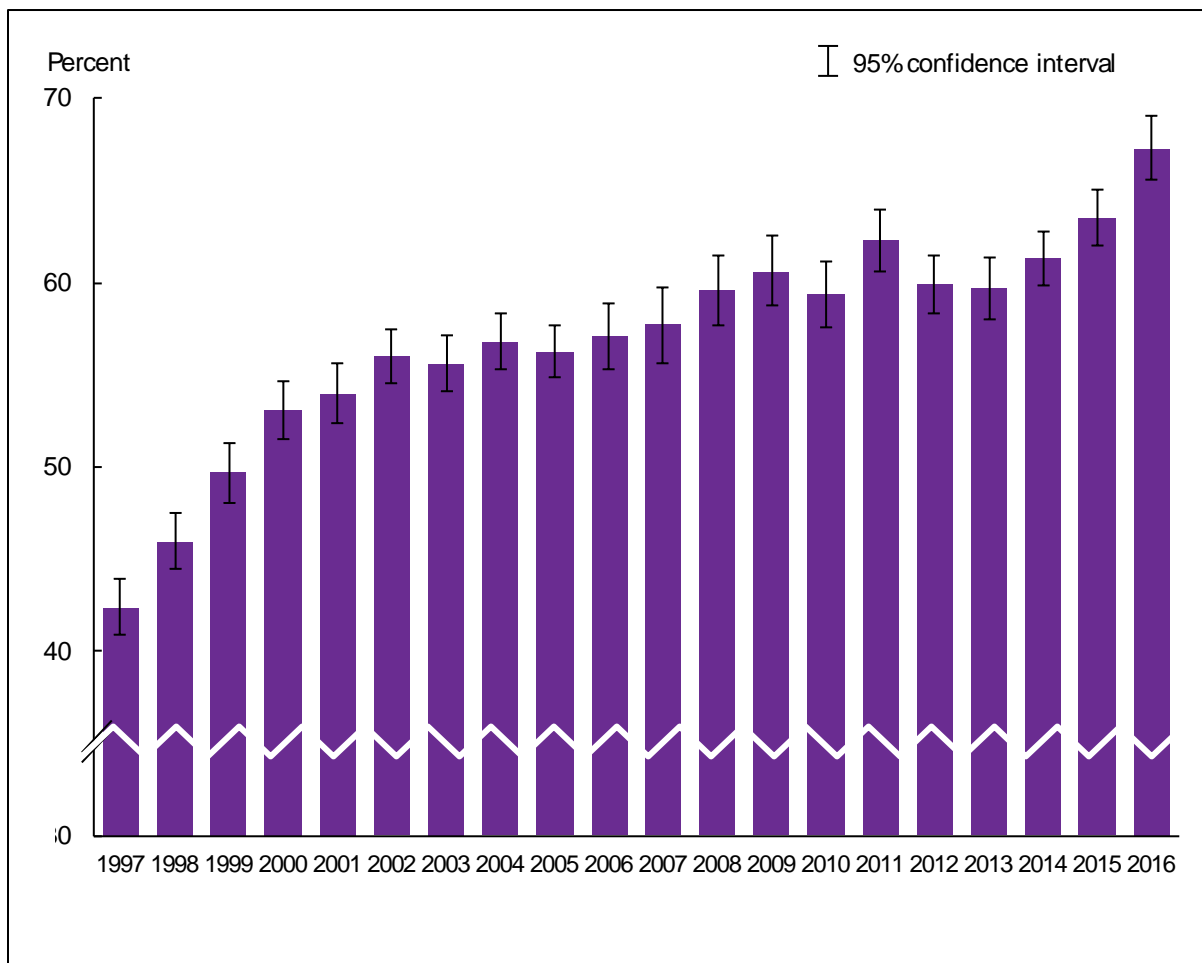


## Receipt of pneumococcal vaccination

**Figure 5.1. Percentage of adults aged 65 and over who had ever received a pneumococcal vaccination: United States, 1997–2016**

