

# 2007 Florida Behavioral Risk Factor Surveillance System (BRFSS) Data Report

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Supplemental Report No. 6

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## Tobacco Use Among Floridians With Diabetes: Data From the 2007 BRFSS and Tobacco Callback Survey



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# Tobacco Use Among Floridians With Diabetes: Data From the 2007 BRFSS and Tobacco Callback Survey

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## Executive Summary

Nationally and in Florida, tobacco use and diabetes are two key public health concerns. Smoking decreases the amount of oxygen reaching tissues, increases cholesterol levels, increases the likelihood of having nerve damage, increases blood pressure, increases blood glucose levels, and doubles the risk of cardiovascular disease among those with diabetes. Adults with diabetes who smoke are three times more likely than their non-smoking counterparts to die from cardiovascular diseases.

This report examines data from the 2007 Behavioral Risk Factor Surveillance System and the 2007 Tobacco Callback Survey to describe the prevalence of current smoking, cessation, readiness to quit, and risk perception among those with diabetes. Overall, nearly 16% of adults with diabetes were current smokers. The prevalence of current smoking among those with diabetes varied significantly by age group, income, and marital status. When controlling for a variety of socio-demographic variables, non-Hispanic whites with diabetes were 40% more likely to smoke than were their non-Hispanic black and Hispanic counterparts.

Quitting smoking typically requires many attempts. Among current smokers with diabetes, nearly 60% stopped smoking for at least one day in the past 12 months because they were trying to quit smoking. The proportion quitting for at least one day was significantly higher among non-Hispanic blacks and Hispanics compared to non-Hispanic whites. Over half cited mental health factors (mood swings, depression, or stress) as the main reason for starting to smoke again after attempting to quit. About 28% of current smokers with diabetes are prepared to quit smoking in the next 30 days. This proportion varies significantly by race with about 46% of non-Hispanic blacks in the preparation stage, compared to 23% of non-Hispanic whites.

Healthcare providers play an important role in smoking cessation. About 93% of current smokers with diabetes saw a doctor or dentist in the past year. Of these, about 95% were advised to quit smoking by their provider. The proportion receiving this advice varied significantly by age group.

Risk perception can play an important role in changing smoking-related behaviors. Perceived risk from smoking or secondhand smoke among those with diabetes varied by sex and age group. The proportion with high risk perception was significantly higher among females compared to males and among those 18-44 years of age compared to their older counterparts.

The Florida Department of Health houses two well-established programs – the Diabetes Prevention and Control Program and the Tobacco Prevention Program – to address these two concerns. This report provides vital information about diabetes- and smoking-related behaviors and insights into the attitudes and beliefs of current smokers – information vital for developing statewide and small-area initiatives.

## Introduction

This report examines behaviors among Florida adult current smokers with diabetes. Independently, diabetes and smoking have many adverse health effects. Tobacco use is the leading avoidable cause of disease and premature death in the United States. Smoking adversely affects every organ of the body and has been associated with a number of diseases, most notably cancer, respiratory diseases, and cardiovascular conditions, such as heart attack and stroke (CDC, 2004). In Florida in 2004 there were nearly 34,000 new cases of tobacco-related cancers and nearly 12,000 deaths attributable to cigarette use (Huang et al., 2008). Overall, the prevalence of cigarette smoking among Florida adults has decreased over the past two decades as has tobacco-related morbidity and mortality (CHARTS, 2008).

From 1990 to 2007, the prevalence of diabetes among Florida adults increased 52.6% from 5.7% to 8.7% (CDC, 2008). This percentage accounts for diagnosed cases only. When including estimated undiagnosed cases, about one-in-ten adults have the disease. In 2006 diabetes was the sixth leading cause of death in Florida, accounting for 5,137 deaths with diabetes listed as the underlying cause of death. In that same year, nearly 5,500 non-traumatic lower extremity amputations and over 480,000 hospitalizations were attributable to diabetes in the state (CHARTS, 2008).

Among people with diabetes, the adverse cardiovascular health effects from smoking are exacerbated because diabetes is also associated with cardiovascular disease. Smoking decreases the amount of oxygen reaching tissues, increases cholesterol levels, increases the likelihood of having nerve damage, increases blood pressure, increases blood glucose levels, and doubles the risk of cardiovascular disease among those with diabetes. Overall, adults with diabetes who smoke are three times more likely than their non-smoking counterparts to die from cardiovascular diseases (ADA, 2004). Furthermore, smoking has been found to be associated with an increased risk of foot ulcers (Reiber, Boyko, & Smith, 1995), which may lead to infections and amputations.

Nationally and in Florida, tobacco use and diabetes are two key public health concerns. The Florida Department of Health houses two well-established programs – the Diabetes Prevention and Control Program and the Tobacco Prevention Program – to address these two concerns. Because these programs have established infrastructures and related health outcomes, they are positioned to develop collaborative initiatives to decrease the prevalence of current smoking among those with diabetes. This report provides vital information gleaned from the Florida Behavioral Risk Factor Surveillance System (BRFSS) and the Florida Tobacco Callback Survey. These important sources of data offer information about diabetes- and smoking-related behaviors and insights into the attitudes and beliefs of current smokers – information vital for developing statewide and small-area initiatives. Subsequent data collection efforts can be used to monitor key indicators and evaluate program initiatives.

## Methods

The data used for this report are from the 2007 Florida BRFSS and the 2007 Florida Tobacco Callback Survey. The BRFSS is an on-going, cross-sectional, population-based telephone survey of non-institutionalized adults 18 years of age and older in randomly selected households in the United States and the U.S. territories. The BRFSS elicits from respondents information pertaining to a variety of disease states, risk factors, preventive health practices, and emerging health issues. In addition, demographic and socioeconomic data are collected. BRFSS data are collected monthly through telephone interviews and aggregated and weighted annually by the Centers for Disease Control and Prevention (CDC) Behavioral Sciences Branch. Adults 18 years of age and older are randomly selected from eligible households for interview.

The 2007 Florida BRFSS had nearly 40,000 respondents. A person was defined as a diabetes case if they answered “Yes” to the following question: “Have you ever been told by a doctor that you have diabetes?” Women that answered “Yes – but only told during pregnancy” and respondents indicating they had been told they have pre-diabetes were not included in this definition. The BRFSS does not discern whether a person has type 1 or type 2 diabetes. A person was defined as a current smoker if they indicated they smoked at least 100 cigarettes in their lifetime and smoked on some or all of the 30 days prior to survey administration.

In 2007 BRFSS participants who were current smokers were asked if they would respond to questions from a second survey. Those who responded “yes” to this question comprised the population to whom the Tobacco Callback Survey was administered. Overall, 73% of the 8,230 current smokers who participated in the BRFSS agreed to be contacted again. Of those, 28.1% could not be contacted for follow-up and 1.7% had quit smoking. The remaining 3,560 participated in the follow-up survey, 43.3% of the original sample. The Tobacco Callback Survey data were merged by participant sequential number with the 2007 BRFSS data. As a result, the data collected for the BRFSS were available for each Tobacco Callback Survey participant. The data were re-weighted to account for non-response and the results can be generalized to Florida adult current smokers.

The data were managed and variables created using SAS version 9.1 (SAS, 2002-2003). Point estimates and 95% confidence intervals were calculated using SUDAAN version 9.0 (SUDAAN, 2004). Chi-square analyses were conducted to test for statistically significant associations between two variables. Statistically significant associations and/or rate differences have p-values less than or equal to 0.05. In some cases, logistic regression was used to determine the direction and magnitude of associations, controlling for multiple variables simultaneously.

## 2007 BRFSS Results

The prevalence of current smoking among those with diabetes (15.7%) was significantly less than smoking rates among those without diabetes (19.7%). Table 1 shows the prevalence of current smoking among adults with diabetes by the socio-demographic variables listed. The prevalence of current smoking among those with diabetes did not vary statistically significantly by sex, race/ethnicity, or education level. Figure 1 shows the prevalence of current smoking among adults with diabetes by age group, income, and marital status. Smoking rates among those with diabetes in the 65 years of age and older group were statistically significantly less than those in the younger age group. Overall, 8.6% of those aged 65 years and older currently smoked. About one-in-four adults with diabetes aged 18-44 years currently smoked and about

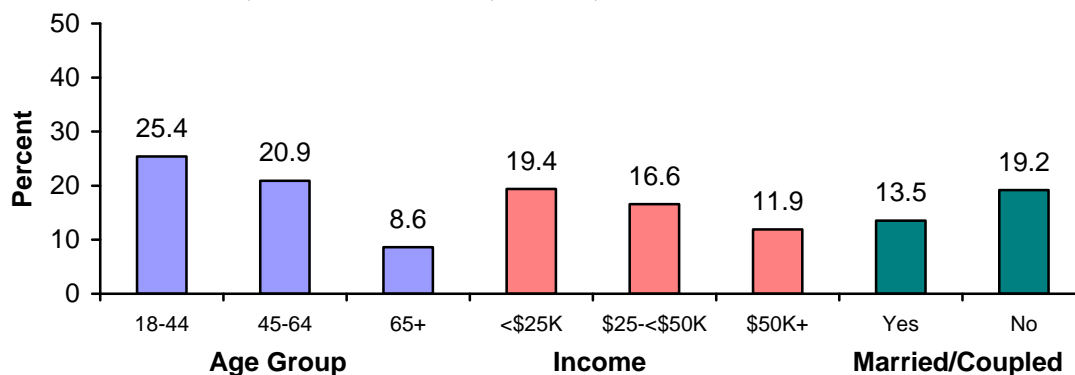
one-in-five adults with diabetes aged 45-64 years currently smoked. Smoking rates among adults with diabetes also varied statistically significantly by income and marital status. Adults with diabetes who earned \$50,000 or more per year had a current smoking prevalence rate 39% lower compared to those earning less than \$25,000 per year. The prevalence of current smoking among adults with diabetes who were married or living as an unmarried couple was 42% lower than their unmarried/uncoupled counterparts.

