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Data Brief

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Vaccinations Among Adults Age 65 and Older: United States, 2024

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Key findings

Data from the National Health Interview Survey

- The percentage of adults age 65 and older who had an influenza vaccine in the past 12 months and the percentage who ever had a pneumonia vaccine were lower in 2024 (67.1% and 64.7%, respectively) compared with 2019 (70.5% and 67.0%, respectively).
- In 2024, 67.1% of older adults had an influenza vaccine in the past 12 months, with vaccination lowest among adults ages 65–74 (62.6%) compared with adults ages 75–84 (71.9%) and 85 and older (75.3%).
- The percentage of older adults who ever had a pneumonia vaccine was 64.7% and was higher for women (66.7%) compared with men (62.2%).

Introduction

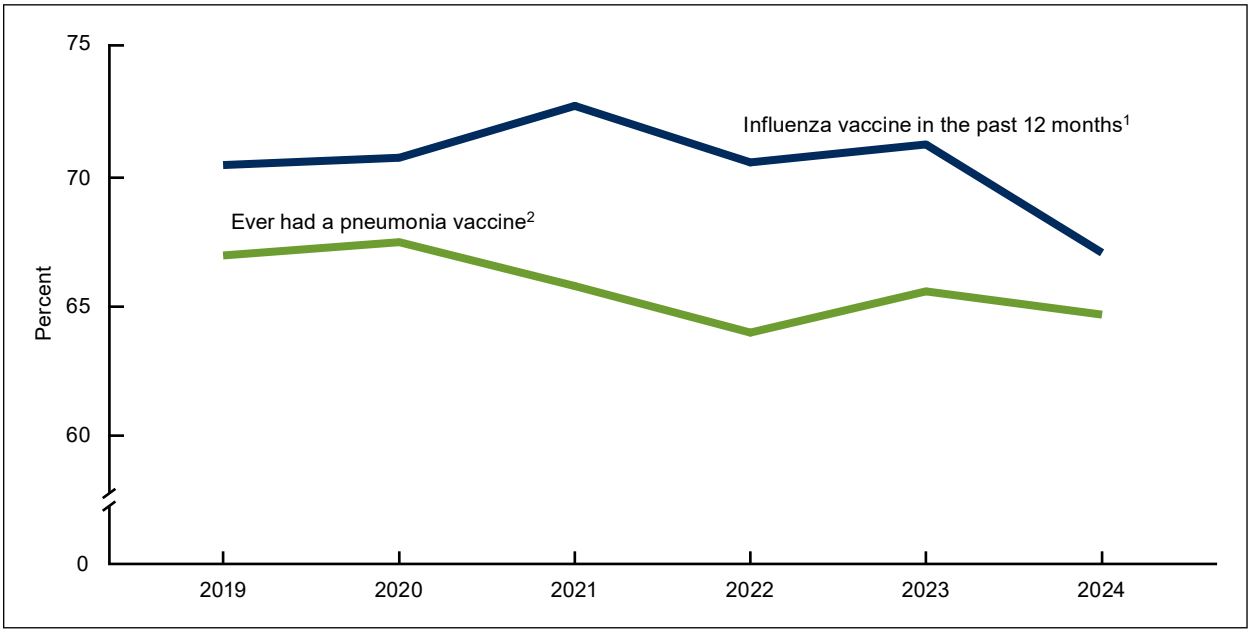
Older adults face higher risks of certain diseases because immune systems tend to weaken with age, and they also are more likely to have other underlying health conditions (1,2). The majority of deaths from flu and pneumonia occur in adults age 65 and older (3,4). Vaccination prevents illness and serious complications from these diseases (1,4). This report uses 2024 National Health Interview Survey (NHIS) data to present the percentage of adults age 65 and older who had an influenza vaccination in the past 12 months as well as the percentage who ever had a pneumonia vaccination, by trends over time and selected sociodemographic characteristics.

Trends

- The percentage of adults who had an influenza vaccine fluctuated between 2019 and 2024 but was lower in 2024 (67.1%) compared with 2019 (70.5%) (Figure 1, Table 1).

- The percentage of adults who ever had a pneumonia vaccine decreased from 2019 (67.0%) to 2024 (64.7%).

