

Influenza Vaccination Among Adults with Diabetes in Florida, 2002



Bureau of Epidemiology
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Each year, about 20,000 Americans die due to influenza or influenza-related pneumonia.¹ Vaccination of persons at risk for complications from influenza is a key public health strategy for preventing associated morbidity and mortality. Influenza, or “flu,” is an infection of the respiratory tract that can affect millions of people every year. Influenza affects all age groups and causes moderate to severe illness. Risk factors include older-age and medical conditions that increase the risk for complications from infections. People with diabetes² may be unaware that their disease can make their immune system more vulnerable to severe cases of influenza. Influenza can mean longer illness, hospitalization, even death for people with diabetes. Vaccination against influenza has been effective in reducing hospital admissions during influenza epidemics. Therefore, receiving an annual influenza vaccination³ has the potential to reduce the risk of complications associated with diabetes.

Data from the 2002 Florida County Behavioral Risk Factor Surveillance System (BRFSS) survey were used for this analysis and are based on a sample size of 34,551 respondents, of whom 3,582 reported being told by their doctors that they have diabetes, which is the definition of “diabetes” used in this report. The focus of this report is flu vaccination among adults with diagnosed diabetes in Florida.

Influenza vaccination among adults in Florida.

The prevalence of receiving influenza vaccination among adults diagnosed with diabetes (44.9 percent) is significantly higher than among adults without diabetes (24.5 percent).

Influenza vaccination among adults diagnosed with diabetes. In general, every person diagnosed with diabetes needs a flu shot each year, yet over 50 percent of adults with diabetes did not receive vaccination in 2002. (See Table 1.)

The prevalence of receiving influenza vaccination is significantly different by age. Adults diagnosed with diabetes between the ages 18 and 44 years have a lower prevalence (21.9 percent) of receiving vaccination than adults ages 45 to 64 years (36.4 percent) and adults age 65 years and older (60.2 percent). (See Figure 1.)

The prevalence of receiving vaccination is different among racial/ethnic groups. Overall, Hispanics with diabetes are significantly less likely to receive vaccination (13.2 percent) than non-Hispanic Whites (49.9 percent) and non-Hispanic Blacks (39.7 percent). Specifically, Hispanic men are significantly less likely to receive vaccination (11.0 percent) than non-Hispanic White men (51.8 percent). Hispanic women are significantly less likely to receive vaccination (17.2 percent) than non-Hispanic White women (48.0 percent). (See Figure 2.)

Receiving influenza vaccination differs by marital status: never married adults with diabetes are significantly less likely to receive vaccination (27.8 percent) than adults who are married/living together (45.8 percent), or adults who are divorced/widowed/separated (49.0 percent).

The prevalence of receiving a flu vaccination among adults with diabetes does not differ significantly by income or education.

Figure 1: Prevalence of Receiving Influenza Vaccination Among Adults with Diabetes, Florida, 2002

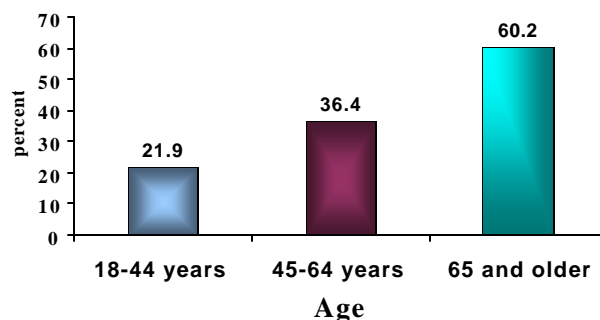
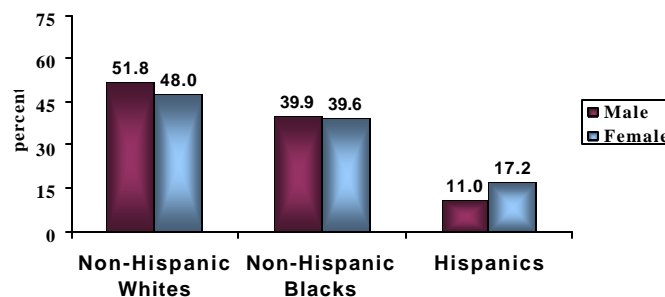


Figure 2: Prevalence of Receiving Vaccination Among Adults with Diabetes, Florida, 2002



Conclusion: Receiving influenza vaccination is more prevalent among adults with diabetes than among adults without diabetes. Among people with diabetes, Hispanic men and women, young adults, and the never married are less likely to receive influenza vaccination than are non-Hispanics, adults middle-aged and older, and the married and divorced.

The Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS survey is a telephone survey of civilian, non-institutionalized adults (age 18 and older) with telephones, designed to monitor trends in risk behaviors related to preventable chronic diseases and conditions. Respondents are asked about health status, including diabetes and blood pressure; health behaviors, such as nutrition, physical activity, tobacco, and alcohol use; use of screening services, such as mammography; and access to health insurance and health care.

The BRFSS data are weighted. Because the BRFSS is a random survey, the results from the county survey are slightly different than results from the state survey. For more information about the Florida BRFSS, please visit our web site at http://www.doh.state.fl.us/disease_ctrl/epi/brfss/index.htm. For more information about the strengths and limitations of the BRFSS, please visit The Centers for Disease Control and Prevention web site at www.cdc.gov/brfss/.

¹For more information about influenza, visit the National Foundation for Infectious Diseases web site at <http://www.nfid.org/library/influenza/what/index.html>.

²Diabetes is assessed by the following question, "Have you ever been told by a doctor that you have diabetes?"

³Influenza vaccination is measured by the following question, "During the past 12 months, have you had a flu shot?"

*Confidence intervals for Table 1 are constructed utilizing the Statistical Analysis Software (SAS) 9.1 version.

Table 1: Prevalence of receiving flu shot among adults without and with diabetes, Florida, 2002

	Adults without Diabetes			Adults with Diabetes		
	%	95% CI*		%	95% CI*	
All	24.5	23.5	25.5	44.9	41.1	48.8
Sex						
Male	25.1	23.5	26.6	45.7	40.1	51.3
Female	24.0	22.7	25.4	44.2	39.0	49.4
Age Group						
18-44	11.6	10.5	12.8	21.9	13.7	30.2
45-64	23.4	21.7	25.2	36.4	30.6	42.3
65+	56.0	53.5	58.5	60.2	55.0	65.3
Race/Ethnicity						
White, non-Hispanic	28.1	27.0	29.2	49.9	46.1	53.8
Black, non-Hispanic	17.2	13.9	20.5	39.7	28.4	51.0
Hispanic	14.3	10.6	18.0	13.2	3.8	22.7
Marital Status						
Never Married	14.9	12.6	17.1	27.8	16.5	39.1
Married/cohabitating	25.5	24.2	26.8	45.8	40.7	51.0
Divorced/ widowed/ separated	29.6	27.6	31.6	49.0	43.1	54.8
Education						
Less than high school	22.5	19.0	26.1	41.3	32.1	50.6
High school, GED	24.1	22.3	25.8	48.0	41.2	54.9
More than high school	25.1	23.7	26.4	44.4	39.2	49.6
Annual Household Income						
Less than \$25,000	22.9	20.7	25.0	44.2	38.2	50.3
\$25,000—\$50,000	24.1	22.2	25.9	44.2	36.7	51.7
More than \$50,000	21.3	19.6	22.9	50.8	41.6	59.9

For more information about the BRFSS survey, please contact:

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