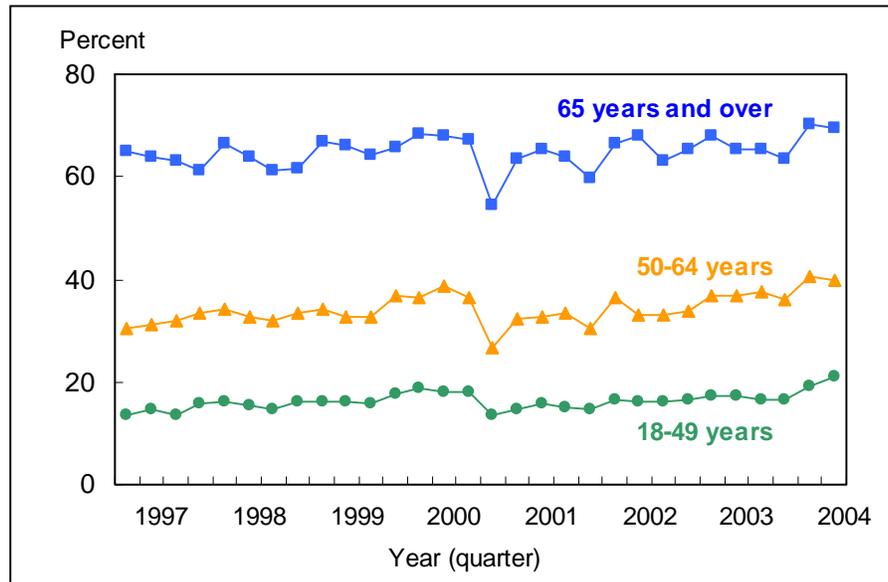


**Figure 4.1. Percent of adults aged 18 years and over who had received an influenza shot during the past 12 months, by age group and quarter: United States, 1997–2004**



NOTES: Respondents were asked if they had received a flu shot during the past 12 months. Responses to this question cannot be used to determine when during the preceding 12 months the subject received the flu shot. For interviews conducted from January to September 2004, this reference period covers flu shots received from January 2003 to September 2004. Therefore, it is unlikely that this period would cover flu shots received during the current flu season. In addition, estimates are subject to recall error, which will vary depending on when the question is asked because the receipt of a flu shot is seasonal. According to the recommendations of the Advisory Committee on Immunization Practices, all adults aged 65 years and over should receive influenza vaccination. In the 2000-01 flu season (but not implemented until the 2001-02 flu season), these recommendations for influenza vaccination were expanded to include persons 50 to 64 years of age, a group formerly recommended influenza vaccination only if they had existing high-risk conditions (6). Adults aged 18-49 years are recommended to receive influenza vaccination only if they have existing high-risk conditions. The analyses excluded those with unknown flu shot status (about 1% of respondents each year). Beginning with the 2003 data, the National Health Interview Survey transitioned to weights derived from the 2000 census. In this Early Release, estimates for 2000-02 were recalculated using weights derived from the 2000 census. See "About This Release" and table III in the appendix for more details. Beginning in September 2003, respondents were asked about influenza vaccination by nasal spray (sometimes called by the brand name FluMist™) in addition to the question regarding the flu shot. Estimates of nasal spray flu vaccination are not presented in this Early Release.

DATA SOURCE: Sample Adult Core component of the 1997-2004 National Health Interview Surveys. The estimate for 2004 was based on data collected from January through September.

■ In the third quarter of 2004, the percentage of adults who had received an influenza shot during the past year was 66.4% for persons aged 65 years and over, 41.0% for persons aged 50-64 years, and 19.4% for persons aged 18-49 years.

■ For persons aged 65 years and over, the third quarter estimate in 2004 was slightly lower than the third quarter estimate in 2000 and slightly higher than the third quarter estimate in 2003, but these differences were not statistically significant (delays in availability of the flu shots occurred in the fall of 2000 and, to a lesser extent, in the fall of 2001) (6,7).