Figure 1. Percentage of adults age 65 and older who had an influenza vaccine in the past 12 months and who ever had a pneumonia vaccine: United States, 2019–2024

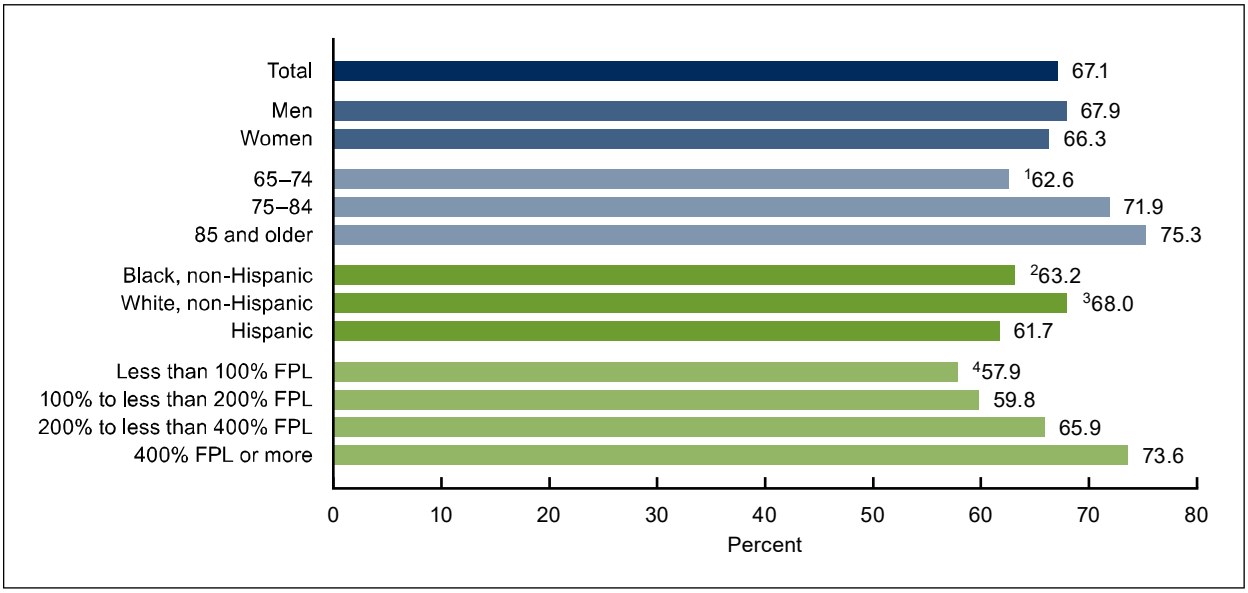


[1]Significant quadratic trend by year ($p < 0.05$).
[2]Significant decreasing linear trend by year ($p < 0.05$).
NOTES: Influenza vaccination is based on a yes response to the survey question, "There are two types of flu vaccinations. One is a shot, and the other is a spray, mist, or drop in the nose. During the past 12 months, have you had a flu vaccination?" Pneumonia vaccination is based on a yes response to the survey question, "A pneumonia shot is also known as a pneumococcal vaccine. Have you ever had a pneumonia shot?" Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2019–2024.

Influenza vaccine

- In 2024, the percentage of adults who had an influenza vaccine in the past 12 months was similar between men (67.9%) and women (66.3%) (Figure 2, Table 2).
- Adults ages 65–74 (62.6%) were less likely than adults ages 75–84 (71.9%) or 85 and older (75.3%) to have had an influenza vaccine.
- White non-Hispanic (subsequently, White) adults were more likely to have had an influenza vaccine (68.0%) than Black non-Hispanic (subsequently, Black) (63.2%) and Hispanic (61.7%) adults.
- The percentage of adults who had an influenza vaccine increased with increasing family income as a percentage of the federal poverty level (FPL), ranging from 57.9% in those with incomes less than 100% FPL to 73.6% in those with incomes of 400% FPL or more.