**Table 1. Percentage of adult current smokers with diabetes, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		15.7	13.5-18.2
Sex	Male	17.0	13.7-21.0
	Female	14.3	11.6-17.6
Race/Ethnicity	Non-Hispanic White	15.7	13.2-18.5
	Male	17.1	13.3-21.8
	Female	13.9	11.3-17.1
	Non-Hispanic Black	16.6	10.2-25.9
	Male	16.6	7.2-33.7
	Female	16.6	9.0-28.7
Hispanic		13.6	8.0-22.1
	Male	17.1	8.7-30.7
Age Group (Yrs.)	Female	9.9	4.1-22.2
	18-44	25.4	17.1-36.0
	45-64	20.9	17.1-25.2
	65+	8.6	6.3-11.7
Education	<High School (HS)	22.3	15.2-31.3
	HS / < 4 Yrs. College	14.4	11.1-18.6
	4+ Years College	14.7	12.0-18.0
Annual Income	< \$25,000	19.4	15.3-24.4
	\$25,000 - <\$50,000	16.6	12.7-21.5
	\$50,000+	11.9	8.4-16.6
Married or Unmarried Couple	Yes	13.5	10.9-16.5
	No	19.2	15.3-23.8

Source: 2007 Florida BRFSS

**Figure 1. Percentage of adult current smokers with diabetes, by age, income, and marital status, Florida, 2007**



Source: 2007 Florida BRFSS

To gain a better understanding of the associations between being a current smoker and the demographic variables listed in Table 1, logistic regression models were constructed to quantify these associations. Logistic regression models result in odds ratios that quantify the direction and strength of associations between variables, controlling for all of the variables in the model. Odds ratios are always positive numbers ranging from zero to infinity. Odds ratios less than 1.0 indicate a negative association and odds ratios greater than 1.0 indicate a positive association. For example, an odds ratio of 0.5 indicates a 50% decrease in likelihood and an odds ratio of 1.5 indicates a 50% increase in likelihood. The distance of the odds ratio from 1.0 quantifies the magnitude of the association. For example, an odds ratio of 2.1 represents a stronger association than an odds ratio of 1.5. Conversely, an odds ratio of 0.2 represents a stronger association than an odds ratio of 0.8. Odds ratios are statistically significant if the 95% confidence interval does not include 1.0.

When constructing the logistic models for this analysis using the variables listed in Table 1, only three variables were statistically significant: race/ethnicity, age group, and income. To increase the sample size for comparison, for this analysis non-Hispanic blacks and Hispanics were grouped into one race/ethnic category and referred to as “NH black/Hispanic”. Table 2 shows the results from the logistic regression analysis.

**Table 2. The odds (likelihood) of being a current smoker among adults with diabetes, controlling for race/ethnicity, age group, and income, Florida, 2007**

		All		Non-Hispanic Whites		NH Black/Hispanic	
		OR	CI	OR	CI	OR	CI
Race/Ethnicity	Non-Hisp. White	--	--	--	--	--	--
	NH Black/Hispanic	0.6	0.3 – 0.9	--	--	--	--
Age Group (Yrs.)	18-44	4.5	2.2 – 9.0	5.9	2.9 – 12.0	2.2	0.5 – 8.9
	45-64	4.0	2.3 – 6.7	5.8	3.7 – 9.0	1.2	0.4 – 3.7
	65+	--	--	--	--	--	--
Annual Income	< \$25,000	2.9	1.7 – 4.7	2.3	1.3 – 4.0	14.7	4.2 – 51.5
	\$25,000 - <\$50,000	1.9	1.1 – 3.1	1.8	1.1 – 3.2	6.8	1.8 – 25.2
	\$50,000+	--	--	--	--	--	--

OR = Odds Ratio; CI = 95% Confidence Interval; NH = Non-Hispanic

Source: 2007 Florida BRFSS

The likelihood of being a current smoker among adults with diabetes did not vary significantly by sex, education, or marital status; therefore, these variables were removed from the logistic regression model. The likelihood did vary significantly by race/ethnicity, age group, and income, when controlling for all three variables. However, the magnitude of the likelihood of being a current smoker by age group and income varied by the revised race/ethnic categories.

Overall, controlling for race/ethnicity, age group, and income, NH black/Hispanic adults with diabetes were 40% less likely to be current smokers compared to non-Hispanic whites. Adults with diabetes in the 18-44 years age group were 4.5 times and those in the 45-64 years age group were four times more likely than their counterparts aged 65 years and older to be current smokers. Those earning less than \$25,000 and those earning \$25,000 to less than \$50,000 per year were 2.9 and 1.9 times, respectively, more likely than those earning \$50,000 or more per year to be current smokers.

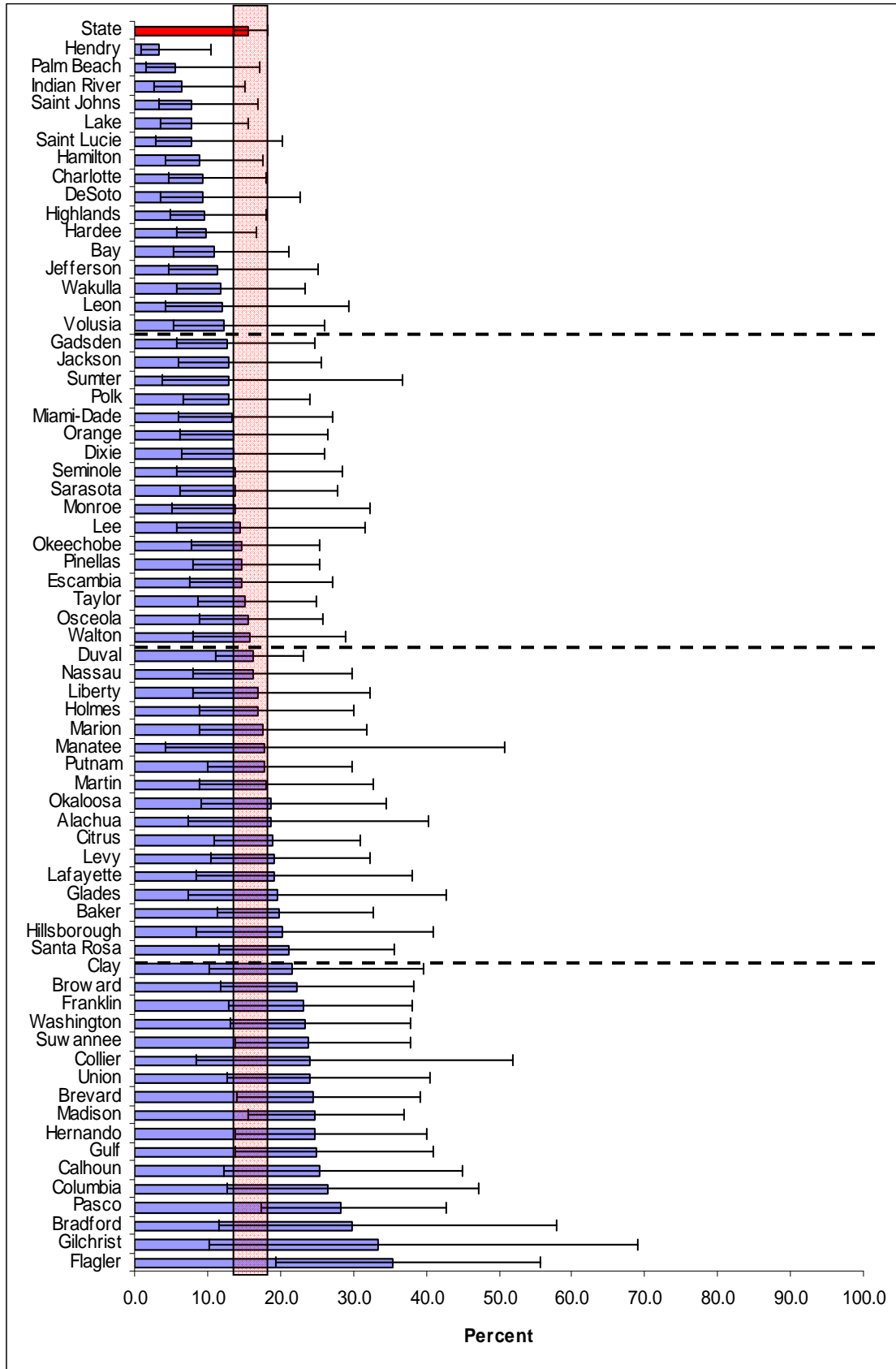
Among non-Hispanic white adults with diabetes, those aged 18-44 and the 45-64 years age groups were nearly six times more likely than those aged 65 years and older to be a current

smoker. In addition, those earning less than \$25,000 per year were 2.3 times and those earning \$25,000 to less than \$50,000 per year were 1.8 times more likely than their counterparts earning \$50,000 per year to be a current smoker.