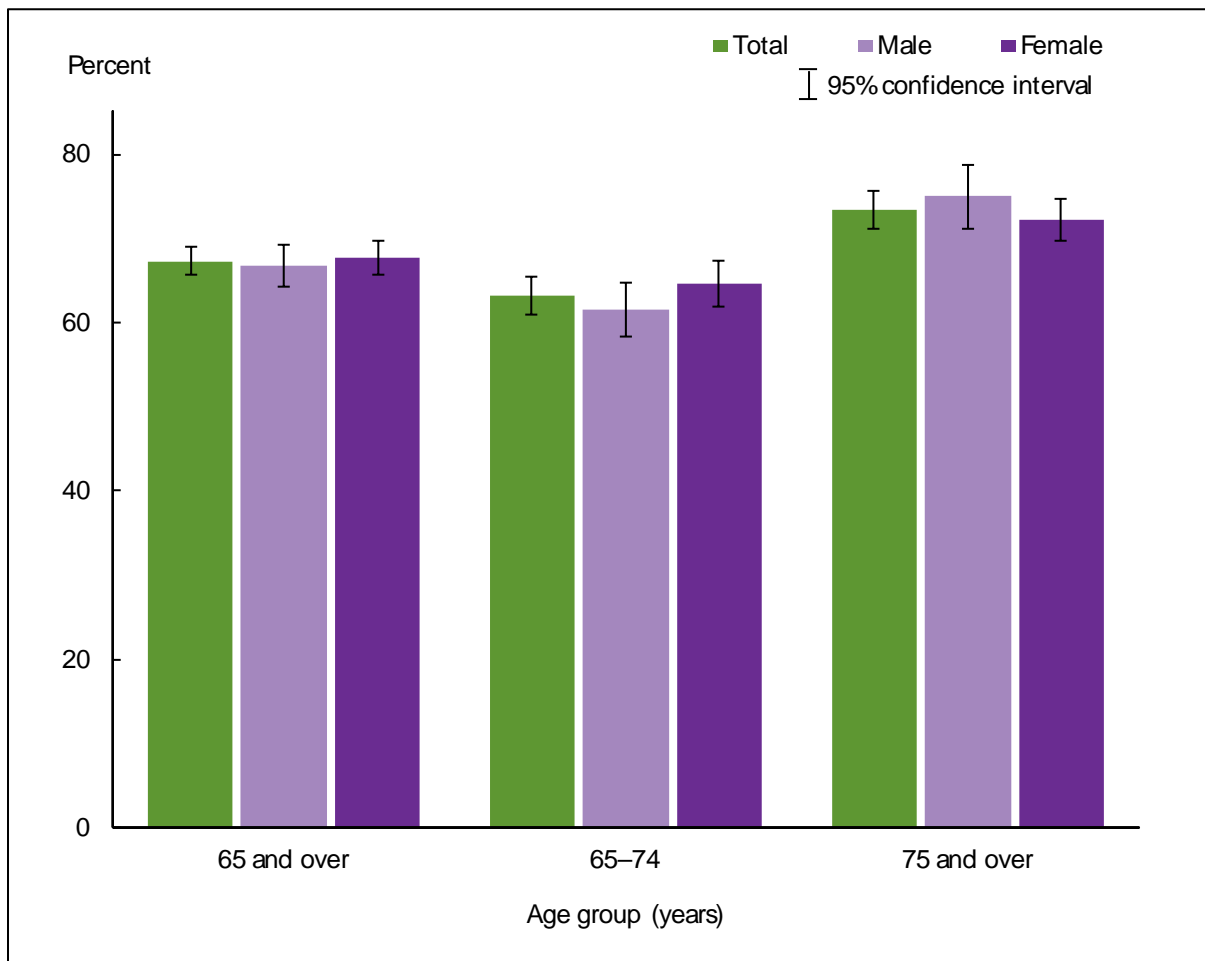


NOTES: Data are based on household interviews of a sample of the civilian noninstitutionalized population. The analyses exclude those with unknown pneumococcal vaccination status (about 5% of respondents each year). Advisory Committee on Immunization Practices recommendations regarding who should receive pneumococcal vaccination have changed over the years, and changes in coverage estimates may reflect changes in recommendations. Of particular note, beginning in 2014, all adults aged 65 and over are recommended to receive both the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent pneumococcal polysaccharide vaccine (PPSV23) in series (9–11). See [Technical Notes](#) for more details.