Figure 2. Percentage of adults age 65 and older who had an influenza vaccine in the past 12 months, by sex, age group, race and Hispanic origin, and family income: United States, 2024

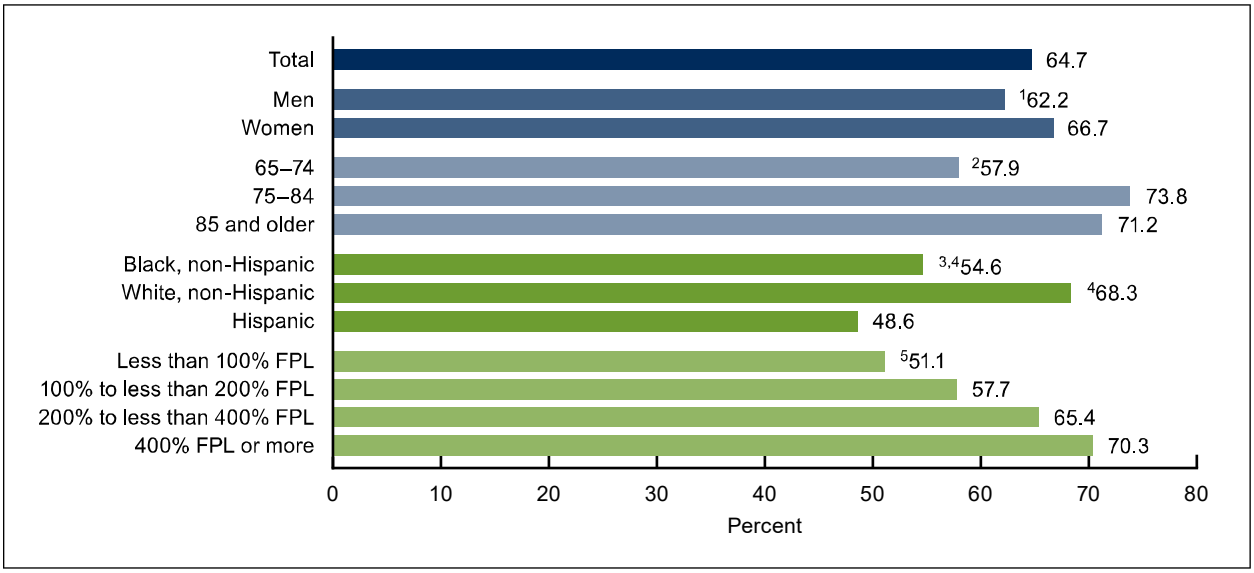


[1]Significantly lower than adults ages 75–84 and 85 and older ($p < 0.05$).
[2]Significantly different from White non-Hispanic adults ($p < 0.05$).
[3]Significantly different from Hispanic adults ($p < 0.05$).
[4]Significant increasing linear trend by family income ($p < 0.05$).
NOTES: Based on a yes response to the survey question, "There are two types of flu vaccinations. One is a shot, and the other is a spray, mist, or drop in the nose. During the past 12 months, have you had a flu vaccination?" Family income is expressed as a percentage of the federal poverty level (FPL), which was calculated from the family's income in the previous calendar year and family size using the U.S. Census Bureau's poverty thresholds. Adults of Hispanic origin may be of any race. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Pneumonia vaccine

- In 2024, women (66.7%) were more likely than men (62.2%) to have ever had a pneumonia vaccine (Figure 3, Table 3).
- Adults ages 65–74 (57.9%) were less likely than adults ages 75–84 (73.8%) or those age 85 and older (71.2%) to have ever had a pneumonia vaccine.
- White adults were more likely to have ever had a pneumonia vaccine (68.3%) followed by Black (54.6%) and Hispanic (48.6%) adults.
- The percentage of adults age 65 and older who ever had a pneumonia vaccine increased with increasing family income, ranging from 51.1% in those with incomes less than 100% FPL to 70.3% in those with incomes of 400% FPL or more.

