Influenza Vaccination, Florida, 2006

Florida Department of Health

INTRODUCTION

Influenza (flu) is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness and can occur in large epidemics with increased mortality. One of the best ways to prevent influenza is to get an influenza vaccination annually.

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based random telephone survey of non-institutionalized adults, designed to monitor risk behaviors, chronic illness, and access to health care. In 2006, the Florida BRFSS surveyed 10,726 adults statewide with a response rate of 51.2%. Among the respondents, 3,465 (28%) reported receiving a flu vaccination during the past 12 months. BRFSS survey data are adjusted, or "weighted," so that the resulting estimates can be generalized to all Florida adults.

This report provides overall prevalence of flu vaccination among Florida adults and among high-risk populations such as adults with chronic conditions and healthcare workers with direct patient contact. The main reasons given by respondents for not receiving an influenza vaccination during the current flu season are presented in this report. Receiving an influenza vaccination is defined as adults who had a flu shot injected into their arms or had a flu vaccine sprayed into their noses during the past 12 months. High-risk adults with chronic conditions include adults who currently have lung problems, including asthma; heart problems; diabetes; kidney problems; weakened immune systems caused by a chronic illness such as cancer, HIV/AIDS, or medicines such as steroids; or sickle cell anemia and other anemia problems. High-risk healthcare workers are full-time, part-time, or volunteer workers who currently work in a healthcare facility such as a medical clinic, hospital, or nursing home; and have direct face-to-face or hands-on contact with patients as a part of their routine work.

RESULTS

1. Prevalence of Influenza Vaccination

Twenty-eight percent of Florida adults received a flu vaccination in the past 12 months. Compared to their counterparts, the prevalence of receiving a flu vaccination among adults was higher among:

- Non-Hispanic Whites (32%).
- Adults age 65 and older (61%).
- Adults who were formerly married (including divorced, widowed, and separated) (36%).
- Adults who have healthcare coverage (32%).
- Adults who could afford to see a doctor when needed (31%).

The prevalence of having had a flu vaccination increased with increasing age. The lowest prevalence rate was among adults age 18-44 (14%), adults who have not had healthcare coverage (12%), and adults who could not see a doctor when needed because of cost (13%). There were no significant differences in the prevalence of adults receiving a flu vaccination by sex, education, household income, and residential region.

2. Prevalence of Influenza Vaccination among High-Risk Adults with Chronic Conditions

Among Florida adults, 20% were considered to be high-risk populations because of chronic health conditions. The prevalence of receiving a flu vaccination among this high-risk population was 44% (Figure 1), which was significantly greater than the prevalence among adults without high-risk chronic conditions (25%).

The prevalence of receiving a flu vaccination among high-risk adults with chronic conditions was higher among:

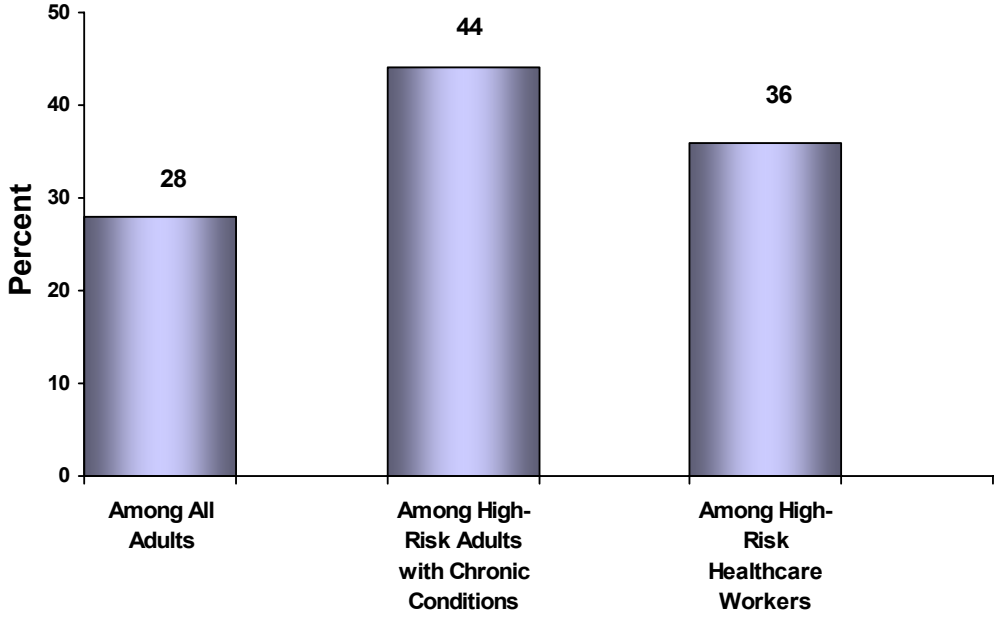
- Non-Hispanic Whites (48%).
- Adults age 65 and older (70%).
- Adults who were formerly married (including divorced, widowed, and separated) (49%).
- Adults who have healthcare coverage (49%).
- Adults who could afford to see a doctor when needed (49%).