Among black/Hispanic adults with diabetes, the strength of the association between income and current smoking was much more pronounced than that observed among non-Hispanic whites and the association between age group and current smoking observed among non-Hispanic whites was not observed among black/Hispanic adults. Among black/Hispanic adults with diabetes, those earning less than \$25,000 per year were 14.7 times more likely and those earning \$25,000 to less than \$50,000 per year were 6.8 times more likely to be current smokers compared to their counterparts earning \$50,000 or more per year.

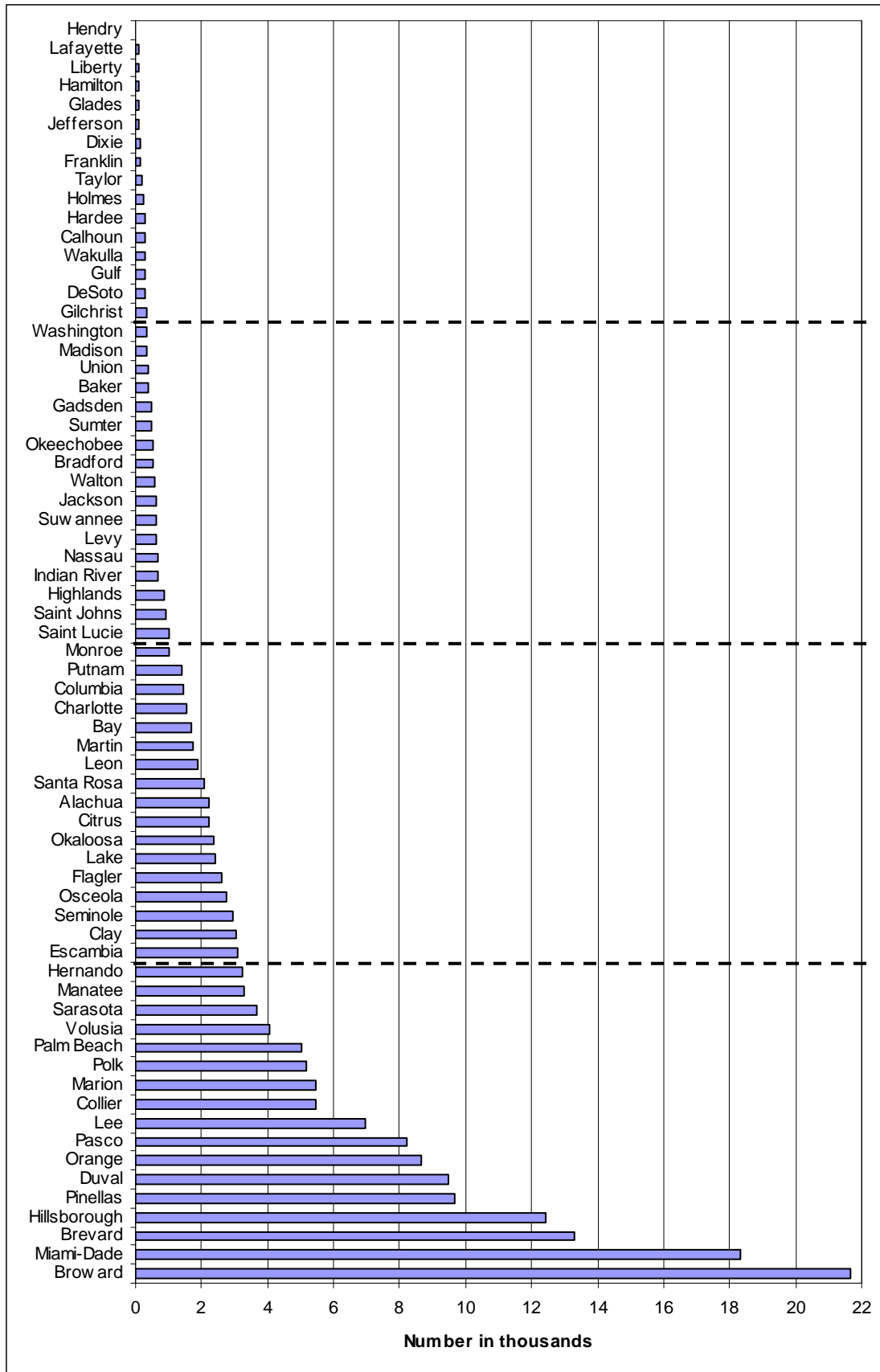
Figures 2a and 2b show current smoking among adults with diabetes in two ways: point estimates and estimated number of adults, respectively. The prevalence rates of current smoking among adults with diabetes for all but two counties are not statistically significantly different from the overall state prevalence. Hendry County has the lowest prevalence rate (3.3%) and Flagler County has the highest current smoking prevalence among adults with diabetes (35.5%). When identifying key areas of concern, it is useful to know the estimated population at risk in addition to the prevalence. For example, from Figure 2a, Flagler County's current smoking rate among adults with diabetes is statistically higher than the state overall; however, Flagler County is not in the top quartile by estimated number of smokers. Broward County has the highest estimated number of adult current smokers with diabetes and is in the highest quartile for prevalence.

**Figure 2a. Percentage of adult current smokers with diabetes, by county, ranked by point estimate, with state prevalence confidence interval shaded in light red and divided by quartiles, Florida, 2007**



Source: 2007 Florida BRFSS

**Figure 2b. Estimated number (in thousands) of adult current smokers with diabetes, by county, ranked by number and divided by quartiles, Florida, 2007**



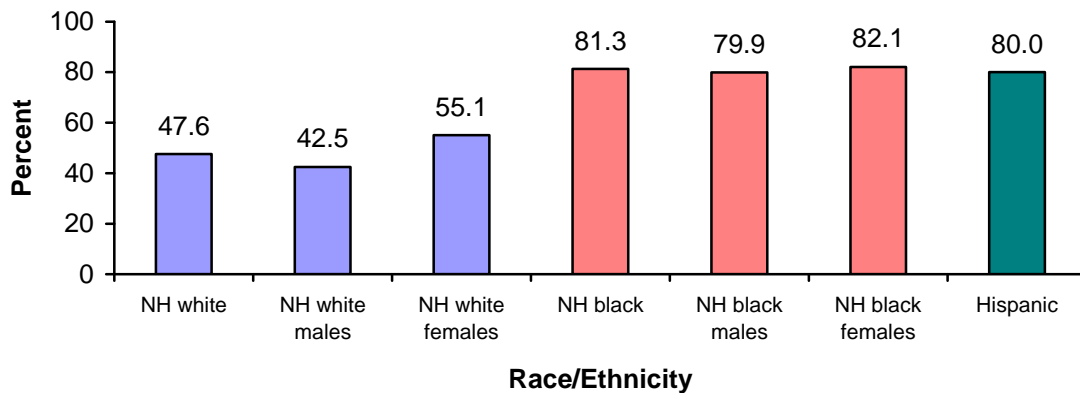
Source: 2007 Florida BRFSS

## Cessation Questions

In 2007 BRFSS respondents were asked, “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?” This question was used to examine the proportion of those with diabetes who were current smokers and who tried to quit in the past. Overall, 56.5% of adults with diabetes tried to quit smoking in the past year. This is not different from the rate observed among those who did not have diabetes (52.9%).

The proportion of adults with diabetes who were current smokers and who tried to quit in the past year varied by race/ethnicity and race/ethnicity by sex (see Table 3 and Figure 3 for details). Among non-Hispanic whites with diabetes, 47.6% tried to quit in the past year. This rate is statistically significantly lower than the rates observed among non-Hispanic blacks (81.3%) and Hispanics (80.0%). Non-Hispanic white males with diabetes had a statistically significantly lower attempted quit rate (42.5%) compared to non-Hispanic black males (79.9%) and non-Hispanic black females (82.1%) with diabetes. Non-Hispanic white females with diabetes had a statistically significantly lower attempted quit rate (55.1%) compared to non-Hispanic black females (82.1%) with diabetes.