**Table 4.1. Annual percent of adults aged 50 years and over who had received an influenza shot during the past 12 months, by age group and sex: United States, 1997-2003**

Year	50-64 years			65 years and over			
	Total	Male	Female	Total		Male	Female
				Crude	Age-adjusted		
1997	31.9 (30.5-33.3)	28.0 (26.1-29.9)	35.5 (33.6-37.4)	63.2 (61.9-64.6)	63.1 (61.7-64.4)	64.8 (62.5-67.1)	62.1 (60.5-63.7)
1998	33.1 (31.7-34.5)	29.0 (27.0-31.0)	37.0 (35.1-38.9)	63.3 (61.9-64.7)	63.3 (61.9-64.6)	63.7 (61.5-65.9)	63.0 (61.2-64.8)
1999	34.1 (32.8-35.4)	30.5 (28.6-32.4)	37.4 (35.5-39.3)	65.7 (64.3-67.2)	65.1 (63.6-66.5)	67.2 (65.0-69.4)	64.6 (62.7-66.5)
2000	34.6 (33.1-36.1)	31.9 (29.9-33.9)	37.2 (35.2-39.1)	64.4 (63.0-65.9)	64.6 (63.2-66.0)	66.0 (63.8-68.3)	63.3 (61.6-65.0)
2001	32.2 (30.9-33.5)	30.3 (28.3-32.2)	34.0 (32.2-35.8)	63.1 (61.7-64.5)	63.2 (61.8-64.6)	64.8 (62.5-67.1)	61.8 (60.1-63.5)
2002	34.0 (32.7-35.3)	30.7 (28.8-32.5)	37.2 (35.4-38.9)	65.7 (64.3-67.2)	65.9 (64.5-67.3)	67.1 (64.7-69.5)	64.7 (62.8-66.6)
2003	36.8 (35.4-38.2)	34.5 (32.6-36.3)	38.9 (37.0-40.9)	65.5 (64.1-66.9)	65.6 (64.2-66.9)	66.0 (63.9-68.1)	65.1 (63.2-67.0)

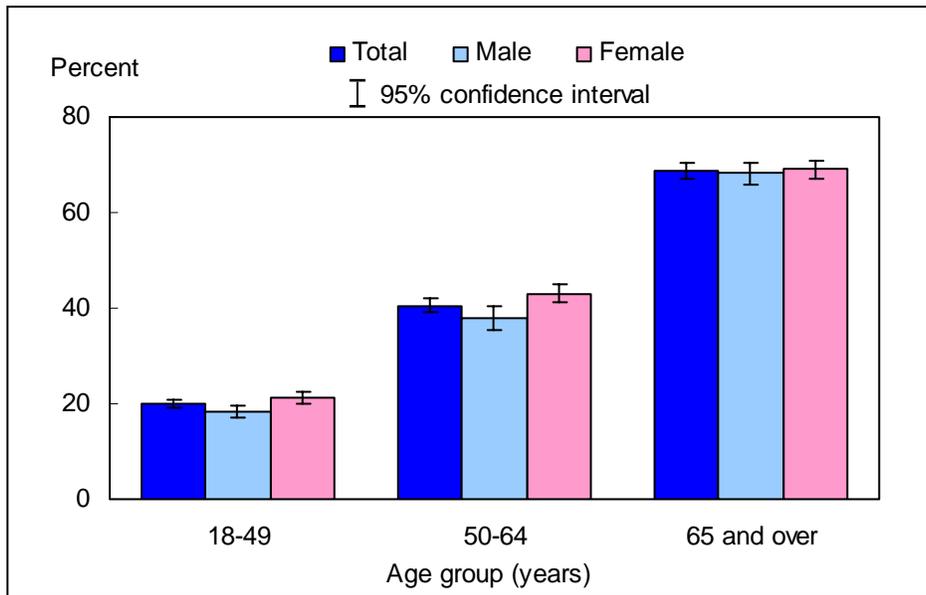
NOTES: Respondents were asked if they had received a flu shot during the past 12 months. Responses to this question cannot be used to determine when during the preceding 12 months the subject received the flu shot. For interviews conducted from January to September 2004, this reference period covers flu shots received from January 2003 to September 2004. Therefore, it is unlikely that this period would cover flu shots received during the current flu season. In addition, estimates are subject to recall error, which will vary depending on when the question is asked because the receipt of a flu shot is seasonal. According to the recommendations of the Advisory Committee on Immunization Practices, all adults aged 65 years and over should receive influenza vaccination. In the 2000-01 flu season (but not implemented until the 2001-02 flu season), these recommendations for influenza vaccination were expanded to include persons 50 to 64 years of age, a group formerly recommended influenza vaccination only if they had existing high-risk conditions (6). Adults aged 18-49 years are recommended to receive influenza vaccination only if they have existing high-risk conditions. The analyses excluded those with unknown flu shot status (about 1% of respondents each year). Age-adjusted estimates for persons aged 65 years and over for this Healthy People 2010 Leading Health Indicator are based on the 2000 projected U.S. standard population using two age groups: 65-74 years and 75 years and over. Beginning with the 2003 data, the National Health Interview Survey transitioned to weights derived from the 2000 census. In this Early Release, estimates for 2000-02 were recalculated using weights derived from the 2000 census. See "About This Release" and table III in the appendix for more details. Beginning in September 2003, respondents were asked about influenza vaccination by nasal spray (sometimes called by the brand name FluMist™) in addition to the question regarding the flu shot. Estimates of nasal spray flu vaccination are not presented in this Early Release.

