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Flavored-Little-Cigar and Flavored-Cigarette Use Among U.S. Middle and High School Students

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Abstract

Purpose—Flavors can mask the harshness and taste of tobacco, making flavored tobacco products appealing to youth. We assessed the prevalence and correlates of flavored-little-cigar and flavored-cigarette use among U.S. middle and high school students in 2011.

Methods—Data were obtained from the 2011 National Youth Tobacco Survey, a nationally representative school-based survey of U.S. students in grades 6–12. National estimates of current flavored-little-cigar use, flavored-cigarette use, and combined use of either product were calculated overall and among current smokers by respondent characteristics, including sex, race/ethnicity, school level, and grade. Additionally, intention to quit tobacco and smoking frequency were assessed by flavored product use.

Results—The overall prevalence of current use was 4.2% for flavored cigarettes, 3.3% for flavored little cigars, and 6.3% for either product. Among current cigar smokers, 35.9% reported using flavored little cigars, and among current cigarette smokers, 35.4% reported using flavored cigarettes. Among current cigar or cigarette smokers, 42.4% reported using flavored little cigars or flavored cigarettes. Flavored product use among current smokers was higher among non-Hispanic whites than among blacks and Hispanics, higher among high school students than middle school students, and increased with grade. Among cigar smokers, prevalence of no intention to quit tobacco was higher among flavored-little-cigar users (59.7%) than nonusers (49.3%).

Conclusions—More than two fifths of U.S. middle and high school smokers report using flavored little cigars or flavored cigarettes, and disparities in the use of these products exist across subpopulations. Efforts are needed to reduce flavored tobacco product use among youth.

Keywords

Smoking; Tobacco; Flavoring agents; Adolescent; Surveys

Tobacco smoking remains the single largest preventable cause of disease and premature death among both men and women in the United States [1]. Health effects associated with

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smoking include heart disease, cancer, pulmonary disease, adverse reproductive outcomes, and the exacerbation of multiple chronic health conditions [2]. During 2000–2011, current tobacco use and current cigarette use declined significantly among U.S. middle and high school students. However, in 2011, current tobacco use prevalence among middle school and high school students was still 7.1% and 23.2%, respectively, while current cigarette use prevalence was 4.3% and 15.8%, respectively [3].

Flavors can mask the natural harshness and taste of tobacco, making flavored tobacco products easier to use and increasing their appeal among youth [4–7]. Advertising for flavored tobacco products has been targeted toward youth [4], and flavored product use may influence the establishment of lifelong tobacco-use patterns among younger individuals [8]. In particular, menthol, a flavor-characterizing additive often used in cigarettes, is likely associated with increased initiation and progression to regular cigarette smoking, increased dependence, and reduced success in smoking cessation, especially among African-Americans [9]. In 2009, the U.S. Food and Drug Administration (FDA) prohibited certain characterizing flavors in cigarettes, excluding menthol [10,11]. However, mentholated cigarettes and other flavored tobacco products, such as flavored cigars, cigarillos, and little cigars, can still be legally manufactured, distributed, and sold. Little cigars are comparable to cigarettes with regard to shape, size, filters, and packaging, and the tobacco industry has promoted little cigars as a lower-cost alternative to cigarettes [12]. Evidence from tobacco industry research documents also shows that the percent of adult cigarette smokers who could accurately identify a little cigar was “surprisingly low” [13], and that many assumed a little cigar described only as “a new kind of smoke” was “another cigarette brand” [14].

Cigars contain the same toxic and carcinogenic compounds found in cigarettes and are not a safe alternative to cigarettes [15]. Regular cigar smoking is associated with increased risk for cancers of the lung, larynx, oral cavity, and esophagus [15]. In addition, cigar smokers who inhale, particularly those who smoke several cigars per day, are at an increased risk of developing coronary heart disease and chronic obstructive pulmonary disease [15]. Federal excise tax data indicate that although consumption of cigarettes decreased 32.8% during 2000–2011, consumption of noncigarette combustible tobacco, which includes cigars and loose tobacco, increased 123.1% over the same period [16]. These changes in cigar smoking are not limited to adults; youth have higher rates of cigar use than adults [17], and increases in cigar smoking have been documented among non-Hispanic black high school students during 2009–2011 [3].