**Figure 3. Percentage of adult current smokers with diabetes who stopped smoking for at least one day in the past 12 months, race/ethnicity and sex, Florida, 2007**



NH = Non-Hispanic

Hispanic male and female rates are not shown due to small sample sizes

Source: 2007 Florida BRFSS

**Table 3. Percentage of adult current smokers with diabetes who stopped smoking for at least one day in the past 12 months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		56.5	48.3-64.4
Sex	Male	51.6	39.8-63.2
	Female	62.9	52.8-72.0
Race/Ethnicity	Non-Hispanic White	47.6	38.4-56.9
	Male	42.5	29.9-56.2
	Female	55.1	44.5-65.2
	Non-Hispanic Black	81.3	60.0-92.6
	Male	79.9	46.4-94.8
	Female	82.1	51.7-95.1
Hispanic		80.0	59.2-91.7
	Male	^	^
	Female	^	^
Age Group (Yrs.)	18-44	47.8	29.3-66.9
	45-64	55.0	44.3-65.3
	65+	66.0	51.9-77.8
Education	<High School (HS)	62.2	40.5-79.9
	HS / < 4 Yrs. College	64.0	51.9-74.5
	4+ Years College	49.8	39.0-60.7
Annual Income	< \$25,000	62.4	49.8-73.5
	\$25,000 - <\$50,000	50.1	35.8-64.4
	\$50,000+	60.9	43.4-76.0
Married or Unmarried Couple	Yes	57.4	46.3-67.8
	No	55.5	43.2-67.0

^ Data not included due to small sample size

Source: 2007 Florida BRFSS

## 2007 Callback Survey Results

### Quit Attempt History

The 2007 Florida Callback Survey posed a number of questions to participants concerning their history of smoking cessation. The responses to the questions below were analyzed and a description of the results is provided.

#### Question: During the past 12 months, have you tried to quit smoking completely?

Table 4 shows the percentage of adult current smokers with diabetes who tried to quit smoking completely in the past 12 months. Overall, 50.8% of participants with diabetes who were current smokers had tried to quit smoking completely in the past 12 months. Among their counterparts who did not have diabetes, statistically significantly fewer (43.4%) tried to quit. Among current smokers with diabetes, the proportion who tried to quit smoking in the past 12 months was statistically significantly higher among females (56.2%) compared to males (42.8%). The proportion who tried to quit smoking in the past year was statistically significantly higher among those earning less than \$25,000 per year (58.7%) compared to those earning \$25,000 to less than \$50,000 (43.3%) and those earning \$50,000 or more (37.8%). The proportion who tried to quit smoking in the past 12 months did not vary significantly by race/ethnicity, age group, education, or marital status.

**Table 4. Percentage of adult current smokers with diabetes who tried to quit smoking completely in the past 12 months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		50.8	45.6 – 56.0
Sex	Male	42.8	34.8 – 51.2
	Female	56.2	49.5 – 62.6
Race/Ethnicity	Non-Hispanic White	49.8	44.2 – 55.5
	Male	43.1	34.1 – 52.6
	Female	53.7	46.6 – 60.7
	Non-Hispanic Black	65.0	47.5 – 79.2
	Hispanic	^	^
Age Group (Yrs.)	18-44	40.3	26.5 – 55.7
	45-64	54.0	47.5 – 60.4
	65+	47.8	37.8 – 58.1
Education	<High School (HS)	57.4	45.4 – 68.7
	HS / < 4 Yrs. College	45.4	37.0 – 54.1
	4+ Years College	52.1	44.3 – 59.7
Annual Income	< \$25,000	58.7	51.3 – 65.8
	\$25,000 - <\$50,000	43.3	33.3 – 54.0
	\$50,000+	37.8	26.2 – 51.0
Married or Unmarried Couple	Yes	49.7	42.0 – 57.3
	No	51.8	44.7 – 58.8

^ Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

**Table 5. Percentage of adult current smokers with diabetes who EVER tried to quit smoking completely, among those who did not try to quit in the past 12 months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		70.2	62.7 – 76.7
Sex	Male	72.3	60.6 – 81.5
	Female	68.3	58.3 – 76.9
Race/Ethnicity	Non-Hispanic White	73.9	66.1 – 80.4
	Male	76.4	64.0 – 85.5
	Female	72.0	61.7 – 80.5
	Non-Hispanic Black	^	^
	Hispanic	^	^
Age Group (Yrs.)	18-44	^	^
	45-64	73.0	63.5 – 80.7
	65+	76.0	61.3 – 86.4
Education	<High School (HS)	57.8	38.5 – 74.9
	HS / < 4 Yrs. College	65.8	53.8 – 76.1
	4+ Years College	79.9	69.6 – 87.4
Annual Income	< \$25,000	64.8	52.7 – 75.3
	\$25,000 - <\$50,000	70.3	56.0 – 81.4
	\$50,000+	81.3	65.2 – 91.0
Married or Unmarried Couple	Yes	73.4	62.9 – 81.9
	No	67.2	56.4 – 76.5

^ Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

**Question: Have you ever tried to quit smoking completely?**

Among participating current smokers who had not tried to quit smoking in the past 12 months, 70.2% of those with diabetes had ever tried to quit smoking completely (see Table 5 for details). This rate is not significantly different from the rate observed among their counterparts who do not have diabetes (67.7%) and did not vary significantly by sex, race/ethnicity, age group, education, income, or marital status.

**Question: During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?**

Table 6 shows the percentage of adult current smokers with diabetes that quit smoking for at least one day, among those who tried to quit in the past 12 months. Among participating current smokers who attempted to quit in the past 12 months, 60.1% of those with diabetes stopped smoking for at least one day in the past 12 months because they were trying to quit. This rate was statistically significantly higher than the rate observed among their counterparts who did not have diabetes, where 52.4% quit smoking at least one day in the past 12 months. The proportion of current smokers with diabetes who attempted to quit and stopped smoking for at least one day in the past 12 months was statistically significantly higher among non-Hispanic blacks (72.6%) compared to non-Hispanic whites (55.5%), but did not vary significantly by sex, age group, education, income, or marital status.

**Table 6. Percentage of adult current smokers with diabetes who quit smoking for at least one day, among those who tried to quit smoking in the past 12 months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		60.1	54.4 – 65.5
Sex	Male	58.7	49.4 – 67.5
	Female	60.9	53.7 – 67.6
Race/Ethnicity	Non-Hispanic White	55.5	49.3 – 61.6
	Male	56.5	46.0 – 66.4
	Female	55.0	47.2 – 62.5
	Non-Hispanic Black	72.6	53.5 – 85.9
	Hispanic	^	^
Age Group (Yrs.)	18-44	^	^
	45-64	60.5	53.5 – 67.2
	65+	55.8	44.6 – 66.4
Education	<High School (HS)	64.0	50.6 – 75.6
	HS / < 4 Yrs. College	58.0	48.4 – 67.1
	4+ Years College	59.8	51.5 – 67.5
Annual Income	< \$25,000	65.3	57.5 – 72.4
	\$25,000 - <\$50,000	55.7	44.1 – 66.8
	\$50,000+	53.7	39.5 – 67.4
Married or Unmarried Couple	Yes	57.6	49.1 – 65.6
	No	62.2	54.5 – 69.2

^ Data not included due to small sample size

Male/Female rates for non-Hispanic black and Hispanic not included due to small sample sizes

Source: 2007 Florida Tobacco Callback Survey

**Question: Have you ever stopped smoking for one day or longer because you were trying to quit smoking?**

Among participating current smokers who had ever tried to quit, about 90% had ever stopped smoking for at least one day because they were trying to quit. This rate did not vary significantly by diabetes status and did not vary significantly by sex, race/ethnicity, age group, education, income, or marital status (see Table 7 for details).

**Table 7. Percentage of adult current smokers with diabetes who ever quit smoking for at least one day, among those who EVER tried to quit smoking, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		90.2	81.6 – 95.0
Sex	Male	85.4	69.4 – 93.8
	Female	94.6	86.5 – 98.0
Race/Ethnicity	Non-Hispanic White	92.6	85.9 – 96.3
	Male	91.3	79.0 – 96.7
	Female	93.6	84.1 – 97.6
	Non-Hispanic Black	^	^
	Hispanic	^	^
Age Group (Yrs.)	18-44	^	^
	45-64	91.9	83.8 – 96.1
	65+	97.5	84.4 – 99.7
Education	<High School (HS)	^	^
	HS / < 4 Yrs. College	88.9	71.5 – 96.3
	4+ Years College	91.1	76.6 – 97.0
Annual Income	< \$25,000	91.4	73.9 – 97.6
	\$25,000 - <\$50,000	94.9	81.7 – 98.7
	\$50,000+	^	^
Married or Unmarried Couple	Yes	88.6	75.2 – 95.3
	No	91.8	77.9 – 97.2

^ Data not included due to small sample size

Male/Female rates for non-Hispanic black and Hispanic not included due to small sample sizes

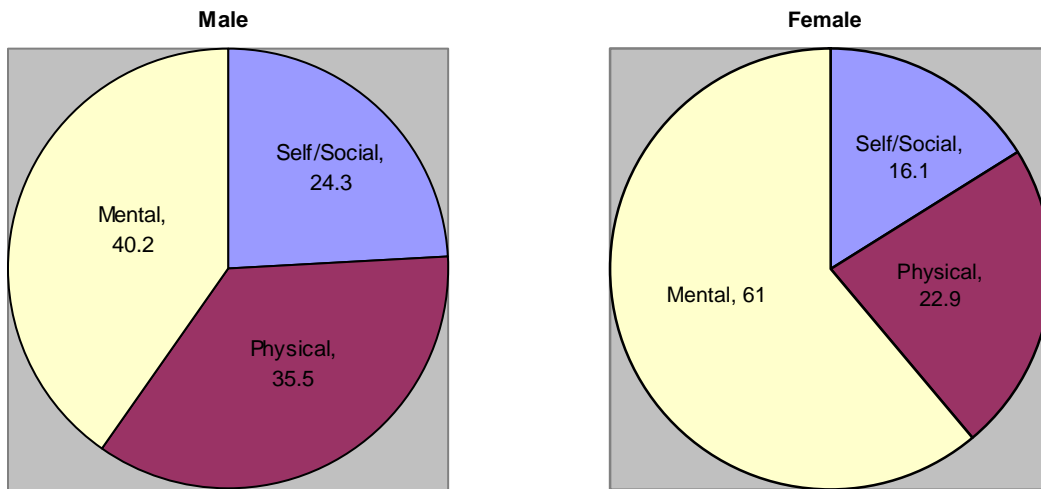
Source: 2007 Florida Tobacco Callback Survey