DATA SOURCE: Sample Adult Core component of the 1997-2003 National Health Interview Surveys.

■ For adults aged 50-64 years, the annual percentage of persons who received a flu shot during the past 12 months increased from 34.0% in 2002 to 36.8% in 2003. The increase was seen mainly among men.

■ For adults aged 65 years and over, the annual percentage of persons who received a flu shot was 65.5% in 2003. The estimate in 2003 was similar to the estimates in 2002 and 1999 (delays in the availability of influenza shots occurred in the fall of 2000, and to a lesser extent, in the fall of 2001) (6,7).

**Figure 4.2. Percent of adults aged 18 years and over who had received an influenza shot during the past 12 months, by age group and sex: United States, January-September 2004**

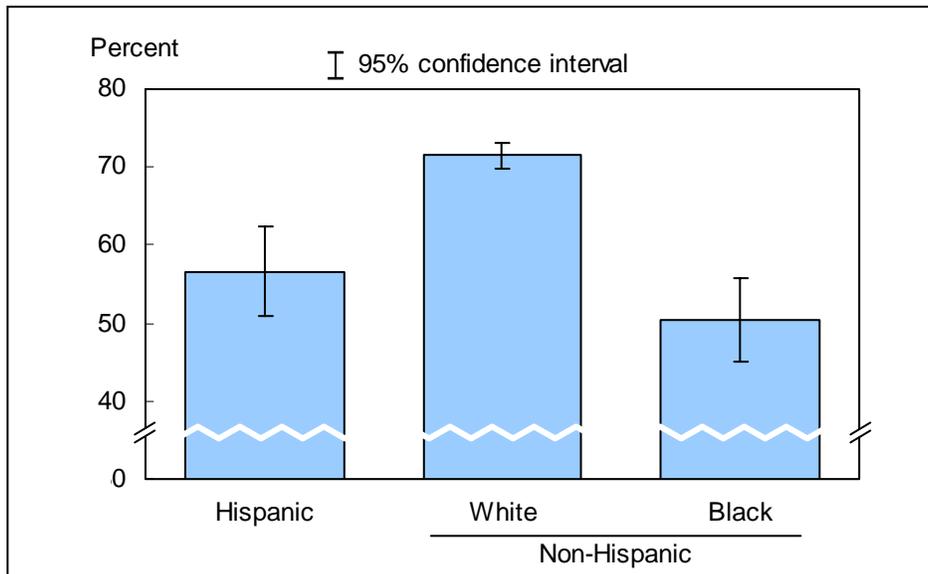


NOTES: Respondents were asked if they had received a flu shot during the past 12 months. Responses to this question cannot be used to determine when during the preceding 12 months the subject received the flu shot. For interviews conducted from January to September 2004, this reference period covers flu shots received from January 2003 to September 2004. Therefore, it is unlikely that this period would cover flu shots received during the current flu season. In addition, estimates are subject to recall error, which will vary depending on when the question is asked because the receipt of a flu shot is seasonal. According to the recommendations of the Advisory Committee on Immunization Practices, all adults aged 65 years and over should receive influenza vaccination. In the 2000-01 flu season (but not implemented until the 2001-02 flu season), these recommendations for influenza vaccination were expanded to include persons 50 to 64 years of age, a group formerly recommended influenza vaccination only if they had existing high-risk conditions (6). Adults aged 18-49 years are recommended to receive influenza vaccination only if they have existing high-risk conditions. The analyses excluded 341 adults (1.5%) with unknown flu shot status. Beginning in September 2003, respondents were asked about influenza vaccination by nasal spray (sometimes called by the brand name FluMist™) in addition to the question regarding the flu shot. Estimates of nasal spray flu vaccination are not presented in this Early Release.

