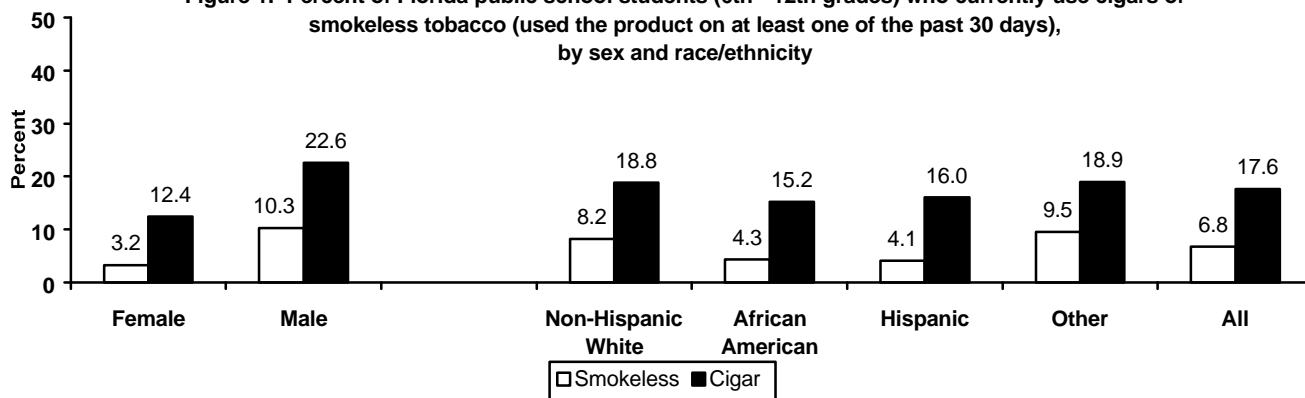


Cigar and Smokeless Tobacco Use

December 30, 1998

Report 8

Figure 1. Percent of Florida public school students (6th - 12th grades) who currently use cigars or smokeless tobacco (used the product on at least one of the past 30 days), by sex and race/ethnicity



Smokeless Tobacco

- Overall, 7% of Florida public middle and high school students currently use smokeless tobacco.
- One in ten middle and high school boys currently use smokeless tobacco, three times the rate of smokeless tobacco use among girls.
- Smokeless tobacco use among African American and Hispanic students is half that of non-Hispanic white students and students of other race/ethnicities.
- The prevalence of smokeless tobacco use remains fairly stable across grades, peaking at 7.3% in 11th grade.
- Students in the Palm Beach/Broward and Dade/Monroe regions have the lowest smokeless tobacco use rates.

Cigar

- Overall, 18% of Florida public middle and high school students currently smoke cigars.
- Twenty-three percent of boys currently smoke cigars, compared to 12% of girls.
- Cigar use is almost twice as high for students in 7th grade compared to 6th grade, increases another 32% in 8th grade, and remains fairly stable after 8th grade.
- Cigar use is lower among Hispanic and African American students compared to non-Hispanic White students and students of other race/ethnicities.
- The Dade/Monroe region has the lowest rate of current cigar use and the Tampa Bay region has the highest rate.

In This Report...

Background, Methods & Conclusions.....2

Cigar – Ever Try & Age of First Try 3

Smokeless Tobacco – Ever Try & Age of First Try 4

Smokeless Tobacco – Source & Enforcement..... 5

Smokeless Tobacco – Peer Influence & Education 6

Detailed Tables 7

Background, Methods & Conclusions

Background

Tobacco use prevention efforts have focused on cigarette smoking, the most common type of tobacco used by both adults and youth. Cigarette smoking is more prevalent than any other form of tobacco use. Nonetheless, the personal and public health impacts of cigar and smokeless tobacco use are important.