**Question: Thinking back to the last time you tried to quit smoking, what was the main reason you believe you started smoking again?**

The reasons for initiating smoking after quitting can be grouped into three categories: self/social reasons, physical reasons, and mental reasons. Those who responded “did not really want to quit,” “partner still smokes, too hard not to smoke,” or “friends all smoke, too hard not to smoke” were categorized as having self/social reasons. Those who responded “cravings were too strong” or “did not like the weight gain” were categorized as having physical reasons. Those who responded “stressful life event happened,” “had mood swings and felt off,” or “felt depressed” were categorized as having mental reasons. Table 8 shows the percentage of adult current smokers who cited self/social, physical, or mental reasons for starting smoking again after quitting stratified by sex, race/ethnicity, age, education, income, and marital status. Figure 4 is a graphic depiction of these data stratified by sex.

Overall, among current smokers with diabetes who ever quit smoking, 19.2% started smoking again due to self/social reasons, 27.6% started smoking again due to physical reasons, and 53.3% started smoking again due to mental reasons. The participants citing physical or mental reasons varied significantly by sex. The proportion of male current smokers with diabetes citing physical reasons for starting to smoke again was statistically significantly higher compared to their female counterparts (35.5% versus 22.9%). Likewise, the proportion of males citing mental reasons was statistically significantly lower compared to their female counterparts (40.2% versus 61.0%).

**Figure 4. Percentage of adult current smokers with diabetes who cited self/social, physical, or mental reasons for starting to smoke again after quitting, by sex, Florida, 2007**



Source: 2007 Florida Tobacco Callback Survey

**Table 8. Percentage of adult current smokers with diabetes who cited self/social, physical, or mental reasons for starting to smoke again after quitting, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida 2007**

		Self/Social		Physical		Mental	
		Percent	95% CI	Percent	95% CI	Percent	95% CI
All		19.2	14.5 – 25.0	27.6	22.2 – 33.7	53.3	46.8 – 59.6
Sex	Male	24.3	16.1 – 35.1	35.5	25.9 – 46.4	40.2	30.0 – 51.3
	Female	16.1	10.9 – 23.2	22.9	16.9 – 30.2	61.0	53.0 – 68.5
Race/Ethnicity	Non-Hispanic White	18.5	13.6 – 24.5	26.1	20.5 – 32.6	55.5	48.5 – 62.3
	Non-Hispanic Black	^	^	^	^	^	^
	Hispanic	^	^	^	^	^	^
Age Group (Yrs.)	18-44	^	^	^	^	^	^
	45-64	20.3	14.5 – 27.6	27.1	20.6 – 34.8	52.7	44.6 – 60.6
	65+	18.5	10.7 – 30.0	34.6	23.9 – 47.3	46.9	34.9 – 59.2
Education	<High School (HS)	16.3	7.8 – 31.2	37.9	25.0 – 52.7	45.8	31.9 – 60.4
	HS / < 4 Yrs. College	23.6	15.2 – 34.6	26.0	17.6 – 36.7	50.4	39.5 – 61.3
	4+ Years College	17.1	11.1 – 25.6	24.1	17.0 – 32.8	58.8	49.3 – 67.7
Annual Income	< \$25,000	20.6	13.8 – 29.6	26.1	18.9 – 34.9	53.3	44.2 – 62.3
	\$25,000 - <\$50,000	22.9	13.6 – 35.8	31.1	20.1 – 44.6	46.1	33.1 – 59.6
	\$50,000+	15.6	7.6 – 29.5	24.5	14.0 – 39.4	59.9	44.5 – 73.5
Married or Unmarried Couple	Yes	21.5	14.8 – 30.2	26.5	19.1 – 35.4	52.0	42.6 – 61.3
	No	16.9	10.9 – 25.4	28.6	21.3 – 37.2	54.5	45.5 – 63.1

^ Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

## Readiness to Quit

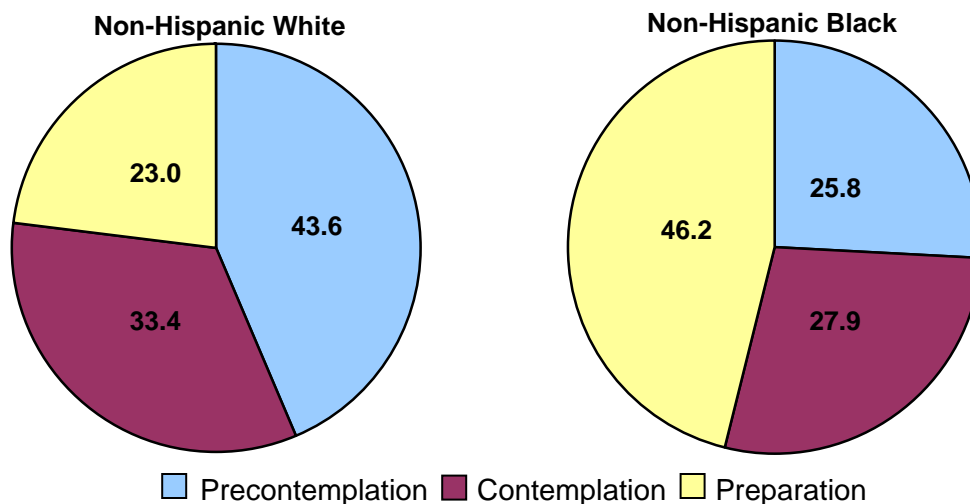
Participants were asked a series of questions based on one of the core constructs of the Transtheoretical Model of behavior change: stages of change (Prochaska, Redding, & Evers, 1997). Three of the five stages of change were the focus of the questions posed: precontemplation, contemplation, and preparation. Precontemplation means the respondent is not considering quitting smoking in the next six months. Contemplation indicates that the respondent is considering stopping smoking in the next six months. Preparation indicates that the respondent is considering stopping smoking in the next 30 days. The questions asked and descriptions of the analyses follow.

**Question 1: Are you considering stopping smoking within the next six months?**

**Question 2: Are you planning to stop smoking within the next 30 days?**

The two questions above were asked to ascertain whether the respondents were in the precontemplation, contemplation, or preparation stage. Table 9 summarizes the findings. Among current smokers with diabetes, 39.8% were in the precontemplation stage, 32.5% were in the contemplation stage, and 27.7% were in the preparation stage. The proportion of current smokers with diabetes at each stage was not statistically significantly different from their counterparts without diabetes. The proportion in the precontemplation stage varied statistically significantly by race/ethnicity with 43.6% of non-Hispanic whites and 25.8% of non-Hispanic blacks categorized as precontemplation. Conversely, the proportion of non-Hispanic whites in the preparation stage (23.0%) was statistically significantly lower compared to their non-Hispanic black counterparts (46.2%). Figure 5 graphically depicts these findings.

**Figure 5. Percentage of non-Hispanic adult current smokers with diabetes who were in each of the three stages of change depicted, Florida 2007**



Source: 2007 Florida Tobacco Callback Survey

**Table 9. Percentage of adult current smokers with diabetes in each stage of change listed, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Precontemplation		Contemplation		Preparation	
		Percent	95% CI	Percent	95% CI	Percent	95% CI
All		39.8	34.7 – 45.1	32.5	27.7 – 37.8	27.7	23.1 – 32.8
Sex	Male	41.5	33.3 – 50.2	27.6	20.4 – 36.2	30.9	23.3 – 39.8
	Female	38.7	32.4 – 45.4	35.6	29.4 – 42.5	25.6	20.2 – 32.0
Race/Ethnicity	Non-Hispanic White	43.6	37.9 – 49.5	33.4	28.2 – 39.1	23.0	18.4 – 28.2
	Non-Hispanic Black	25.8	14.0 – 42.8	27.9	14.1 – 47.8	46.2	29.8 – 63.6
	Hispanic	^	^	^	^	^	^
Age Group (Yrs.)	18-44	30.6	18.5 – 46.1	38.1	24.0 – 54.5	31.3	18.2 – 48.4
	45-64	38.7	32.5 – 45.3	35.1	29.0 – 41.8	26.2	20.7 – 32.5
	65+	48.0	37.5 – 58.8	22.1	14.4 – 32.3	29.9	20.8 – 40.9
Education	<High School (HS)	26.1	17.2 – 37.6	35.8	24.7 – 48.7	38.1	27.1 – 50.6
	HS / < 4 Yrs. College	47.9	39.2 – 56.8	25.5	18.6 – 34.0	26.6	19.3 – 35.3
	4+ Years College	39.7	32.3 – 47.7	36.7	29.4 – 44.8	36.7	29.4 – 44.8
Annual Income	< \$25,000	33.9	27.3 – 41.2	31.1	24.6 – 38.6	34.9	28.2 – 42.4
	\$25,000 - <\$50,000	50.6	39.8 – 61.2	33.6	24.2 – 44.5	15.9	9.1 – 26.4
	\$50,000+	40.0	27.6 – 53.8	30.5	19.6 – 44.1	29.6	17.9 – 44.6
Married or Unmarried Couple	Yes	42.1	34.6 – 50.0	34.0	26.8 – 42.0	23.9	17.6 – 31.6
	No	37.8	31.1 – 45.0	31.3	24.9 – 38.5	30.9	24.6 – 38.0