The prevalence of receiving a flu vaccination increased with increasing age. The lowest prevalence rate among high-risk adults with chronic conditions was adults age 18-44 (22%), adults who have not had healthcare coverage (12%) and adults who could not see a doctor when needed because of cost (21%). There were no significant differences in the prevalence of high-risk adults with chronic conditions receiving a flu vaccination by sex, education, household income, and residential region.

3. Prevalence of Influenza Vaccination among High-Risk Healthcare Workers

Approximately 5.6% of Florida adults were high-risk healthcare workers. Among these healthcare workers, 36% received a flu vaccination (Figure 1). The prevalence among high-risk healthcare workers was greater than that among healthcare workers who did not have direct contact with patients (36% vs. 28%).

Figure 1. Percentage of Receiving Influenza Vaccination among Adults and among High-Risk Population, Florida, 2006



Compared to their counterparts, the prevalence of receiving a flu vaccination among high-risk healthcare workers was higher among:

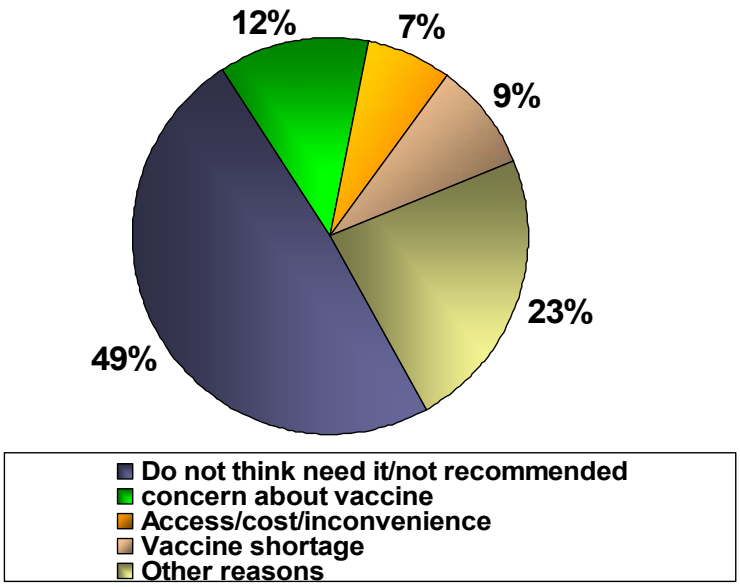
- Males (53%).
- Adults whose household income was more than $50,000 (47%).

There were no significant differences in the prevalence of receiving a flu vaccination among high-risk healthcare workers by race/ethnicity, education, marital status, and residential region.