Health consequences of smokeless tobacco use are halitosis, discoloration of teeth and fillings, abrasion of teeth, cavities, gum recession, leukoplakia (pre-cancerous epithelial thickening of soft tissue of the mouth), nicotine dependence, and oral cancer. Smokeless tobacco use may also play a role in cardiovascular disease and stroke through blood pressure elevation, vasoconstriction, and irregular heartbeat.¹ Cigar smoking can cause oral, esophageal, laryngeal and lung cancers. Regular cigar smokers who inhale also have an increased risk of coronary heart disease and chronic obstructive pulmonary disease.²

Nicotine addiction can result from regular use of smokeless tobacco and cigars. For smokeless tobacco users, nicotine absorption may be as much as twice as high as the absorption from cigarette use. Among cigar users, nicotine is absorbed across the oral mucosa, where it results in a slower rise and lower peak of arterial nicotine levels delivered to the brain. For cigar users who inhale, cigar smoke is absorbed through the lungs as readily as cigarette smoke. Smokeless tobacco and cigar use cessation both produce withdrawal symptoms similar to those observed with cigarette cessation.

As reported in "FYTS Report 6,"³ those who use one form of tobacco tend to use other forms as well. Two-thirds of smokeless tobacco users also smoke cigarettes and nearly three-quarters of cigar users also smoke cigarettes. Ten percent of adolescent tobacco users use cigarettes, cigars, and smokeless tobacco.

Methods

Descriptive data presented in this report are from the 1998 Florida Youth Tobacco Survey, an anonymous school-based survey of 23,000 public middle and high school students. Current smokeless tobacco or cigar use is defined as use of the product on at least one of the past 30 days.

Conclusions

Middle and high school students are experimenting with and using smokeless tobacco and cigars despite the risks of addiction and adverse health effects. Enforcement of current Florida tobacco laws is inadequate, allowing many students under 18 years of age to purchase and possess these products. Education concerning the adverse effects of smokeless tobacco is not reaching many students, especially toward the end of their high school years.

Cigar use among Florida public middle and high school students is high. Nearly half (48.6%) of Florida public high school and nearly 30% of middle school students have tried cigar smoking. Of those who have tried, 43% of high school and 51% of middle school students currently smoke cigars. Overall, 21% of high school and 14% of middle school students smoke cigars. Cigar use is nearly twice as high for boys as girls.

Anti-tobacco campaigns and programs intended to prevent and/or reduce tobacco use must target all types of tobacco use.

¹ Preventing Tobacco Use Among Young People: A Report of the Surgeon General. US Dept. of Health and Human Services. Centers for Disease Control and Prevention. NCCDPHP. OSH. 1994.

² Cigars: Health Effects and Trends. National Institutes of Health, National Cancer Institute. NIH Publication No. 98-4302. 1998.

³ FYTS Report 6 is available at WWW.STATE.FL.US/TOBACCO under "Research" or by calling 850-488-2905.

Cigar – Ever Tried & Age of First Try

Figure 2. Percent of Florida public middle and high school students who reported ever trying cigars, by sex and race/ethnicity

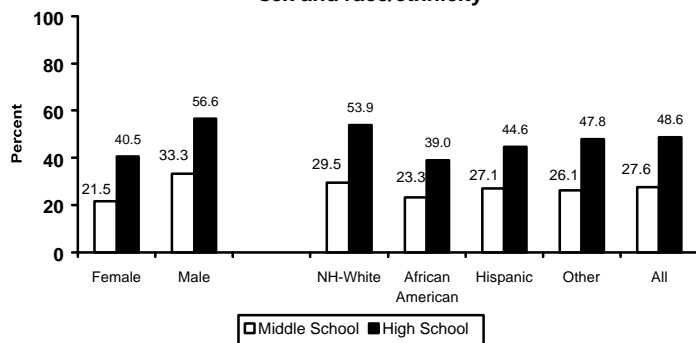
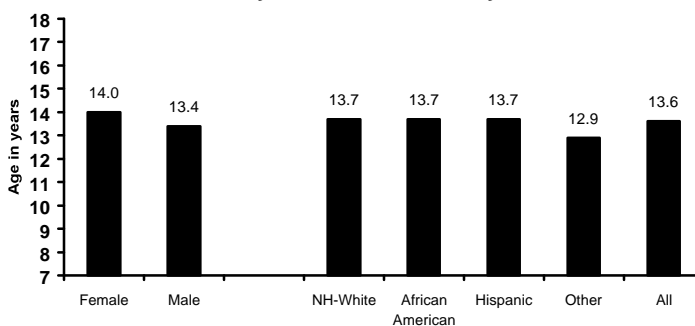


