19.6	21.1	20.7	21.0	21.8
Age									
18–44 years	2.1	6.6	5.1	5.4	6.9	8.3	7.9	7.5	8.3
45–64 years	3.7	8.8	12.2	14.2	17.7	18.4	18.0	18.8	18.4
65 years and over	14.1	34.0	53.1	56.8	59.7	62.3	59.9	59.7	61.3
65–74 years	13.1	31.4	48.2	50.4	54.6	56.0	55.0	54.4	55.8
75 years and over	15.7	37.8	59.1	64.2	66.0	70.0	66.4	67.1	69.3
High-risk group <sup>4</sup>									
Total, 18–64 years	---	---	18.3	20.9	18.3	20.0	19.9	21.0	20.2
18–44 years	---	---	11.3	11.4	9.8	12.4	11.3	11.7	11.3
45–64 years	---	---	23.3	27.0	26.7	27.3	28.0	29.4	28.3
65 years and over									
Sex									
Male	13.9	34.6	52.1	54.3	57.6	59.5	55.8	57.1	58.4
Female	14.3	33.6	53.9	58.7	61.3	64.5	63.1	61.8	63.7
Race <sup>5</sup>									
White only	14.8	35.3	55.6	59.1	61.6	64.7	62.3	61.7	63.1
Black or African American only	6.4	21.9	30.6	38.6	45.5	47.5	46.0	48.4	49.2
American Indian or Alaska Native only	31.2	*	70.1	*42.0	*48.5	53.0	*36.3	52.9	57.1
Asian only	*	*23.4	40.9	35.1	47.9	40.3	41.1	45.0	47.7
Native Hawaiian or Other Pacific Islander only	---	---	*	*	*	*	*	*	*
2 or more races	---	---	55.6	*48.8	65.5	77.1	45.4	50.8	71.2
Hispanic origin and race <sup>5</sup>									
Hispanic or Latino	9.8	23.2	30.4	33.7	39.0	43.1	43.4	39.2	45.2
Mexican	12.9	*18.8	32.0	33.3	41.4	47.1	45.5	47.4	47.8
Not Hispanic or Latino	14.3	34.5	54.4	58.3	61.3	63.8	61.2	61.4	62.7
White only	15.0	35.9	56.8	60.9	63.5	66.5	64.0	63.6	64.7
Black or African American only	6.2	21.8	30.6	38.6	46.2	47.6	46.1	48.7	49.8
Percent of poverty level <sup>6</sup>									
Below 100%	11.2	28.7	40.6	42.5	42.6	49.6	39.5	50.5	47.3
100%–199%	15.1	30.7	51.4	56.1	57.2	60.3	59.8	58.0	59.5
200%–399%	15.1	36.1	55.8	60.5	62.2	63.4	63.6	61.7	64.5
400% or more	15.5	39.5	56.9	58.5	64.0	66.4	61.4	61.6	63.2
Hispanic origin and race and percent of poverty level <sup>5,6</sup>									
Hispanic or Latino:									
Below 100%	*	*14.1	23.8	31.8	30.2	34.8	30.9	35.3	34.1
100%–199%	*11.0	*15.6	32.3	29.0	36.9	49.3	42.0	39.1	44.4
200%–399%	*11.1	*34.4	37.6	42.7	45.8	39.2	54.5	36.1	52.1
400% or more	*	*55.1	*26.4	*	43.0	49.1	46.4	49.1	54.0
Not Hispanic or Latino:									
White only:									
Below 100%	13.3	32.5	47.9	50.6	51.1	60.3	46.5	59.1	55.4
100%–199%	16.0	33.5	56.1	61.9	61.3	64.6	66.1	63.3	64.1
200%–399%	15.7	37.1	57.6	62.9	64.9	66.9	65.9	65.2	66.9
400% or more	15.9	39.3	59.5	60.4	66.0	68.6	63.5	63.2	64.5
Black or African American only:									
Below 100%	*5.0	*22.6	28.8	27.0	34.9	39.5	36.1	48.9	46.0
100%–199%	7.8	*20.9	28.1	36.4	46.4	45.6	44.5	46.9	49.1
200%–399%	*5.9	*21.7	35.5	51.3	51.8	54.2	54.1	49.4	47.9
400% or more	*	*	*32.6	45.0	50.1	49.1	45.4	50.3	56.0

See footnotes at end of table.

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Updated data when available, Excel, PDF, more data years, and standard errors: <http://www.cdc.gov/nchs/hus/contents2015.htm#069>.

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	1989	1995	2000	2004	2010	2011	2012	2013	2014
Any basic actions difficulty or complex activity limitation <sup>7</sup>	Percent of adults ever receiving pneumococcal vaccination <sup>1</sup>								
Any basic actions difficulty or complex activity limitation . . . . .	---	---	56.6	61.2	63.9	67.0	65.4	64.4	66.7
Any basic actions difficulty . . . . .	---	---	56.8	61.8	64.2	67.3	66.0	64.9	66.7
Any complex activity limitation . . . . .	---	---	58.0	62.1	65.2	66.7	65.7	66.1	67.6
No disability . . . . .	---	---	47.9	50.1	53.3	55.6	53.2	53.1	53.7
Geographic region									
Northeast . . . . .	10.4	28.2	51.2	56.0	56.7	60.0	58.0	59.1	59.6
Midwest . . . . .	13.7	31.0	52.6	59.5	61.2	65.6	63.8	62.3	65.4
South . . . . .	14.9	35.9	51.3	57.2	60.9	63.2	59.5	59.3	60.9
West . . . . .	17.9	41.1	59.7	53.7	58.9	59.5	58.2	58.3	59.3
Location of residence <sup>8</sup>									
Within MSA . . . . .	13.1	33.8	52.4	56.7	58.8	61.7	59.3	59.0	60.7
Outside MSA . . . . .	16.9	34.7	55.4	57.3	63.3	64.6	62.4	62.8	64.0

--- Data not available.