4. Reasons Why Adults Did Not Have a Flu Vaccination in the Past 12 Months (Figure 2)

Almost half (49%) of adults who did not receive a flu vaccination thought that they did not need a flu vaccination or that it was not recommended. One in eight adults (12%) had concerns about the vaccine such as possible side effects, causing flu, or the belief that the vaccine does not really work. Nine percent of adults cited vaccine shortage as the reason for not receiving a flu vaccination; they fall into three subcategories: 1) wanted to save the vaccine for people who needed it more (3.6%), 2) tried to find vaccine, but could not get one (4.6%), or 3) thought they were not eligible to receive the vaccine (0.8%). Another 7% of adults were concerned about access to, cost, or inconvenience with getting the vaccine. Twenty-three percent of adults had other reasons for not receiving a flu vaccination.

Figure 2. Main Reasons for Not Receiving a Flu Vaccination, Florida, 2006



Adults who did not think that they needed a flu vaccination

Among Florida adults who did not receive a flu vaccination in the current flu season, there were significant differences in the percentages of adults who thought that flu vaccination was not needed:

- More males (55%) than females (45%).
- More adults ages 18-44 years old (52%) or adults ages 45-64 (48%) than adults ages 65 and older (38%).

- More adults with a household income more than $50,000 (54%) than adults with a household income less than $25,000 (43%).
- More single adults (55%) than adults who were formerly married (including divorced, widowed, and separated) (42%).
- More adults who could afford to see a doctor when needed (52%) than adults who could not afford to see a doctor when needed (37%).

Adults who were concerned about side effects or effectiveness of the vaccine
Twelve percent of adults who did not receive a flu vaccination were concerned about the side effects or effectiveness of the vaccine. The percentage of adults who had this type of concerns was:

- Higher among females (13%) than among males (9%).
- Higher among non-Hispanic Whites (13%) and non-Hispanic Blacks (13%) than among Hispanics (5%).
- The highest among adults age 65 and older (17%), and the lowest among adults ages 18-44 (9%).
- Higher among adults who had healthcare insurance (13%) than among adults who had no healthcare insurance (7%).

Adults who did not receive a flu vaccination because of access, cost, or inconvenience
Among Florida adults who did not receive a flu vaccination in the current flu season, the percentages of adults who reported access/cost/inconvenience as the main reason was:

- Higher among Hispanics (13.6%) than non-Hispanic Whites (5%) and non-Hispanic Blacks (4.2%).
- Higher among adults with less than a high school education (10%) than adults with a college education (3.6%).
- Higher among adults with a household income less than $25,000 (11%) than adults with a household income more than $50,000 (3%).
- Higher among adults who had no healthcare coverage (16%) than adults who had healthcare coverage (4%).
- Higher among adults who could not afford to see a doctor when needed (21%) than adults who could afford to see a doctor when needed (4%).

Adults who were concerned about vaccine shortage
Nine percent of adults cited vaccine shortage as the reason for not receiving a flu vaccination. The significant differences in the percentages of adults who were concerned about vaccine shortage were:

- More adults age 65 and older (13%) than adults ages 45-64 (10%) or adults ages 18-44 (7%).
- More adults with a household income more than $50,000 (11%) than adults with a household income between $25,000 and $49,999 (6.7%).
- More adults who had healthcare coverage (10%) than adults who had no healthcare coverage (7%).

Table 1: Prevalence of Receiving Influenza Vaccination among Florida Adults, 2006

	Prevalence	95% C.I.		
Total	27.9	26.7	29.2	
Sex				
Male	28.2	26.1	30.2	
Female	27.7	26.3	29.2	
Race/Ethnicity				*
NHW	32.1	30.6	33.6	
NHB	20.2	15.9	24.4	
Hispanic	20.6	17.4	23.7	
Age				*
18-44	14.4	12.4	16.4	
45-64	23.8	22.1	25.6	
65 +	61.6	59.4	63.8	
Education				
<high school	26.5	22.2	30.7	
High school	26.6	24.4	28.9	
Some college	27.4	25.0	29.7	
College	30.3	28.2	32.5	
Household Income				
<$25,000	29.1	26.4	31.8	
$25,000-$49,999	27.3	25.0	29.7	
>$50,000	25.2	23.2	27.2	
Marital Status				*
Married	27.7	26.2	29.2	
Divorced, widowed, separated	36.3	34.1	38.5	
Single	18.0	13.8	22.2	
Healthcare Coverage				*
Yes	32.1	30.7	33.5	
No	11.7	9.1	14.3	
Can Not See a Doctor Because of Cost				*
Yes	12.7	10.2	15.2	
No	30.7	29.3	32.1	
Region				
Rural	25.4	21.4	29.5	
Urban	28.3	26.9	29.6	