Figure 3. Average age of first cigar use, by sex and race/ethnicity



Definitions

Middle and high school students were asked:

1. *Have you ever tried to smoke a cigar, cigarillo or little cigar, even one or two puffs?*
 - a. Yes
 - b. No

High school students were asked:

2. *How old were you when you smoked a whole cigar, cigarillo or little cigar for the first time?*
 - a. *I have never smoked a whole cigar, cigarillo, or little cigar*
 - b. *7 years old or younger*
 - c. *8 or 9 years old*
 - d. *10 or 11 years old*
 - e. *12 or 13 years old*
 - f. *14 or 15 years old*
 - g. *16 or 17 years old*
 - h. *18 years old or older*

Results

Overall, 28% of middle school and 49% of high school students have tried cigar smoking. Middle and high school boys are more likely to report trying a cigar than middle and high school girls. The proportion of students who have tried cigars is fairly consistent across race/ethnic groups for middle school students. Among high school students, African American students are less likely to have tried cigars and to currently use cigars than non-Hispanic white students. However, the difference is quite small, compared to that observed for cigarette use. Non-Hispanic white students are three-and-a-half times more likely than African American students to currently smoke cigarettes, but only 25% more likely than African American high school students to currently smoke cigars. African American high school students are 75% more likely to use cigars than to use cigarettes (see FYTS Report 1 at www.state.fl.us/tobacco).

For those who have tried a cigar, the average age of first use is 13.6 years of age. However, among those who currently use cigars, the average age at first use is considerably younger at 12.5 years. The age of first use is higher for girls than boys.

Program Implications

Programs designed to prevent and/or reduce tobacco use must begin prior to middle school. Students trying cigars generally do so between the ages of 13 and 14 years or younger. Nearly half of high school students reported trying a cigar compared to just over half of middle school students. Prevention activities need to be reinforced throughout middle and high school.

Smokeless Tobacco – Ever Try & Age of First Try

Definitions

Middle and high school students were asked:

Have you ever used chewing tobacco or snuff, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?

- a. Yes
- b. No

High school students were asked:

How old were you when you used chewing tobacco or snuff for the first time?

- a. I have never used chewing tobacco or snuff
- b. 7 years old or younger
- c. 8 or 9 years old
- d. 10 or 11 years old
- e. 12 or 13 years old
- f. 14 or 15 years old
- g. 16 or 17 years old
- h. 18 years old or older

For calculating the average age of first use, high school students were assigned values equal to the midpoint of the age intervals for responses c-g, 7 for response b, and 18 for response h. Average age of first use was calculated for high school students who indicated that they had tried smokeless tobacco.

Results

Overall, 12% of middle school and 20% of high school students reported trying smokeless tobacco. Middle and high school boys are more likely than girls to have tried smokeless tobacco. Non-Hispanic white students and students of other race/ethnicities are more likely than African American or Hispanic students to have tried smokeless tobacco.

Of those who have tried smokeless tobacco, the average age of first-time use was 12 years. The average age at first use among those who currently use smokeless tobacco products is considerably younger at 10.8 years (data not shown). On average, African American students tried smokeless tobacco at a younger age than non-Hispanic white and Hispanic students.

On average, students try smokeless tobacco at the youngest age, about 12 years, compared to 12.6 years for first trying cigarettes, and 13.6 years for first trying cigars.

Program Implications

Programs designed to prevent or reduce smokeless tobacco use should be implemented prior to the middle school grades and be aware of the large gender difference for smokeless tobacco use. Current smokeless tobacco users generally tried tobacco at younger ages than those who have tried smokeless tobacco products but do not currently use those products. Preventing use of tobacco may require interventions at particularly young ages.