A recent study found that more than two fifths of U.S. adult current cigar smokers used flavored cigars during 2009–2010 [18]. However, the prevalence of flavored-cigar use among youth has not been previously reported. To address this research need, we assessed the prevalence and sociodemographic correlates of flavored-little-cigar and flavored-cigarette smoking among a nationally representative sample of U.S. middle and high school students who completed the 2011 National Youth Tobacco Survey (NYTS). We also assessed flavored-cigarette (including menthol) use because of the potential for youth to confuse flavored little cigars with flavored cigarettes.

Methods

Sample

The NYTS is an ongoing school-based survey that collects information on key tobacco-related measures from U.S. middle school (grades 6–8) and high school (grades 9–12) students [19,20]. Respondents are asked to complete a self-administered, pencil and paper questionnaire in a classroom setting. Parental permission is obtained for each student and participation is voluntary at the school and student level. At the student level, participation is anonymous. In 2011, $n = 18,866$ respondents from 178 schools completed the NYTS questionnaire. The school response rate was 83.2% and the student response rate was 87.4%, yielding an overall response rate of 72.7%. The NYTS research protocol was approved by the U.S. Office of Management and Budget; no ethics approval was sought for this study because only secondary data were used.

NYTS sampling procedures have been described elsewhere [19]. In brief, the NYTS utilizes a three-stage cluster sampling procedure to generate cross-sectional, nationally representative samples of U.S. middle and high school students. The sampling frame consists of all public school, Catholic school, and other private school students enrolled in regular middle and high schools in grades 6–12 in the 50 U.S. states and the District of Columbia. Alternative schools, special education schools, Department of Defense-operated schools, vocational schools, and students enrolled in regular schools unable to complete the questionnaire without special assistance are excluded.

Measures

Flavored-little-cigar use—Current use of cigars was determined using the question, “During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?” Categorical response options included: “0 days”, “1 or 2 days”, “3 to 5 days”, “6 to 9 days”, “10 to 19 days”, “20 to 29 days”, and “all 30 days”. Respondents who indicated a response other than “0 days” were classified as current cigar smokers. Current use of flavored little cigars was determined using the question, “During the past 30 days, which of the following tobacco products did you use on at least one day?” Response options included: “roll-your-own cigarettes”; “flavored cigarettes, such as Camel Crush”; “clove cigars”; “flavored little cigars”; “smoking tobacco from a hookah or a water pipe”; “snus, such as camel or Marlboro Snus”; “dissolvable tobacco products, such as Ariva,” “Stonewall, Camel robs, Camel sticks, or Camel strips”; “electronic cigarettes or e-cigarettes, such as Ruyan or NJOY”; “some other new tobacco products not listed here”; and “I have never tried any of the products listed above or any new tobacco product”. Respondents who indicated “flavored little cigars” were considered current flavored-little-cigar smokers.

Flavored-cigarette use—Current use of cigarettes was determined using the question, “During the past 30 days, on how many days did you smoke cigarettes?” Categorical response options included: “0 days”, “1 or 2 days”, “3 to 5 days”, “6 to 9 days”, “10 to 19 days”, “20 to 29 days”, and “all 30 days”. Respondents who indicated a response other than “0 days” were classified as current cigarette smokers. Current use of flavored cigarettes was determined using the question, “During the past 30 days, which of the following tobacco

products did you use on at least one day?” Respondents who indicated “flavored cigarettes, such as Camel Crush” were considered current flavored-cigarette smokers.

Flavored little cigar or flavored cigarette use—Current tobacco smokers were defined as current users of either cigars or cigarettes. Current use of either flavored little cigars or flavored cigarettes was defined as past 30-day use of either product.

Quit intentions and smoking frequency—Intention to quit was determined using the question, “Are you seriously thinking about quitting the use of all tobacco?” Response options included: “I have never used tobacco”, “yes, within the next 30 days”, “yes, within the next 6 months”, “yes, within longer than 6 months”, and “I am not thinking about quitting the use of all tobacco”.