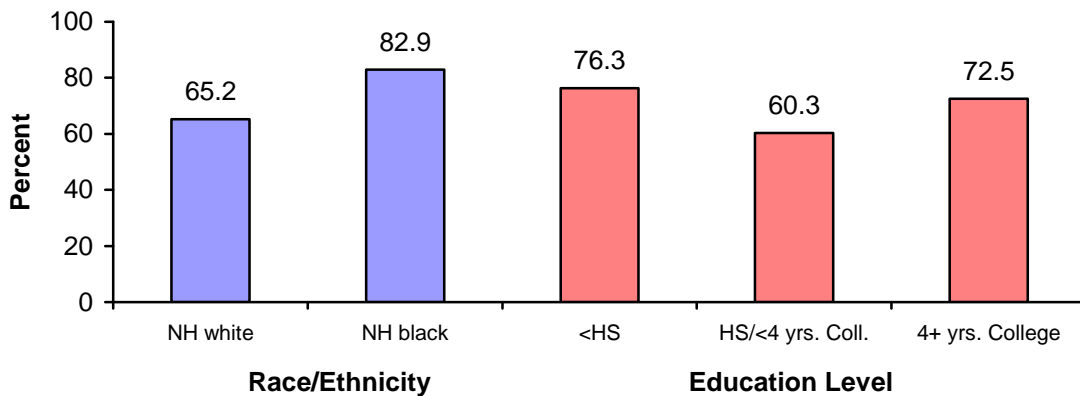
^ Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

**Question: How interested are you in quitting smoking – not at all, a little, somewhat, or very interested?**

This question directly examined the respondents' level of readiness to change and was asked of respondents who did not indicate they were seriously considering stopping smoking in the next six months. Those responding "somewhat" or "very interested" were categorized as *ready for change*. Among current smokers with diabetes who did not indicate they were considering quitting smoking in the next six months, 68.9% indicated they were ready for change (see Table 10). The proportion ready for change did not vary statistically significantly by diabetes status, but did vary significantly by race/ethnicity and education level. Figure 6 shows the proportions that are ready to quit by race/ethnicity and education level. Among non-Hispanic white current smokers with diabetes, 65.2% indicated they were ready to quit, compared to 82.9% of their non-Hispanic black counterparts. When examining readiness to quit among this population by education level, 60.3% of those with a high school education and/or less than four years of college indicated they were ready to quit, compared to 76.3% of those with less than a high school education and 72.5% of those with four or more years of college.

**Figure 6. Percentage of adults with diabetes who were not ready to quit smoking in the next six months, but were somewhat or very interested in quitting, Florida, 2007**



NH = Non-Hispanic  
HS = High School

Source: 2007 Florida Tobacco Callback Survey

**Table 10. Percentage of adult current smokers with diabetes who indicated they were somewhat or very interested in quitting smoking, among those who were not ready to quit in the next six months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		68.9	64.0 – 73.5
Sex	Male	63.9	55.5 – 71.5
	Female	72.4	66.2 – 77.8
Race/Ethnicity	Non-Hispanic White	65.2	59.6 – 70.5
	Non-Hispanic Black	82.9	66.8 – 92.1
	Hispanic	^	^
Age Group (Yrs.)	18-44	72.3	56.0 – 84.3
	45-64	71.2	65.1 – 76.6
	65+	60.7	50.2 – 70.3
Education	<High School (HS)	76.3	65.3 – 84.6
	HS / < 4 Yrs. College	60.3	51.5 – 68.5
	4+ Years College	72.5	65.1 – 78.8
Annual Income	< \$25,000	72.5	65.5 – 78.6
	\$25,000 - <\$50,000	61.1	50.6 – 70.6
	\$50,000+	70.8	57.7 – 81.2
Married or Unmarried Couple	Yes	66.3	58.8 – 73.1
	No	71.2	64.3 – 77.1

^Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

**Question: If you did try to quit smoking altogether in the next six months, how likely do you think you would be to succeed – not at all, a little likely, somewhat likely, or very likely?**

This question directly examined the respondents' self-efficacy related to smoking cessation in the next six months and was asked to respondents who did not indicate they were seriously considering stopping smoking in the next six months. Those who responded "somewhat likely" or "very likely" were categorized as having higher self-efficacy compared to those who responded "not at all" or "a little likely." Table 11 summarizes the results from this question. Among current smokers with diabetes who were not considering quitting in the next six months, 72.0% had a high level of self-efficacy. This proportion did not vary statistically significantly by diabetes status, but did vary significantly by race/ethnicity and education (see Figure 7). Among current smokers with diabetes who did not indicate they were considering stopping smoking in the next six months, 66.9% of non-Hispanic whites had high self-efficacy related to smoking cessation compared to 90.2% of non-Hispanic blacks. Among this same population, 79.5% of those with four or more years of college had high self-efficacy, compared to 64.6% of those with a high school diploma and/or some college.

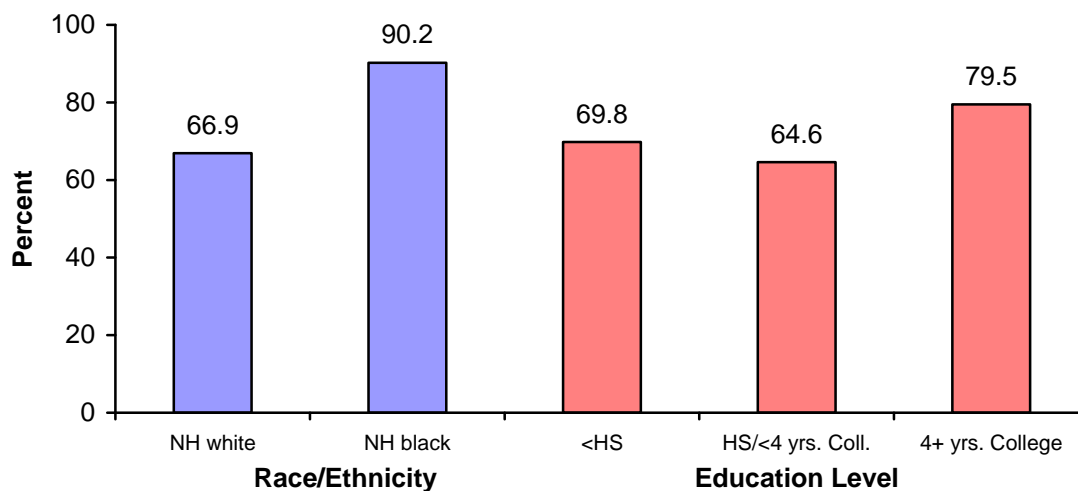
**Table 11. Percentage of adult current smokers with diabetes who indicated they were somewhat or very likely to successfully quit smoking if they tried to quit in the next six months, among those who were not ready to quit smoking in the next six months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Percent	95% CI
All		72.0	67.1 – 76.4
Sex	Male	75.3	67.4 – 81.8
	Female	69.9	63.5 – 75.6
Race/Ethnicity	Non-Hispanic White	66.9	61.2 – 72.1
	Non-Hispanic Black	90.2	75.8 – 96.5
	Hispanic	^	^
Age Group (Yrs.)	18-44	71.8	56.9 – 83.0
	45-64	73.5	67.4 – 78.8
	65+	68.0	57.5 – 77.0
Education	<High School (HS)	69.8	58.5 – 79.1
	HS / < 4 Yrs. College	64.6	55.8 – 72.4
	4+ Years College	79.5	72.6 – 85.1
Annual Income	< \$25,000	75.1	68.3 – 80.8
	\$25,000 - <\$50,000	65.6	55.2 – 74.7
	\$50,000+	77.6	64.9 – 86.6
Married or Unmarried Couple	Yes	70.3	62.9 – 76.8
	No	73.5	66.9 – 79.2

^Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

**Figure 7. Percentage of adults with diabetes who were not ready to quit smoking in the next six months, but felt they were somewhat or very likely to successfully quit smoking, by race/ethnicity and education level, Florida, 2007**



NH = Non-Hispanic

HS = High School

Source: 2007 Florida Tobacco Callback Survey

**Question: If you did try to quit smoking altogether in the next six months, which techniques would you use?**

For this question respondents were given eight options: six non-medical options, such as quit lines, counseling, support groups, and two medical options, including nicotine replacement therapy and prescription medicines. Respondents were able to choose more than one option. For this analysis the response options were grouped into medical and non-medical therapies. Since respondents were allowed to choose multiple options, the proportions for each category will not sum to 100%.