Figure 4. Percent of Florida public middle and high school students who reported ever trying smokeless tobacco, by sex and race/ethnicity

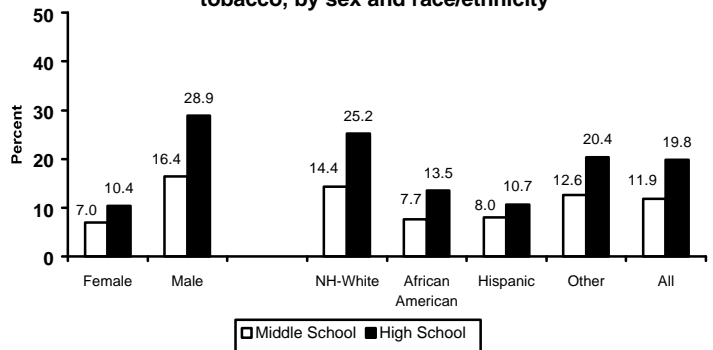
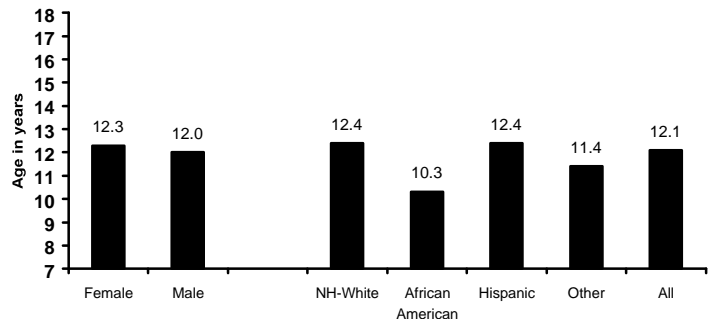
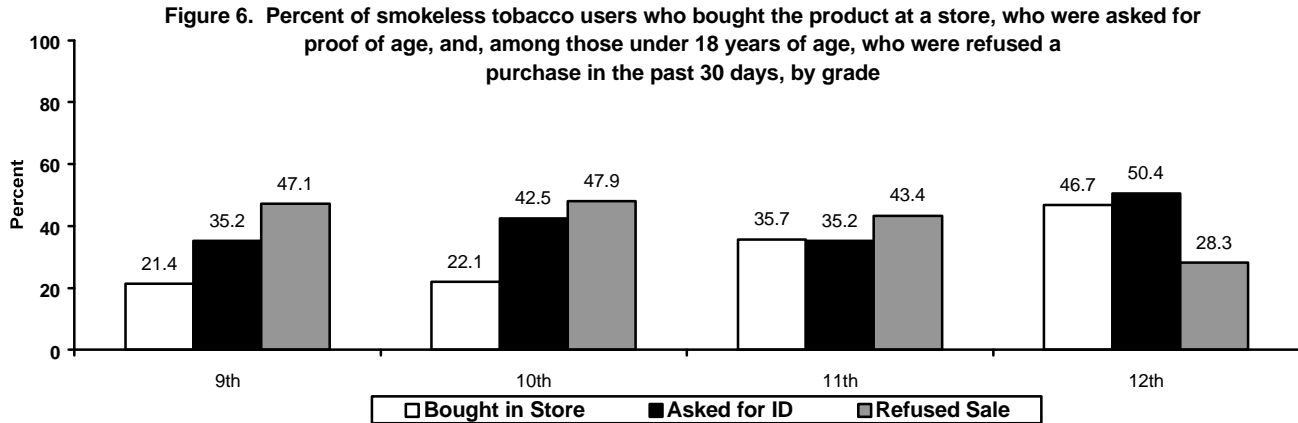


Figure 5. Average age of first smokeless tobacco use, by sex and race/ethnicity



Smokeless Tobacco – Source & Enforcement



Definitions

High school students were asked:

1. *During the past 30 days, how did you usually get your own chewing tobacco or snuff?*
 - a. *I did not use chewing tobacco or snuff during the past 30 days*
 - b. *I bought it in a store such as a convenience store, supermarket, or gas station*
 - c. *I gave someone else money to buy it for me*
 - d. *I borrowed it from someone else*
 - e. *I stole it*
 - f. *An older person gave it to me*
 - g. *I got it some other way*
2. *When you bought or tried to buy chewing tobacco or snuff in a store during the past 30 days, were you ever asked to show proof of age?*
 - a. *I did not buy chewing tobacco or snuff in a store during the past 30 days*
 - b. *Yes, I was asked to show proof of age.*
 - c. *No, I was not asked to show proof of age*
3. *During the past 30 days, did anyone ever refuse to sell you chewing tobacco or snuff because of your age?*
 - a. *I did not try to buy chewing tobacco or snuff in a store during the past 30 days*
 - b. *Yes, someone refused to sell me chewing tobacco or snuff because of my age*
 - c. *No, my age did not keep me from buying chewing tobacco or snuff*

Results

One of five smokeless tobacco users in ninth and tenth grades purchase their tobacco at a store, one-third of users in eleventh grade and nearly half of users in twelfth grade purchase their tobacco in a store. Across the four grade levels, between 35% and 50% of smokeless tobacco users who try to buy tobacco are asked to show proof of age. Among those users under age 18, more than one-third of those who try to buy smokeless tobacco are refused a sale. Of course, that suggests that nearly two-thirds of underage smokeless tobacco users who try to purchase their tobacco in a store are successful.

Program Implications

Programs designed to increase the awareness of and adherence to tobacco purchase and possession laws need to improve vendor compliance with current laws requiring proof of age for purchasers under the age of 27 for smokeless tobacco as well as cigarettes.

Smokeless Tobacco – Peer Influence and Education

Figure 7. Percent of Florida public school students (6th - 12th grades) who currently use smokeless tobacco, by number of four best friends who use smokeless tobacco.

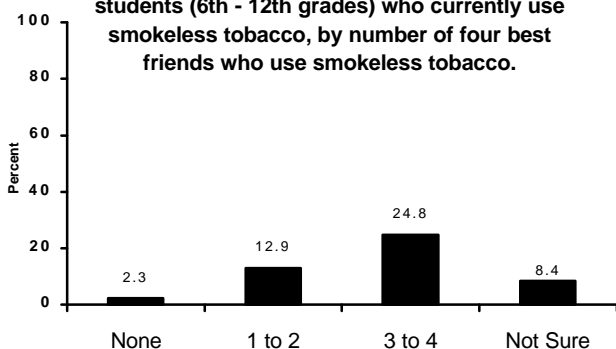
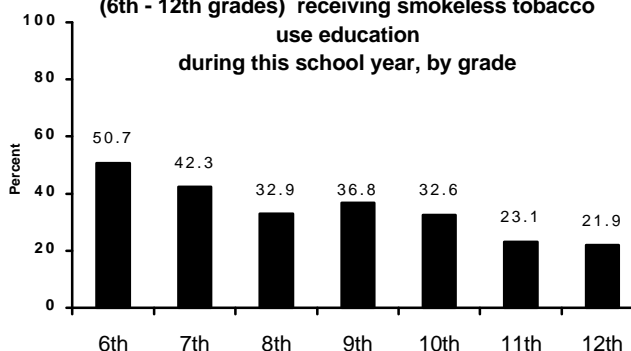


Figure 8. Percent of Florida public school students (6th - 12th grades) receiving smokeless tobacco use education during this school year, by grade



Definitions

Middle and high school students were asked:

1. How many of your four best friends use chewing tobacco or snuff?
 - a. None
 - b. One
 - c. Two
 - d. Three
 - e. Four
 - f. Not sure
2. During this school year, were you taught in any of your classes about the effects of using chewing tobacco or snuff like it makes your teeth brown or damages your gums?
 - a. Yes
 - b. No
 - c. Not sure

Results

Students with a greater proportion of their four best friends using smokeless tobacco are more likely to currently use this product themselves. One-quarter of middle and high school students who have three or four best friends who use smokeless tobacco are currently using this product. The prevalence of smokeless tobacco use for students with one or two of their four best friends who use smokeless tobacco is 13%. Only 2% of those who do not have any best friends that use smokeless tobacco use these products.