Smoking frequency was determined using the questions, “During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?” and “During the past 30 days, on how many days did you smoke cigarettes?” Response options included: “0 days”, “1 or 2 days”, “3 to 5 days”, “6 to 9 days”, “10 to 19 days”, “20 to 29 days”, and “All 30 days”. Due to sample size constraints, “3 to 5 days” and “6 to 9 days”, as well as “10 to 19 days” and “20 to 29 days” were aggregated during analysis.

Sociodemographic characteristics—Sociodemographic characteristics assessed included sex (girl or boy); race/ethnicity (Hispanic, non-Hispanic white, non-Hispanic black, non-Hispanic multiple races, or non-Hispanic other); school level (middle or high school); and grade (6th, 7th, 8th; 9th, 10th, 11th, or 12th). The non-Hispanic “other” category included respondents who were Asian, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander; these three subpopulations were combined due to high relative standard error (30%) of the individual estimates.

Data analysis

Data were analyzed using SAS-callable SUDAAN, version 9.2 (SAS Institute Inc., Research Triangle Park, NC). The final student-level response data were weighted to reflect the initial probabilities of selection and nonresponse patterns, to mitigate large variations in sampling weights, and to poststratify the data to known sampling frame characteristics. National estimates were calculated overall and by respondent sociodemographic characteristics. Differences in point estimates were conservatively considered statistically significant if 95% confidence intervals did not overlap.

Results

Flavored-little-cigar use

The overall prevalence of current flavored-little-cigar use was 3.3% (Table 1). Flavored-little-cigar use was higher among boys (4.4%) compared with girls (2.3%), and higher among non-Hispanic whites (3.4%), those of non-Hispanic multiple races (5.1%), and Hispanics (3.5%) compared with those of other non-Hispanic races (1.6%). Flavored-little-cigar use was higher among high school students (5%) compared with middle school students (1.2%), and generally increased with grade.

The overall prevalence of current cigar, cigarillo, or little-cigar use was 8.1% (Table 1). Among these cigar smokers, 35.9% reported current use of flavored little cigars. Flavored-little-cigar use among cigar smokers did not differ between girls (35.1%) and boys (36.7%), but prevalence was lower among non-Hispanic blacks (27.3%) compared with non-Hispanic whites (40.4%). Flavored-cigar use among cigar smokers was higher among high school students (38.4%) compared with middle school students (26.3%), and generally increased with grade.

Among current cigar smokers, the prevalence of those not thinking about quitting tobacco use was higher among current flavored-little-cigar users (59.7%) than nonusers (49.3%) (Table 2). No differences were observed in the number of days smoked in the past 30 days between flavored-little-cigar users and nonusers.

Flavored-cigarette use

The overall prevalence of current flavored-cigarette use was 4.2% (Table 3). No difference in flavored-cigarette use was observed between girls (4%) and boys (4.5%). By race/ethnicity, the prevalence of flavored-cigarette use was lower among non-Hispanic blacks (2%) compared with non-Hispanic whites (4.9%), those of non-Hispanic multiple races (5.6%), and Hispanics (4.2%). Flavored-cigarette use was higher among high school students (6.4%) compared with middle school students (1.3%), and generally increased with grade.

The overall prevalence of current cigarette use was 10.8% (Table 3). Among these cigarette smokers, 35.4% reported current use of flavored cigarettes. Flavored-cigarette use among cigarette smokers did not differ between girls (38.5%) and boys (33.7%), but prevalence was lower among non-Hispanic blacks (19.7%) compared with non-Hispanic whites (40.4%) and those of non-Hispanic multiple races (40.4%). Flavored-cigarette use among cigarette smokers was higher among high school students (38.8%) compared with middle school students (20.6%), and generally increased with grade.

Among current cigarette smokers, the prevalence of those who were thinking about quitting tobacco use within the next 30 days was lower among current flavored-cigarette users (9.8%) compared with nonusers (18.4%) (Table 2). The prevalence of current cigarette smokers who reported smoking 10 to 29 days or all 30 days within the past 30 days was higher among flavored-cigarette users (28.5% and 33.9%, respectively) than nonusers (18.9% and 17.2%, respectively).