If they were to quit smoking in the next six months, among current smokers with diabetes, 49.5% would use medications and 25.6% would use non-medical options. The proportion that would use medications was statistically significantly higher among those with diabetes compared to those without diabetes (49.5% versus 42.2%). The proportion that would use non-medical options did not vary significantly by diabetes status. The percentage of current smokers with diabetes electing to use medications or non-medical options did not vary significantly by sex, race/ethnicity, age group, education, income, or marital status.

**Provider Advice**

**Table 12. Percentage of adult current smokers with diabetes who saw any health provider in the past 12 months and the percentage who were advised not to smoke by any health provider in the past 12 months, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007**

		Saw Any Health Provider		Received Advice From Any Provider	
		Percent	95% CI	Percent	95% CI
All		92.9	85.7 – 95.2	95.3	92.4 – 97.2
Sex	Male	91.6	85.7 – 95.2	97.7	93.1 – 99.3
	Female	93.7	89.2 – 96.4	93.8	89.4 – 96.5
Race/Ethnicity	Non-Hispanic White	93.9	90.5 – 96.1	94.6	91.0 – 96.9
	Non-Hispanic Black	92.8	75.6 – 98.2	^	^
	Hispanic	^	^	^	^
Age Group (Yrs.)	18-44	94.2	83.2 – 98.1	86.7	72.9 – 94.0
	45-64	92.3	87.8 – 95.3	98.5	95.3 – 99.5
	65+	93.6	85.2 – 97.4	91.6	82.6 – 96.2
Education	<High School (HS)	89.9	79.7 – 95.3	98.3	88.7 – 99.8
	HS / < 4 Yrs. College	92.0	85.3 – 95.7	96.3	90.5 – 98.6
	4+ Years College	95.1	90.4 – 97.5	93.4	88.1 – 96.4
Annual Income	< \$25,000	92.2	87.1 – 95.4	98.1	94.1 – 99.4
	\$25,000 - <\$50,000	93.7	85.2 – 97.5	94.1	86.6 – 97.6
	\$50,000+	98.3	88.8 – 99.8	90.6	79.1 – 96.1
Married or Unmarried Couple	Yes	93.8	88.5 – 96.7	94.8	89.8 – 97.4
	No	92.1	87.1 – 95.3	95.9	91.5 – 98.0

^Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

The series of questions listed next ascertains whether the respondent saw a healthcare professional in the past year and whether they received advice about quitting smoking. The analysis description below includes information about each of these questions separately and combined into composite variables. A respondent was considered to have seen any health professional if they responded “yes” to either Question 1 or Question 3. A respondent was

considered to have received advice about not smoking from a health professional if they answered “yes” to either Question 2 or Question 5.

**Question 1: In the past 12 months, have you seen a dentist?**

**Question 2: During the past 12 months, did any dentist advise you to stop smoking?**

**Question 3: In the past 12 months, have you seen a doctor, nurse, or other health professional other than a dentist to get any kind of care for yourself?**

**Question 4: In the past 12 months, did any doctor, nurse, or other health professional other than a dentist ask if you smoke?**

**Question 5: In the past 12 months, did any doctor, nurse, or other health professional other than a dentist advise you not to smoke?**

Among current smokers with diabetes, 40.7% had visited a dentist in the past 12 months. This is statistically significantly lower than the dentist visit rate observed among those without diabetes (47.8%). Conversely, the percentage of current smokers that saw a healthcare professional (other than a dentist) in the past 12 months was statistically significantly higher among those with diabetes (90.1%) compared to those without diabetes (75.5%). The percentage of current smokers with diabetes who visited a health professional (other than a dentist) in the past year and who were asked if they smoked (89.6%) was not statistically significantly different than the rate observed among those without diabetes.

Table 12 shows the percentage of adult current smokers who saw any healthcare provider in the past year and, among this group, the percentage who were advised not to smoke by sex, race/ethnicity, age, education, income, and marital status. Overall, 92.9% of current smokers with diabetes saw any health professional in the past year. This rate did not vary significantly by sex, race/ethnicity, age group, education, income, or marital status. The percentage of current smokers who saw any health professional and were advised not to smoke was not significantly higher among those with diabetes (95.3%) compared to those without diabetes (92.7%). Among those with diabetes, the percentage who received advice was statistically significantly higher among those aged 45 to 64 years (98.5%) compared to those aged 18 to 44 years (86.7%) and to those aged 65 years and older (91.6%).

### **Risk Perception**

A series of statements and questions were posed to respondents to ascertain their perception of the risks of smoking and secondhand smoke.

**Statement 1: If a person has smoked a pack of cigarettes a day for more than 20 years, there is little health benefit to quitting smoking.**

Overall, 34.4% of current smokers with diabetes either agreed or strongly agreed with this statement. The percentage in agreement did not vary significantly by diabetes status.

**Statement 2: Smoking light cigarettes is safer than smoking regular cigarettes.**

Among current smokers with diabetes, 14.2% agreed or strongly agreed with this statement. The percentage in agreement did not vary significantly by diabetes status.

**Question 1: Do you think that breathing smoke from other people's cigarettes is 1) very harmful to one's health, 2) somewhat harmful to one's health, 3) not very harmful to one's health, or 4) not harmful to one's health?**

The proportion of current smokers with diabetes who stated that secondhand smoke was somewhat or very harmful (78.6%) was statistically significantly lower than the proportion observed among their counterparts without diabetes (84.0%).

**Question 2: Would you say that breathing smoke from other people's cigarettes causes lung cancer?**

Among current smokers with diabetes, 59.3% think that secondhand smoke causes lung cancer. This is statistically significantly lower than the percentage observed among their counterparts without diabetes (66.6%).

**Question 3: Would you say that breathing smoke from other people's cigarettes causes heart disease?**

Among current smokers with diabetes, 57.4% say that secondhand smoke causes heart disease. This is not statistically different from the percentage observed among current smokers without diabetes.

**Question 4: Would you say that breathing smoke from other people's cigarettes causes colon cancer?**

Overall, 26.1% of current smokers with diabetes say that secondhand smoke causes colon cancer. This is not statistically different from their counterparts without diabetes.

**Question 5: Would you say that breathing smoke from other people's cigarettes causes respiratory problems in children?**

Among current smokers with diabetes, 88.1% think that secondhand smoke causes respiratory problems in children. This proportion is not statistically different compared to current smokers without diabetes.

**Question 6: Would you say that breathing smoke from other people's cigarettes causes sudden infant death?**

Overall, 38.0% of current smokers with diabetes say that secondhand smoke causes sudden infant death. The percentage observed among current smokers without diabetes is not statistically significantly different.

A scale of risk perception was constructed using the two statements and six questions presented above based on the participant affirming knowledge of the risk for each item, resulting in a risk perception scale ranging from low to high (zero to eight). Levels of risk perception were then categorized into three levels: low risk perception (scale score 0-3), moderate risk perception (scale score 4-5), and high risk perception (scale score 6-8).

Table 13 shows the percentage of adult current smokers at each level of risk perception stratified by sex, race/ethnicity, age, education, income, and marital status. Overall, about one-third of the respondents were in each of the risk perception levels. The distribution in each level

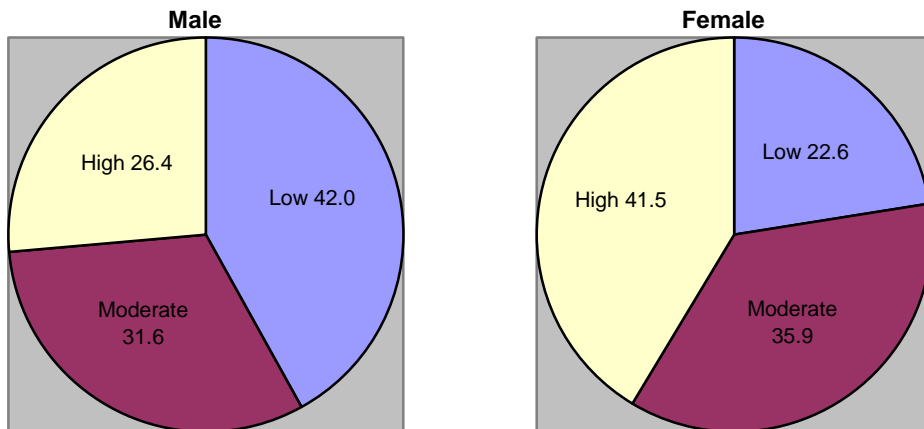
varied statistically significantly by sex and age group. Figure 8 shows the distribution of risk perception levels by sex and Figure 9 shows the distribution by age group. The proportion of respondents in the low risk perception group was statistically significantly lower among females (22.6%) compared to males (42.0%) and the proportion in the high risk perception group was statistically significantly higher among females (41.5%) compared to males (26.4%). A similar pattern was observed by age group. The proportion of respondents in the low risk perception group was statistically significantly lower among the 18 to 44 years age group (12.4%) compared to those in the 65 years and older group (36.4%). Conversely, a statistically significantly higher proportion of those aged 18 to 44 years was in the high risk perception group (61.9%) compared to the proportion of those aged 65 years and older (27.7%).