Overall, the prevalence of students receiving smokeless tobacco use education (6th – 12th grades) is relatively low. Twice as many 6th grade students (50.7%) reported receiving this type of education compared to 12th grade students (21.9%).

Program Implications

Tobacco use prevention education should include information on all forms of tobacco and should be integrated into the school curriculum across all grade levels. Given that smokeless tobacco use appears to begin prior to or during the middle school years, education regarding prevention of smokeless tobacco use should be particularly intensive in the middle school years and earlier. Older adolescents who currently use smokeless tobacco products may benefit from cessation programs. See FYTS Report 5 (at www.state.fl.us/tobacco) for a full discussion of tobacco use prevention education.

Detailed Tables

		Middle School								High School							
		Smokeless Tobacco				Cigar				Smokeless Tobacco				Cigar			
		Current Use N=11,633		Ever Try N=11,570		Current Use N=11,535		Ever Try N=11,653		Current Use N=10,202		Ever Try N=10,397		Current Use N=10,473		Ever Try N=10,382	
		%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Sex																	
	Female	4.4	±0.6	7.0	±0.7	10.3	±1.0	21.5	±1.4	2.1	±0.5	10.4	±1.2	14.1	±1.2	40.5	±1.8
	Male	9.3	±1.1	16.4	±1.5	17.6	±1.3	33.3	±1.8	11.2	±1.6	28.9	±2.1	27.0	±1.8	56.6	±2.1
Race/Ethnicity																	
	White, non-Hispanic	7.6	±1.1	14.4	±1.4	14.5	±1.2	29.5	±1.6	8.7	±1.5	25.1	±2.1	22.7	±1.6	53.9	±2.0
	African American	5.3	±1.1	7.7	±1.3	13.0	±1.6	23.3	±2.0	3.5	±1.1	13.5	±2.1	17.1	±2.1	39.0	±2.8
	Hispanic	5.5	±1.3	8.0	±1.7	13.6	±1.7	27.1	±2.3	2.9	±0.8	10.7	±1.8	17.9	±2.0	44.6	±3.0
	Other	8.9	±2.0	12.6	±2.4	14.7	±2.5	26.1	±3.4	10.0	±2.7	20.4	±2.7	22.6	±3.7	47.8	±4.1
Grade																	
	6 th	6.0	±1.0	9.5	±1.5	7.8	±0.9	16.8	±1.5	NA	NA	NA	NA	NA	NA	NA	NA
	7 th	7.0	±1.2	11.7	±1.3	14.2	±1.7	28.0	±2.0	NA	NA	NA	NA	NA	NA	NA	NA
	8 th	7.1	±1.1	13.9	±1.7	19.5	±1.7	37.3	±2.2	NA	NA	NA	NA	NA	NA	NA	NA
	9 th	NA	NA	NA	NA	NA	NA	NA	NA	6.5	±1.4	18.2	±2.5	19.3	±2.3	44.7	±2.9
	10 th	NA	NA	NA	NA	NA	NA	NA	NA	7.0	±1.7	19.4	±2.1	19.5	±2.2	47.5	±2.2
	11 th	NA	NA	NA	NA	NA	NA	NA	NA	7.3	±1.4	21.4	±2.5	23.2	±2.5	52.8	±2.8
	12 th	NA	NA	NA	NA	NA	NA	NA	NA	6.4	±1.3	21.2	±3.0	21.5	±2.7	52.2	±3.8
Region																	
	Panhandle	9.9	±2.0	17.3	±2.7	15.3	±2.3	29.6	±2.5	9.8	±2.4	26.4	±5.7	22.3	±2.3	51.1	±3.2
	Northeast	6.8	±1.3	12.8	±2.0	15.4	±3.1	30.2	±4.4	7.7	±2.4	23.4	±3.6	21.9	±3.8	50.4	±3.8
	North Central	6.8	±2.3	11.5	±2.6	13.5	±3.4	25.8	±4.5	7.8	±2.6	21.2	±4.4	19.6	±3.8	48.2	±4.6
	Tampa Bay	7.7	±1.9	12.5	±2.1	16.9	±2.5	29.9	±2.9	8.3	±3.5	20.8	±3.3	25.1	±2.8	56.5	±4.3
	South Central	8.0	±2.3	15.6	±3.0	14.9	±3.3	30.0	±3.8	8.9	±4.1	24.2	±4.2	24.8	±3.9	51.8	±4.3
	Palm Beach/Broward	3.9	±1.5	7.3	±2.6	12.0	±2.0	26.7	±2.5	5.3	±1.8	16.6	±3.3	19.7	±2.8	46.0	±5.4
	Dade/Monroe	6.4	±1.6	8.1	±2.0	12.0	±1.9	22.4	±2.6	2.2	±0.6	9.8	±2.5	14.4	±3.2	38.8	±3.8
	Total	6.9	±0.7	11.9	±1.0	14.1	±1.0	27.6	±1.3	6.7	±1.0	19.8	±1.5	20.7	±1.2	48.6	±1.6