Flavored-little-cigar or flavored-cigarette use

The overall prevalence of current flavored-little-cigar or flavored-cigarette use was 6.3% (Table 4). Flavored-little-cigar or flavored-cigarette use was higher among boys (7.4%) compared with girls (5.3%), and higher among non-Hispanic whites (7%), those of non-Hispanic multiple races (7.8%), and Hispanics (6.6%) compared with non-Hispanic blacks (4.4%) and those of other non-Hispanic races (3.7%). Flavored-little-cigar or flavored-cigarette use was higher among high school students (9.6%) compared with middle school students (2.2%), and generally increased with grade.

The overall prevalence of current cigar or cigarette use was 13.8% (Table 4). Among these smokers, 42.4% reported current use of flavored little cigars or flavored cigarettes. Among current smokers, flavored-little-cigar or flavored-cigarette use did not differ between girls (42.8%) and boys (42.7%), but prevalence was lower among non-Hispanic blacks (28.9%) and Hispanics (37.9%) compared with non-Hispanic whites (47.4%). Among current smokers, flavored-little-cigar or flavored-cigarette use was higher among high school students (45.3%) compared with middle school students (29.8%), and generally increased with grade.

Among current cigarette or cigar smokers, the prevalence of those who were thinking about quitting tobacco use within the next 30 days was lower among current flavored-little-cigar or flavored-cigarette users (12.1%) than nonusers (22.3%) (Table 2).

Discussion

Flavors can mask the natural harshness and taste of tobacco, making flavored tobacco products easier to use and increasing their appeal among youth [4–7]; menthol cigarette use is likely associated with increased initiation and progression to regular smoking, increased dependence, and reduced cessation [9]. This study used a nationally representative sample of middle and high school students to assess the prevalence and correlates of flavored-little-cigar and flavored-cigarette (including menthol) use among U.S. youth in 2011. The findings indicate that a considerable proportion of U.S. middle and high school students who smoke tobacco report using flavored little cigars or flavored cigarettes; 35.9% of current cigar smokers reported using flavored little cigars, 35.4% of current cigarette smokers reported using flavored cigarettes, and 42.4% of current smokers reported use of either flavored little cigars or flavored cigarettes. Moreover, current use of any of these flavored products was particularly high among certain subpopulations, including boys, non-Hispanic whites and those of non-Hispanic other races, high school students, and students in higher grade levels. Among current smokers, similar patterns of flavored-product use were observed across subpopulations; however, no difference was observed by sex.

This study's finding that over one third of current cigar smokers had smoked flavored cigars in the past 30 days is consistent with recently observed increased trends in flavored tobacco consumption among all individuals in the U.S. [21,22]. The FDA prohibited flavorings in cigarettes, excluding menthol, in September 2009 [10,11]; however, other flavored products, including cigars, remain available and have increased in popularity in recent years. During 1997–2007, little cigar sales increased 240% [21], with flavored brands comprising nearly four fifths of the market share [22]. The high prevalence of flavored-cigar use observed among youth cigar smokers is also consistent with estimates calculated among U.S. adults. During 2009–2010, the national prevalence of flavored-cigar use among adult cigar smokers was 42.9%, with younger adults aged 18–24 years having the greatest prevalence (57.1%) [18]. Among current cigar smokers in this study, flavored-little-cigar smoking was 35.9%, with prevalence increasing by grade level from 18.2% among 6th graders to 43.1% among 12th graders.

A total of 35.4% of cigarette smokers reported using flavored cigarettes, which could indicate misclassification considering that the FDA ban on flavorings in cigarettes, excluding menthol, went into effect over 15 months prior to the date on which the 2011 NYTS was fielded. Consumers have previously been observed stockpiling cigarettes following the adoption of tobacco excise tax increases; however, because of the perishable nature of cigarettes, it is not likely that stockpiling can explain the large proportion of youth smokers reporting flavored-cigarette use that long after the ban [23,24]. Further, the ban is also actively enforced [25], so the high prevalence of flavored-cigarette use is not likely due to noncompliance. Instead, students who reported using flavored cigarettes may have been using flavored little cigars, which are comparable to cigarettes with regard to shape, size, filters, and packaging [12–14]. Approximately 40% of flavored-cigarette users in this study reported that their usual cigarette was mentholated, which suggests that the remaining 60% of flavored-cigarette smokers could have used products flavored with something other than menthol. However, it is important to note that respondents who reported flavored-cigarette use could have been referring to menthol products, the survey question used to determine flavored-cigarette use referenced a menthol brand (Camel Crush), and respondents who reported that their usual cigarette was not mentholated may still have used a menthol cigarette during the assessed period.