DATA SOURCE: Based on data collected from January through September in the Sample Adult Core component of the 2004 National Health Interview Survey.

- For both sexes combined, the percentage of adults who had a flu shot during the past 12 months was highest among adults aged 65 years and over (68.7%), followed by adults aged 50-64 years (40.6%) and 18-49 years (19.9%).
- For age groups 18-49 years and 50-64 years, women were more likely than men to have received a flu shot during the past 12 months.

**Figure 4.3. Percent of adults aged 65 years and over who had received an influenza shot during the past 12 months, by race/ethnicity: United States, January-September 2004**



NOTES: Respondents were asked if they had received a flu shot during the past 12 months. Responses to this question cannot be used to determine when during the preceding 12 months the subject received the flu shot. For interviews conducted from January to September 2004, this reference period covers flu shots received from January 2003 to September 2004. Therefore, it is unlikely that this period would cover flu shots received during the current flu season. In addition, estimates are subject to recall error, which will vary depending on when the question is asked because the receipt of a flu shot is seasonal. The analyses excluded 78 adults (1.8%) aged 65 years and over with unknown flu shot status. Beginning in September 2003, respondents were asked about influenza vaccination by nasal spray (sometimes called by the brand name FluMist™) in addition to the question regarding the flu shot. Estimates of nasal spray flu vaccination are not presented in this Early Release.

DATA SOURCE: Based on data collected from January through September in the Sample Adult Core component of the 2004 National Health Interview Survey.

■ For adults aged 65 years and over, the percentage of persons receiving a flu shot during the past 12 months was 56.6% for Hispanic persons, 71.5% for non-Hispanic white persons, and 50.5% for non-Hispanic black persons.

■ Hispanic persons and non-Hispanic black persons were less likely than non-Hispanic white persons to have received a flu shot during the past 12 months.

## Data tables for figures 4.1-4.3:

Data table for figure 4.1. Percent of adults aged 18 years and over who had received an influenza shot during the past 12 months, by age group and quarter: United States, 1997-2004