Table 2: Prevalence of Receiving Influenza Vaccination among Florida High-Risk Adults with Chronic Conditions, 2006

	Prevalence	95% C.I.		
Total	43.7	39.0	48.3	
Sex				
Male	45.4	37.7	53.2	
Female	42.0	36.7	47.4	
Race/Ethnicity				*
NHW	47.8	42.6	52.9	
NHB	22.8	11.4	34.1	
Hispanic	46.1	29.9	62.3	
Age				*
18-44	22.2	11.5	32.9	
45-64	35.8	29.1	42.6	
65 +	69.8	64.0	75.5	
Education				
<high school	45.9	31.1	60.8	
High school	44.2	36.2	52.3	
Some college	38.4	30.1	46.8	
College	47.5	39.4	55.5	
Household Income				
<$25,000	41.9	34.4	49.5	
$25,000-$49,999	46.4	37.9	54.8	
>$50,000	39.0	30.8	47.2	
Marital Status				*
Married	46.1	40.0	52.2	
Divorced, widowed, separated	48.6	41.2	55.9	
Single	20.0	8.9	31.0	
Healthcare Coverage				*
Yes	49.1	44.2	54.0	
No	12.0	4.5	19.5	
Can Not See a Doctor Because of Cost				*
Yes	21.4	12.2	30.6	
No	48.5	43.4	53.5	
Region				
Rural	44.1	33.3	54.9	
Urban	43.8	39.0	48.6	

Table 3: Prevalence of Receiving Influenza Vaccination among Florida High-Risk Healthcare Workers, 2006

	Prevalence	95% C.I.		
Total	36.1	27.7	44.5	
Sex				*
Male	52.9	34.8	71.1	
Female	30.4	21.9	39.0	
Race/Ethnicity				
NHW	38.6	27.9	49.3	
NHB	30.0	8.5	51.4	
Hispanic	40.1	17.5	62.8	
Age				
18-44	35.9	24.2	47.5	
45-64	31.6	19.1	44.2	
65 +	.	.	.	
Education				
<high school	0	0	0	
High school	23.2	7.3	39.1	
Some college	37.5	23.1	52.0	
College	42.6	30.0	55.2	
Household Income				*
<$25,000	24.3	5.2	43.4	
$25,000-$49,999	24.7	10.6	38.7	
>$50,000	46.5	34.4	58.7	
Marital Status				
Married	39.4	28.2	50.6	
Divorced, widowed, separated	35.3	20.7	49.9	
Single	24.1	5.0	43.1	
Healthcare Coverage				
Yes	39.0	30.1	47.8	
No	.	.	.	
Can Not See a Doctor Because of Cost				
Yes	26.2	6.1	46.3	
No	38.1	28.9	47.3	
Region				
Rural	16.7	1.7	31.8	
Urban	36.3	27.5	45.1	

* P value less than 0.05

. means the sample size is smaller than 30

For more information about the BRFSS, please contact: Ms. Melissa Murray, M.S., BRFSS Coordinator, at 850.245.4444 Ext. 2445, or by e-mail at Melissa_Murray@doh.state.fl.us. For more information on this report, please contact Ms. Bo (Bonnie) Yu, M.A, M.A.S., Statistician, at 850.245.4444 Ext. 2407, or by e-mail at Bonnie_Yu@doh.state.fl.us.