DATA SOURCE: NCHS, National Health Interview Survey, 1997–2016, Sample Adult Core component.

- For 2016, the percentage of adults aged 65 and over who had ever received a pneumococcal vaccination was 66.9% (95% confidence interval = 65.47%–68.38%), which was higher than the 2015 estimate of 63.5%.
- The percentage of adults aged 65 and over who had ever received a pneumococcal vaccination increased from 42.4% in 1997 to 53.1% in 2000, and then increased more slowly to 59.7% in 2013. The percentage of adults aged 65 and over who had ever received a pneumococcal vaccination again increased more rapidly, from 59.7% in 2013 to 66.9% in 2016.

**Figure 5.2. Percentage of adults aged 65 and over who had ever received a pneumococcal vaccination, by age group and sex: United States, 2016**

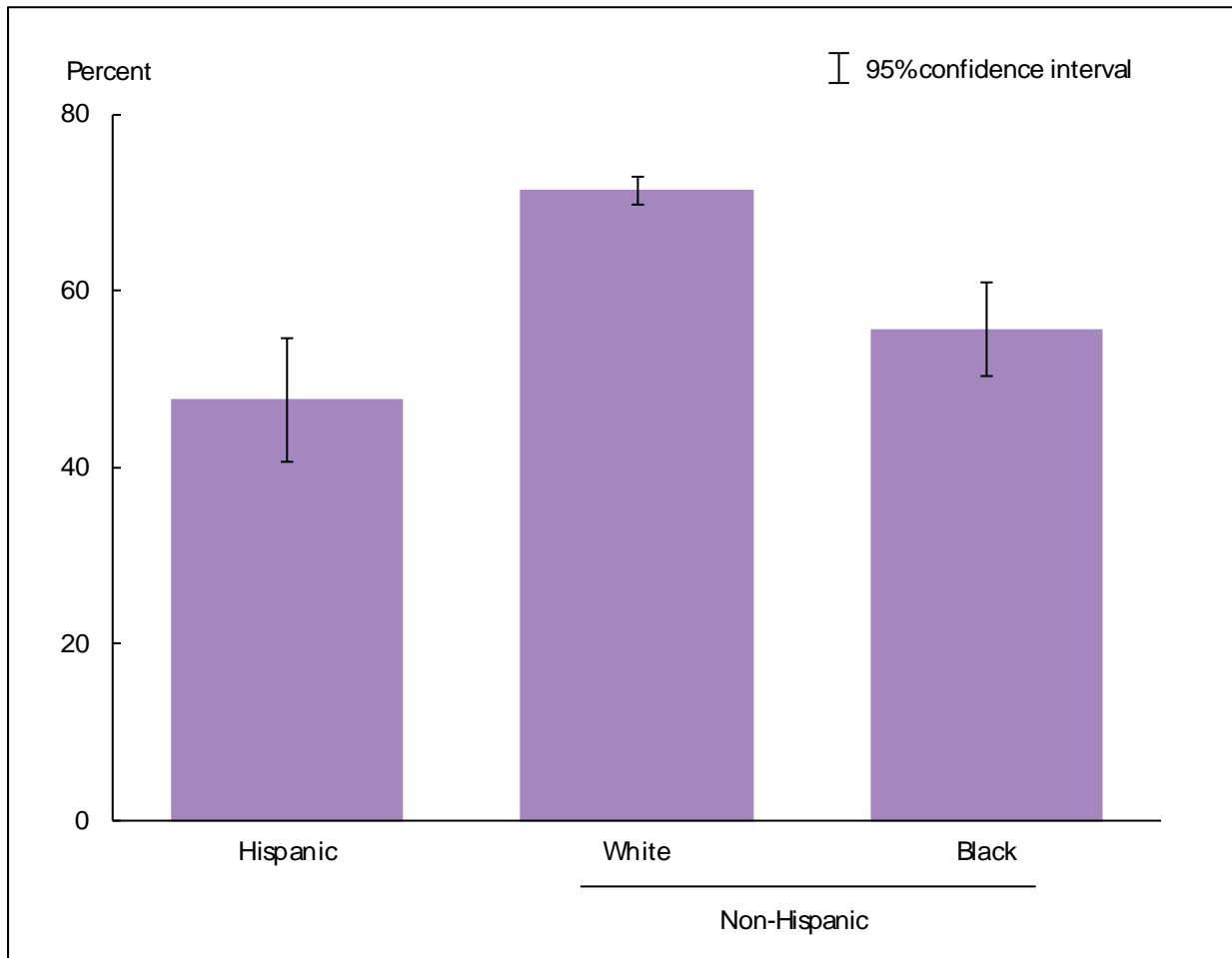


NOTES: Data are based on household interviews of a sample of the civilian noninstitutionalized population. The analyses exclude the 3.3% of adults aged 65 and over with unknown pneumococcal vaccination status. Advisory Committee on Immunization Practices recommendations regarding who should receive pneumococcal vaccination have changed over the years, and changes in coverage estimates may reflect changes in recommendations. Of particular note, beginning in 2014, all adults aged 65 and over are recommended to receive both the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent pneumococcal polysaccharide vaccine (PPSV23) in series (9–11). See [Technical Notes](#) for more details.

DATA SOURCE: NCHS, National Health Interview Survey, 2016, Sample Adult Core component.

- For both sexes combined, the percentage of adults by age group who had ever received a pneumococcal vaccination was 62.6% for persons aged 65–74 and 73.3% for persons aged 75 and over.