Year and quarter	Percent (95% confidence interval)		
	18-49 years	50-64 years	65 years and over
<b>1997</b>			
Quarter 1	13.6 (12.5-14.6)	30.5 (27.8-33.2)	65.0 (62.3-67.6)
Quarter 2	14.5 (13.4-15.5)	31.3 (28.7-34.0)	63.7 (61.1-66.2)
Quarter 3	13.6 (12.6-14.6)	32.0 (29.3-34.6)	63.1 (60.3-65.9)
Quarter 4	15.6 (14.5-16.7)	33.6 (31.1-36.2)	61.2 (58.7-63.8)
<b>1998</b>			
Quarter 1	16.1 (14.8-17.3)	34.2 (31.3-37.1)	66.3 (63.2-69.4)
Quarter 2	15.3 (14.1-16.5)	32.8 (30.1-35.5)	64.0 (61.3-66.8)
Quarter 3	14.5 (13.3-15.6)	32.0 (29.3-34.6)	61.3 (58.5-64.0)
Quarter 4	16.0 (14.8-17.2)	33.5 (30.8-36.1)	61.6 (58.7-64.5)
<b>1999</b>			
Quarter 1	16.3 (14.8-17.7)	34.2 (31.1-37.3)	67.0 (64.0-70.1)
Quarter 2	16.0 (14.7-17.3)	32.6 (29.8-35.4)	66.1 (63.4-68.8)
Quarter 3	15.8 (14.5-17.1)	32.8 (30.1-35.5)	64.1 (61.2-67.0)
Quarter 4	17.6 (16.2-18.9)	36.7 (34.2-39.2)	65.7 (62.7-68.6)
<b>2000</b>			
Quarter 1	18.6 (17.2-19.9)	36.6 (33.7-39.4)	68.2 (65.3-71.0)
Quarter 2	18.0 (16.7-19.4)	38.5 (35.7-41.4)	68.1 (65.6-70.7)
Quarter 3	18.2 (16.9-19.4)	36.6 (33.7-39.5)	67.1 (64.4-69.8)
Quarter 4	13.6 (12.4-14.8)	26.6 (24.2-29.0)	54.3 (51.6-57.1)
<b>2001</b>			
Quarter 1	14.7 (13.4-16.0)	32.3 (29.6-35.0)	63.3 (60.2-66.3)
Quarter 2	15.9 (14.7-17.1)	32.6 (30.1-35.1)	65.4 (62.8-68.0)
Quarter 3	14.9 (13.9-15.9)	33.3 (30.7-35.8)	64.0 (61.1-66.8)
Quarter 4	14.5 (13.6-15.9)	30.6 (28.0-33.1)	59.6 (56.7-62.4)
<b>2002</b>			
Quarter 1	16.4 (15.2-17.7)	36.3 (33.6-38.9)	66.6 (63.8-69.4)
Quarter 2	16.0 (14.8-17.2)	33.0 (30.5-35.5)	67.8 (65.3-70.3)
Quarter 3	16.2 (14.9-17.5)	33.1 (30.6-35.6)	63.1 (60.5-65.8)
Quarter 4	16.4 (15.1-17.8)	33.8 (31.0-36.6)	65.5 (62.4-68.6)
<b>2003</b>			
Quarter 1	17.1 (15.7-18.4)	36.8 (34.2-39.4)	67.8 (65.0-70.6)
Quarter 2	17.2 (15.8-18.6)	36.8 (33.9-39.7)	65.4 (62.6-68.3)
Quarter 3	16.4 (15.2-17.6)	37.4 (34.9-39.9)	65.4 (62.8-67.9)
Quarter 4	16.7 (15.2-18.1)	36.1 (33.3-39.0)	63.3 (60.1-66.5)
<b>2004</b>			
Quarter 1	19.3 (17.9-20.8)	40.6 (38.0-43.3)	70.3 (67.5-73.0)
Quarter 2	20.9 (19.1-22.6)	40.0 (37.1-43.0)	69.5 (66.7-72.3)
Quarter 3	19.4 (18.2-20.7)	41.0 (38.4-43.6)	66.4 (63.6-69.2)

**Data table for figure 4.2. Percent of adults aged 18 years and over who had received an influenza shot during the past 12 months, by age group and sex: United States, January-September 2004**

<b>Age and sex</b>	<b>Percent</b>	<b>95% confidence interval</b>
<b>18-49 years</b>		
Total	19.9	19.0-20.8
Male	18.4	17.2-19.6
Female	21.3	20.1-22.6
<b>50-64 years</b>		
Total	40.6	39.0-42.2
Male	37.9	35.5-40.3
Female	43.1	41.1-45.1
<b>65 years and over</b>		
Total	68.7	67.2-70.3
Male	68.3	66.0-70.6
Female	69.1	67.0-71.0
<b>18 years and over: crude<sup>1</sup></b>		
Total	32.4	31.6-33.1
Male	29.9	28.8-31.0
Female	34.6	33.6-35.7
<b>65 years and over: age-adjusted<sup>2</sup></b>		
Total	68.8	67.3-70.4
Male	69.1	66.8-71.3
Female	68.9	66.9-70.9

<sup>1</sup>Crude estimates are presented in the figure.

<sup>2</sup>Estimates for this Healthy People 2010 Leading Health Indicator are age-adjusted to the 2000 projected U.S. standard population using two age groups: 65-74 years and 75 years and over.

**Data table for figure 4.3. Percent of adults aged 65 years and over who had received an influenza shot during the past 12 months, by race/ethnicity: United States, January-September 2004**

<b>Race/ethnicity</b>	<b>Percent (95% confidence interval)</b>	
	<b>Crude<sup>1</sup></b>	<b>Age-adjusted<sup>2</sup></b>
<b>Hispanic or Latino</b>	56.6 (50.8-62.3)	56.8 (50.9-62.6)
<b>Not Hispanic or Latino</b>		
<b>White, single race</b>	71.5 (69.9-73.1)	71.4 (69.8-73.0)
<b>Black, single race</b>	50.5 (45.1-55.8)	51.7 (46.3-57.0)

<sup>1</sup>Crude estimates are presented in the figure.

<sup>2</sup>Estimates for this Healthy People 2010 Leading Health Indicator are age-adjusted to the 2000 projected U.S. standard population using two age groups: 65-74 years and 75 years and over.