Figure 3. Percentage of adults age 65 and older who ever had a pneumonia vaccine, by sex, age group, race and Hispanic origin, and family income: United States, 2024



[1]Significantly different from women ($p < 0.05$).
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[4]Significantly different from Hispanic adults ($p < 0.05$).
[5]Significant increasing linear trend by family income ($p < 0.05$).
NOTES: Based on a yes response to the survey question, "A pneumonia shot is also known as a pneumococcal vaccine. Have you ever had a pneumonia shot?" Family income is expressed as a percentage of the federal poverty level (FPL), which was calculated from the family's income in the previous calendar year and family size using the U.S. Census Bureau's poverty thresholds. Adults of Hispanic origin may be of any race. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Summary

This report describes the percentage of adults age 65 and older in 2024 who had an influenza vaccine in the past 12 months (67.1%) as well as the percentage who ever had a pneumonia vaccine (64.7%), by selected sociodemographic characteristics using data from the 2024 NHIS. The percentage of adults age 65 and older who had an influenza vaccine in the past 12 months and the percentage who ever had a pneumonia vaccine were lower in 2024 compared with 2019. Women were more likely than men to have ever received a pneumonia vaccine, but no significant differences were seen by sex for receipt of an influenza vaccine. White adults were more likely than Black and Hispanic adults to have received an influenza vaccine in the past 12 months and also to have ever had a pneumonia vaccine. For both vaccines, the percentage vaccinated increased as family income increased.

Definitions

Family income as a percentage of federal poverty level (FPL): Based on the federal poverty level, which was calculated from the family's income in the previous calendar year and family size using the U.S. Census Bureau's poverty thresholds (5). Family income was imputed when missing (6).

Influenza vaccine: Based on a yes response to the survey question, “There are two types of flu vaccinations. One is a shot, and the other is a spray, mist, or drop in the nose. During the past 12 months, have you had a flu vaccination?”

Pneumonia vaccine: Based on a yes response to the survey question, “A pneumonia shot is also known as a pneumococcal vaccine. Have you ever had a pneumonia shot?” Pneumonia vaccines protect against pneumococcal disease, which includes a wide range of infections caused by pneumococcus bacteria (7). Guidelines for pneumonia vaccination have changed over time, and recommendations on the number of shots needed vary depending on the specific vaccine administered. Some people received more than one pneumonia shot.

Race and Hispanic origin: Adults categorized as Hispanic may be of any race or combination of races. Non-Hispanic adults categorized as Black or White indicated one race only. Estimates for non-Hispanic adults of races other than Black and White are not shown but are included in total estimates.

Data source and methods

Data from the 2024 NHIS were used for this analysis. NHIS is a nationally representative household survey of the U.S. civilian noninstitutionalized population. It is conducted continuously throughout the year by the National Center for Health Statistics (NCHS). Interviews are typically initiated face-to-face in respondents’ homes with follow-ups conducted over the telephone as needed (8). For more information about NHIS, visit https://www.cdc.gov/nchs/nhis.htm. Influenza estimates in this report are based on interviews conducted in 2024 and reflect vaccination coverage in the past 12 months. Other vaccination estimates are available from the Centers for Disease Control and Prevention (CDC) but differ from the estimates shown in this report mainly due to differences in reporting timeframe (9,10).

Point estimates and corresponding variances for this analysis were calculated using SAS-callable SUDAAN software (11) to account for the complex sample design of NHIS. All estimates are based on self-report and meet NCHS data presentation standards for proportions (12). Differences between percentages were evaluated using two-sided significance tests at the 0.05 level. Linear and quadratic trends by year and family income were evaluated using orthogonal polynomials in logistic regression.

About the authors

Ellen A. Kramarow and Nazik Elgaddal are with the National Center for Health Statistics, Division of Analysis and Epidemiology.

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Figure tables

Data table for Figure 1. Percentage of adults age 65 and older who had an influenza vaccine in the past 12 months and who ever had a pneumonia vaccine: United States, 2019–2024

Year	Influenza vaccine in the past 12 months[1]		Ever had a pneumonia vaccine[2]	
	Percent (95% confidence interval)	Standard error	Percent (95% confidence interval)	Standard error
2019	70.5 (69.3–71.7)	0.6	67.0 (65.7–68.4)	0.7
2020	70.8 (69.5–72.0)	0.6	67.5 (66.0–68.9)	0.7
2021	72.8 (71.6–73.9)	0.6	65.8 (64.4–67.2)	0.7
2022	70.6 (69.4–71.7)	0.6	64.0 (62.7–65.4)	0.7
2023	71.3 (70.3–72.4)	0.5	65.6 (64.4–66.7)	0.6
2024	67.1 (65.9–68.2)	0.6	64.7 (63.4–65.9)	0.6

[1]Significant quadratic trend by year ($p < 0.05$).
[2]Significant decreasing linear trend by year ($p < 0.05$).
NOTES: Influenza vaccination is based on a yes response to the survey question, “There are two types of flu vaccinations. One is a shot, and the other is a spray, mist, or drop in the nose. During the past 12 months, have you had a flu vaccination?” Pneumonia vaccination is based on a yes response to the survey question, “A pneumonia shot is also known as a pneumococcal vaccine. Have you ever had a pneumonia shot?” Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2019–2024.