- For both sexes combined, adults aged 75 and over were more likely than those aged 65–74 to have ever received a pneumococcal vaccination. This pattern held for males and females.
- Among adults aged 65–74 women were more likely to have ever received a pneumococcal vaccination than men.

**Figure 5.3. Percentage of adults aged 65 and over who had ever received a pneumococcal vaccination, by race and ethnicity: United States, 2016**



NOTES: Data are based on household interviews of a sample of the civilian noninstitutionalized population. The analyses exclude the 3.3% of adults aged 65 and over with unknown pneumococcal vaccination status. Advisory Committee on Immunization Practices recommendations regarding who should receive pneumococcal vaccination have changed over the years, and changes in coverage estimates may reflect changes in recommendations. Of particular note, beginning in 2014, all adults aged 65 and over are recommended to receive both the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent pneumococcal polysaccharide vaccine (PPSV23) in series (9–11). See [Technical Notes](#) for more details.

DATA SOURCE: NCHS, National Health Interview Survey, 2016, Sample Adult Core component.

- The percentage of adults aged 65 and over by race and ethnicity who had ever received a pneumococcal vaccination was 47.8% for Hispanic persons, 71.0% for non-Hispanic white persons, and 55.2% for non-Hispanic black persons.
- Of the three race and ethnicity groups, non-Hispanic white adults were more likely to have ever received a pneumococcal vaccination than non-Hispanic black and Hispanic adults.

## Data tables for Figures 5.1–5.3:

**Data table for Figure 5.1. Percentage of adults aged 65 and over who had ever received a pneumococcal vaccination: United States, 1997–2016**