<b>Table 13. Percentage of adult current smokers with diabetes in each level of risk perception, by sex, race/ethnicity, age group, education level, annual income, and marital status, Florida, 2007</b>							
		Low Perception		Moderate Perception		High Perception	
		Percent	95% CI	Percent	95% CI	Percent	95% CI
All		30.5	25.9 – 35.4	34.1	29.3 – 39.3	35.4	30.5 – 40.7
Sex	Male	42.0	34.1 – 50.4	31.6	24.3 – 39.9	26.4	19.4 – 34.9
	Female	22.6	17.6 – 28.6	35.9	29.7 – 42.5	41.5	35.1 – 48.3
Race/Ethnicity	Non-Hispanic White	32.2	27.1 – 37.7	33.1	27.9 – 38.6	34.8	29.6 – 40.4
	Non-Hispanic Black	16.4	7.8 – 31.2	45.7	29.9 – 62.3	38.0	23.2 – 55.4
	Hispanic	^	^	^	^	^	^
Age Group (Yrs.)	18-44	12.4	5.6 – 25.4	25.7	14.1 – 42.0	61.9	45.9 – 75.7
	45-64	31.9	26.3 – 38.2	35.2	29.2 – 41.7	32.9	27.0 – 39.4
	65+	36.4	27.0 – 47.0	35.9	26.5 – 46.4	27.7	19.3 – 38.0
Education	<High School (HS)	24.5	15.7 – 36.0	36.3	25.5 – 48.8	39.2	28.3 – 51.3
	HS / < 4 Yrs. College	30.1	22.9 – 38.5	36.6	28.7 – 45.2	33.3	25.5 – 42.1
	4+ Years College	33.7	26.8 – 41.3	31.0	24.3 – 38.5	35.4	28.1 – 43.4
Annual Income	< \$25,000	28.4	22.4 – 35.3	35.9	29.1 – 43.2	35.7	29.0 – 43.1
	\$25,000 - <\$50,000	32.4	23.4 – 42.9	38.3	28.7 – 48.9	29.3	20.4 – 40.1
	\$50,000+	35.6	24.3 – 48.8	20.0	11.6 – 32.2	44.4	31.8 – 57.8
Married or Unmarried Couple	Yes	31.8	25.1 – 39.2	33.8	27.0 – 41.4	34.4	27.4 – 42.3
	No	29.3	23.4 – 36.1	34.4	27.9 – 41.5	36.3	29.7 – 43.4

^Data not included due to small sample size

Source: 2007 Florida Tobacco Callback Survey

**Figure 8. Percentage of adult current smokers with diabetes who were in each of the three levels of risk perception groups, by sex, Florida, 2007**



Source: 2007 Florida Tobacco Callback Survey

**Figure 9. Percentage of adult current smokers with diabetes who were in each of the three levels of risk perception groups, by age group, Florida, 2007**



Source: 2007 Florida Tobacco Callback Survey

## Summary

In Florida in 2007 the prevalence of current cigarette use was 25% lower among adults with diabetes compared to their counterparts who did not have diabetes. The rate of current smoking among those with diabetes varied significantly by age group, income, and marital status. Characteristics among adults with diabetes positively associated with an increased likelihood of being a current smoker were non-Hispanic white race, age less than 65 years, and income less than \$50,000 per year. The magnitude of the association between earning less than \$50,000 per year and being a current smoker was greater among non-Hispanic blacks and Hispanics combined compared to their non-Hispanic white counterparts. Among adult current smokers with diabetes, 56.5% stopped smoking for at least one day in the past 12 months. This rate was not statistically different from their counterparts without diabetes.

Data from the Tobacco Callback Survey show that the proportion of adult current smokers with diabetes who tried to quit completely in the past 12 months was significantly higher compared to their counterparts without diabetes. The proportion of current smokers with diabetes who tried to quit in the past year was significantly higher among females compared to males and among those earning less than \$25,000 compared to their counterparts in higher income groups. Among those who tried to quit in the past 12 months, the proportion that were able to quit for at least one day was significantly higher among those with diabetes compared to those without diabetes.

More than half of current smokers with diabetes who tried to quit cited mental reasons for starting to smoke again. A higher proportion of women smokers with diabetes cited mental reasons for starting to smoke again compared to men. Likewise, a higher proportion of men smokers with diabetes cited physical reasons compared to women.

About one-third of adult current smokers with diabetes were in each of the three stages of change that were the focus of the Tobacco Callback questionnaire. The distribution between these three stages varied significantly by race/ethnicity. About 44% of non-Hispanic whites were in the precontemplation stage, compared to about 26% of non-Hispanic blacks. Conversely, about 23% of non-Hispanic whites were in the preparation stage, compared to about 46% of non-Hispanic blacks. Among adult current smokers with diabetes who were not ready to quit in the next six months, nearly 70% were somewhat or very interested in quitting. Interest in quitting varied significantly by race/ethnicity and education level. Furthermore, among those indicating they were not ready to quit smoking, 72% felt they were somewhat or very likely to successfully quit smoking if they tried to quit in the next six months. Among current smokers with diabetes, if they were to quit smoking in the next six months, about half would use medical techniques, such as nicotine replacement therapy, and about one-in-four would use non-medical techniques, such as counseling.

Perceived risk from smoking or secondhand smoke varied by sex and age group. For this report, perceived risk was categorized as low (low level of risk knowledge), moderate, or high (high level of risk knowledge). Nearly 42% of female current smokers with diabetes were in the high risk perception group compared to about 26% of their male counterparts. About 62% of current smokers with diabetes in the 18-44 year age group had a high level of risk perception compared to about 30% of those in the 45-64 year and the 65 years and older age groups.

**Appendix: The estimated number and percentage of adult current smokers with diabetes (including 95% confidence intervals), by county, Florida, 2007**

COUNTY	%	95% CI		Est. No.	COUNTY	%	95% CI		Est. No.
Alachua	18.8	7.4	40.3	2,222	Osceola	15.5	8.9	25.8	2,770
Baker	19.9	11.3	32.7	405	Palm Beach	5.5	1.6	17.1	5,051
Bay	10.9	5.3	21.1	1,697	Pasco	28.3	17.3	42.7	8,220
Bradford	29.8	11.6	57.9	539	Pinellas	14.7	8.0	25.5	9,674
Brevard	24.6	14.1	39.3	13,307	Polk	13.0	6.6	24.1	5,171
Broward	22.2	11.7	38.2	21,675	Putnam	17.9	10.1	29.8	1,411
Calhoun	25.3	12.3	44.9	289	Saint Johns	7.7	3.3	17.0	935
Charlotte	9.3	4.6	18.0	1,549	Saint Lucie	7.9	2.8	20.3	1,001
Citrus	19.0	10.9	31.0	2,247	Santa Rosa	21.2	11.6	35.7	2,068
Clay	21.5	10.3	39.6	3,028	Sarasota	13.8	6.3	27.8	3,678
Collier	24.0	8.5	51.8	5,485	Seminole	13.7	5.9	28.5	2,955
Columbia	26.4	12.6	47.2	1,474	Sumter	13.0	3.7	36.7	492
DeSoto	9.4	3.5	22.8	311	Suwannee	23.8	13.9	37.8	633
Dixie	13.5	6.5	26.0	146	Taylor	15.1	8.7	25.0	215
Duval	16.2	11.1	23.1	9,474	Union	24.1	12.8	40.6	403
Escambia	14.8	7.5	27.1	3,073	Volusia	12.3	5.3	26.1	4,065
Flagler	35.5	19.4	55.6	2,591	Wakulla	11.9	5.7	23.3	297
Franklin	23.2	13.0	38.0	161	Walton	15.8	8.0	28.9	582
Gadsden	12.6	5.9	24.7	469	Washington	23.3	13.1	37.8	345
Gilchrist	33.5	10.2	69.0	321	State	15.7	13.5	18.2	194,058
Glades	19.6	7.4	42.7	105					
Gulf	25.0	13.8	41.0	302					
Hamilton	9.0	4.3	17.7	99					
Hardee	9.9	5.7	16.8	266					
Hendry	3.3	1.0	10.4	55					
Hernando	24.7	13.8	40.2	3,254					
Highlands	9.6	4.9	18.0	891					
Hillsborough	20.3	8.5	41.0	12,422					
Holmes	16.9	8.8	30.0	237					
Indian River	6.5	2.6	15.2	679					
Jackson	12.9	6.0	25.6	624					
Jefferson	11.4	4.7	25.1	117					
Lafayette	19.2	8.4	38.1	81					
Lake	7.7	3.6	15.6	2,439					
Lee	14.5	5.8	31.7	6,957					
Leon	12.0	4.3	29.5	1,905					
Levy	19.1	10.5	32.3	643					
Liberty	16.9	8.0	32.3	94					
Madison	24.7	15.5	37.0	358					
Manatee	17.8	4.3	50.7	3,285					
Marion	17.5	8.8	31.8	5,449					
Martin	18.0	9.0	32.7	1,750					
Miami-Dade	13.3	6.0	27.1	18,341					
Monroe	13.8	5.1	32.2	1,030					
Nassau	16.3	8.1	29.9	673					
Okaloosa	18.8	9.2	34.5	2,387					
Okeechobee	14.6	7.9	25.3	527					
Orange	13.5	6.3	26.4	8,659					

Source: 2007 Florida BRFSS

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