		Smokeless Tobacco						Education received in past year					
		High School						High School			Middle School		
		Bought in store N=747		ID checked, for those buying in store N=488		Those <18 years old who bought in store and were refused purchase N=410		Smokeless tobacco education N=10,337			Smokeless tobacco education N=11,564		
		%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Grade													
	6 th	NA	NA	NA	NA	NA	NA	NA	NA	50.7	+4.8		
	7 th	NA	NA	NA	NA	NA	NA	NA	NA	42.3	+3.1		
	8 th	NA	NA	NA	NA	NA	NA	NA	NA	32.9	+2.9		
	9 th	21.4	+5.9	35.2	+9.0	47.1	+12.0	36.8	+4.0	NA	NA		
	10 th	22.1	+7.6	42.5	+12.1	47.9	+9.8	32.6	+3.3	NA	NA		
	11 th	35.7	+7.4	35.2	+9.8	43.4	+10.3	23.1	+2.4	NA	NA		
	12 th	46.7	+8.6	50.4	+10.6	28.3*	+12.2	21.9	+2.4	NA	NA		
	Total	29.1	+4.4	40.1	+5.9	43.9	+5.8	30.0	+1.8	42.1	+2.6		

*Indicated fewer than 20 positive responses

		Average age of first use -- High School				Smokeless tobacco use by number of friends who use smokeless tobacco			
		Smokeless tobacco N=1,810		Cigar N=3,882		N=21,576			
		Average	95% CI	Average	95% CI			%	95% CI
Sex									
	Female	12.3	+0.35	14.0	+0.18	No friends	2.3	+0.3	
	Male	12.0	+0.20	13.4	+0.16	1-2 friends	12.9	+1.3	
Race/Ethnicity						3-4 friends	24.8	+2.4	
	White, non-Hispanic	12.4	+0.24	13.7	+0.16	Not sure	8.4	+1.3	
	African American	10.3	+0.41	13.7	+0.29				
	Hispanic	12.4	+0.45	13.7	+0.25				
	Other	11.1	+0.47	12.9	+0.37				
Region									
	Panhandle	11.5	+0.41	13.5	+0.39				
	Northeast	11.7	+0.43	13.5	+0.29				
	North Central	12.5	+0.33	13.5	+0.31				
	Tampa Bay	11.9	+0.61	13.5	+0.43				
	South Central	12.1	+0.41	13.8	+0.47				
	Palm Beach/Broward	12.6	+0.43	13.8	+0.20				
	Dade/Monroe	12.1	+0.94	13.8	+0.45				
	Total	12.1	+0.20	13.6	+0.14	Total	6.8	+0.6	

Florida Department of Health
Bureau of Epidemiology
2020 Capital Circle S.E.
Bin # A-12
Tallahassee, FL 32399-1720

Reported by
Ursula E. Bauer and Tammie M. Johnson
Bureau of Epidemiology
Florida Department of Health
(850) 488-2905

Florida Pilot Program on Tobacco Control
Governor's Office
(850) 488-5576

WWW.STATE.FL.US/TOBACCO

Buddy MacKay
Governor

James T. Howell, M.D., M.P.H.
Secretary, Department of Health