Data table for Figure 2. Percentage of adults age 65 and older who had an influenza vaccine in the past 12 months, by sex, age group, race and Hispanic origin, and family income: United States, 2024

Selected characteristic	Percent (95% confidence interval)	Standard error
Total	67.1 (65.9–68.2)	0.6
Sex		
Men	67.9 (66.3–69.6)	0.8
Women	66.3 (64.8–67.9)	0.8
Age group		
65–74	[1]62.6 (61.1–64.2)	0.8
75–84	71.9 (70.0–73.7)	0.9
85 and older	75.3 (72.0–78.3)	1.6
Race and Hispanic origin		
Black, non-Hispanic	[2]63.2 (59.4–66.9)	1.9
White, non-Hispanic	[3]68.0 (66.8–69.2)	0.6
Hispanic	61.7 (57.4–65.9)	2.1
Family income		
Less than 100% FPL	[4]57.9 (53.1–62.6)	2.4
100% to less than 200% FPL	59.8 (57.1–62.3)	1.3
200% to less than 400% FPL	65.9 (63.9–67.9)	1.0
400% FPL or more	73.6 (71.8–75.3)	0.9

[1]Significantly lower than adults ages 75–84 and 85 and older ($p < 0.05$).
[2]Significantly different from White non-Hispanic adults ($p < 0.05$).
[3]Significantly different from Hispanic adults ($p < 0.05$).
[4]Significant increasing linear trend by family income ($p < 0.05$).
NOTES: Based on a yes response to the survey question, "There are two types of flu vaccinations. One is a shot, and the other is a spray, mist, or drop in the nose. During the past 12 months, have you had a flu vaccination?" Family income is expressed as a percentage of the federal poverty level (FPL), which was calculated from the family's income in the previous calendar year and family size using the U.S. Census Bureau's poverty thresholds. Adults of Hispanic origin may be of any race. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

Data table for Figure 3. Percentage of adults age 65 and older who ever had a pneumonia vaccine, by sex, age group, race and Hispanic origin, and family income: United States, 2024

Selected characteristic	Percent (95% confidence interval)	Standard error
Total	64.7 (63.4–65.9)	0.6
Sex		
Men	[1]62.2 (60.5–64.0)	0.9
Women	66.7 (65.1–68.2)	0.8
Age group		
65–74	[2]57.9 (56.3–59.5)	0.8
75–84	73.8 (71.9–75.6)	0.9
85 and older	71.2 (67.6–74.6)	1.8
Race and Hispanic origin		
Black, non-Hispanic	[3,4]54.6 (50.7–58.4)	2.0
White, non-Hispanic	[4]68.3 (67.1–69.6)	0.6
Hispanic	48.6 (44.7–52.6)	2.0
Family income		
Less than 100% FPL	[5]51.1 (46.7–55.5)	2.2
100% to less than 200% FPL	57.7 (55.0–60.3)	1.3
200% to less than 400% FPL	65.4 (63.2–67.5)	1.1
400% FPL or more	70.3 (68.4–72.2)	0.9

[1]Significantly different from women ($p < 0.05$).
[2]Significantly lower than adults ages 75–84 and 85 and older ($p < 0.05$).
[3]Significantly different from White non-Hispanic adults ($p < 0.05$).
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NOTES: Based on a yes response to the survey question, "A pneumonia shot is also known as a pneumococcal vaccine. Have you ever had a pneumonia shot?" Family income is expressed as a percentage of the federal poverty level (FPL), which was calculated from the family's income in the previous calendar year and family size using the U.S. Census Bureau's poverty thresholds. Adults of Hispanic origin may be of any race. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 2024.

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