\* Estimates are considered unreliable. Data preceded by an asterisk have a relative standard error (RSE) of 20%–30%. Data not shown have an RSE greater than 30%.

<sup>1</sup>Questions concerning receipt of pneumococcal vaccination differed slightly on the National Health Interview Survey across the years for which data are shown. See Appendix II, Vaccination. Data prior to 1997 are not strictly comparable with data for later years due to the 1997 questionnaire redesign. See Appendix I, National Health Interview Survey (NHIS).

<sup>2</sup>Estimates are age-adjusted to the year 2000 standard population using four age groups: 18–44 years, 45–64 years, 65–74 years, and 75 years and over. See Appendix II, Age adjustment.

<sup>3</sup>Includes all other races not shown separately, unknown poverty level in 1989, and unknown disability status.

<sup>4</sup>High-risk group membership is based on recommendations of CDC's Advisory Committee on Immunization Practices (ACIP). The high-risk group includes persons who reported diabetes, cancer, heart, lung, liver, or kidney disease. Starting in 2009, this definition was expanded to also include persons who reported asthma or cigarette smoking, to be consistent with the revised ACIP recommendation. Starting with data year 2012, the survey questionnaire changed and now asks respondents if a health professional had ever told them they had chronic obstructive pulmonary disease (COPD), and this information was added to the list of lung diseases used to construct the high-risk category. For more information on high-risk groups, see the 2009 ACIP recommendation. Available from: <http://www.cdc.gov/mmwr/pdf/wk/mm5934.pdf>.

<sup>5</sup>The race groups, white, black, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and 2 or more races, include persons of Hispanic and non-Hispanic origin. Persons of Hispanic origin may be of any race. Starting with 1999 data, race-specific estimates are tabulated according to the 1997 *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* and are not strictly comparable with estimates for earlier years. The five single-race categories plus multiple-race categories shown in the table conform to the 1997 Standards. Starting with 1999 data, race-specific estimates are for persons who reported only one racial group; the category 2 or more races includes persons who reported more than one racial group. Prior to 1999, data were tabulated according to the 1977 Standards with four racial groups, and the Asian only category included Native Hawaiian or Other Pacific Islander. Estimates for single-race categories prior to 1999 included persons who reported one race or, if they reported more than one race, identified one race as best representing their race. Starting with 2003 data, race responses of other race and unspecified multiple race were treated as missing, and then race was imputed if these were the only race responses. Almost all persons with a race response of other race were of Hispanic origin. See Appendix II, Hispanic origin; Race.

<sup>6</sup>Percent of poverty level is based on family income and family size and composition using U.S. Census Bureau poverty thresholds. Poverty level was unknown for 11% of persons aged 18 and over in 1989. Missing family income data were imputed for 1991 and beyond. See Appendix II, Family income; Poverty; Table VI.

<sup>7</sup>Any basic actions difficulty or complex activity limitation is defined as having one or more of the following limitations or difficulties: movement difficulty, emotional difficulty, sensory (seeing or hearing) difficulty, cognitive difficulty, self-care (activities of daily living or instrumental activities of daily living) limitation, social limitation, or work limitation. For more information, see Appendix II, Basic actions difficulty; Complex activity limitation. Starting with 2007 data, the hearing question, a component of the basic actions difficulty measure, was revised. Consequently, data prior to 2007 are not comparable with data for 2007 and beyond. For more information on the impact of the revised hearing question, see Appendix II, Hearing trouble.

<sup>8</sup>MSA is metropolitan statistical area. Starting with 2006 data, MSA status is determined using 2000 census data and the 2000 standards for defining MSAs. For data prior to 2006, see Appendix II, Metropolitan statistical area (MSA) for the applicable standards.

NOTES: In 1997, CDC's Advisory Committee on Immunization Practices (ACIP) recommended universal pneumonia vaccination for adults aged 65 and over. A pneumococcal polysaccharide vaccine was first licensed in 1977. Medicare payment for the costs of the vaccine and its administration began in 1981. CDC. Prevention of pneumococcal disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997;46(RR-08);1–24. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/00047135.htm>. For more information on the adult vaccination schedule, see: <http://www.cdc.gov/vaccines/schedules/index.html>. Standard errors for selected years are available in the spreadsheet version of this table. Available from: <http://www.cdc.gov/nchs/hus.htm>. Data for additional years are available. See the Excel spreadsheet on the *Health, United States* website at: <http://www.cdc.gov/nchs/hus.htm>. Some estimates have been revised and differ from previous editions of *Health, United States*.

SOURCE: CDC/NCHS, National Health Interview Survey. Data are from the following questionnaire supplements: immunization (1981), health promotion and disease prevention (1991), and the year 2000 objectives (1993–1995). Starting in 1997, data are from the sample adult questionnaire. See Appendix I, National Health Interview Survey (NHIS).