Year	Crude <sup>1</sup> percent (95% confidence interval)	Age-adjusted <sup>2</sup> percent (95% confidence interval)
1997	42.4 (40.9–43.9)	42.6 (41.1–44.1)
1998	46.0 (44.5–47.5)	46.3 (44.8–47.8)
1999	49.7 (48.1–51.3)	49.9 (48.3–51.5)
2000	53.1 (51.5–54.7)	53.4 (51.8–55.0)
2001	54.0 (52.4–55.6)	54.2 (52.6–55.7)
2002	56.0 (54.5–57.5)	56.2 (54.8–57.7)
2003	55.6 (54.1–57.1)	55.7 (54.2–57.1)
2004	56.8 (55.3–58.3)	57.0 (55.5–58.5)
2005	56.2 (54.82–57.64)	56.3 (54.95–57.72)
2006	57.1 (55.25–58.88)	57.2 (55.43–59.04)
2007	57.7 (55.68–59.69)	57.8 (55.78–59.80)
2008	59.6 (57.68–61.48)	59.8 (57.98–61.64)
2009	60.6 (58.74–62.51)	61.0 (59.15–62.79)
2010	59.4 (57.61–61.17)	59.8 (58.02–61.51)
2011	62.3 (60.55–63.95)	62.7 (61.04–64.31)
2012	59.9 (58.29–61.49)	60.4 (58.86–62.01)
2013	59.7 (58.02–61.36)	60.4 (58.77–62.05)
2014	61.3 (59.88–62.80)	62.3 (60.82–63.70)
2015	63.5 (62.00–65.05)	64.1 (62.59–65.57)
2016	66.9 (65.47–68.38)	67.7 (66.30–69.14)

<sup>1</sup>Crude estimates are presented.

<sup>2</sup>Estimates are age-adjusted using the projected 2000 U.S. population as the standard population and two age groups: 65–74 and 75 and over.

NOTES: Data are based on household interviews of a sample of the civilian noninstitutionalized population. Beginning with 2012 data, the National Health Interview Survey transitioned to weights derived from the 2010 census. For 2003–2011 data, weights were derived from the 2000 census. In this Early Release, estimates for 2000–2002 were recalculated using weights derived from the 2000 census. For 1997–1999 data, weights were derived from the 1990 census. See [Technical Notes](#) for more details.

DATA SOURCE: NCHS, National Health Interview Survey, 1997–2016, Sample Adult Core component.

**Data table for Figure 5.2. Percentage of adults aged 65 and over who had ever received a pneumococcal vaccination, by age group and sex: United States, 2016**

Age (years) and sex	Percent	95% confidence interval
65–74, total	62.6	60.71–64.50
65–74, male	60.5	57.66–63.32
65–74, female	64.4	61.96–66.90
75 and over, total	73.3	71.34–75.29
75 and over, male	73.6	70.68–76.58
75 and over, female	73.1	70.72–75.47
65 and over (crude <sup>1</sup> ), total	66.9	65.47–68.38
65 and over (crude <sup>1</sup> ), male	65.5	63.40–67.55
65 and over (crude <sup>1</sup> ), female	68.1	66.18–70.00
65 and over (age-adjusted <sup>2</sup> ), total	67.7	66.30–69.14
65 and over (age-adjusted <sup>2</sup> ), male	66.8	64.83–68.70
65 and over (age-adjusted <sup>2</sup> ), female	68.6	66.66–70.48

<sup>1</sup>Crude estimates are presented.

<sup>2</sup>Estimates are age-adjusted using the projected 2000 U.S. population as the standard population and two age groups: 65–74 and 75 and over.

NOTE: Data are based on household interviews of a sample of the civilian noninstitutionalized population.

DATA SOURCE: NCHS, National Health Interview Survey, 2016, Sample Adult Core component.

**Data table for Figure 5.3. Percentage of adults aged 65 and over who had ever received a pneumococcal vaccination, by race and ethnicity: United States, 2016**

Race and ethnicity	Crude <sup>1</sup> percent (95% confidence interval)	Age-adjusted <sup>2</sup> percent (95% confidence interval)
Hispanic or Latino	47.8 (42.06–53.57)	48.8 (42.91–54.77)
Not Hispanic or Latino, single race, white	71.0 (69.64–72.34)	71.7 (70.41–72.95)
Not Hispanic or Latino, single race, black	55.2 (50.47–59.89)	55.7 (50.98–60.33)

<sup>1</sup>Crude estimates are presented.

<sup>2</sup>Estimates are age-adjusted using the projected 2000 U.S. population as the standard population and two age groups: 65–74 and 75 and over.

NOTE: Data are based on household interviews of a sample of the civilian noninstitutionalized population.

DATA SOURCE: NCHS, National Health Interview Survey, 2016, Sample Adult Core component.