Disparities in flavored-product use across subpopulations in this study were consistent with previously reported estimates of tobacco use among U.S. youth [3]. For example, the use of flavored little cigars or flavored cigarettes among current smokers was higher among high school students and generally increased with grade level. The reasons for these disparities are multifactorial; factors associated with tobacco use among youth include use and approval of tobacco use by peers or parents, lack of skills to resist influences to tobacco use, accessibility, availability, and price of tobacco products, and exposure to tobacco advertising [17]. No variation in flavored-product use was observed by sex, which is consistent with recent patterns of menthol cigarette use among those aged 12 years and older [26]. Flavored-product use was higher among non-Hispanic whites than blacks, which is contrary to past studies showing higher menthol use among blacks [7,26]. This finding may be the result of greater use of products with nonmenthol flavorings among whites, or more recent declines in menthol smoking among black youth; among current cigarette smokers in the 2011 NYTS, 41.1% of white students reported current menthol smoking compared with 26.8% of black students.

This study also found that among cigars smokers, intent to quit tobacco was lower among flavored-little-cigar users than nonusers, which is consistent with evidence showing increased tobacco dependence among menthol smokers [9]. Although cigars are not safe alternatives to cigarettes [15], research suggests that many individuals are poorly informed about the health risks of cigar smoking [27,28]. Cigars are also taxed at a lower rate and less expensive than cigarettes [15,29], and studies have found that the tobacco industry has targeted youth and young adults in the marketing of flavored tobacco products [17,30]. Efforts to enhance knowledge of the health risks of tobacco use and to increase cessation among youth could include coordinated, multicomponent interventions such as mass media campaigns, comprehensive community programs, price increases, and school-based policies,

which have been shown to be effective in reducing initiation, prevalence, and the intensity of youth smoking [17].

Strengths of this study include the use of a large, nationally representative sample and the ability to assess variations in flavored combustible tobacco product use across multiple subpopulations. However, at least five study limitations exist. First, data were collected from youth enrolled in traditional middle or high schools and may not be representative of all youth, those who drop out of school, and those who are home-schooled or enrolled in alternative, vocational, or special education schools. Nonetheless, data from the Current Population Survey indicate that 98.5% of U.S. youth aged 10–13 years and 97.1% of those 14–17 years were enrolled in a traditional school in 2011 [31]. Second, the self-reported nature of the data could have introduced recall or response bias. However, the recall period of 30 days was relatively short and self-reported survey questions of tobacco-related behaviors have previously demonstrated good test-retest reliability among youth [32]. Third, the data do not distinguish between infrequent tobacco users, such as those who use tobacco once per month, and heavy users, such as those who use tobacco daily. Fourth, the questionnaire wording did not make it possible to distinguish between specific flavorings, such as menthol, and the survey wording referenced a menthol brand as an example of a flavored cigarette. Finally, estimates of current cigar and cigarette smoking might differ from those derived from other youth surveillance systems; these differences can be explained, in part, by differences in the survey topic, employed methods, and the age and setting of the target population. However, evidence suggests that relative trends in smoking rates are similar across youth surveys [17].

This study is the first to assess the prevalence and socio-demographic correlates of flavored little-cigar and flavored-cigarette use among U.S. youth. The findings reveal that more than two fifths of U.S. middle and high school tobacco smokers reported using flavored little cigars or flavored cigarettes in 2011, and that disparities in the use of these products exist across subpopulations.

Efforts are needed to reduce flavored-tobacco-product use among youth. Efforts to reduce use of these products among youth could include prohibiting flavors in cigars through the 2009 Family Smoking Prevention and Tobacco Control Act, which grants the FDA the authority to regulate these products [10]. Additionally, at the local level, New York, New York and Providence, Rhode Island have enacted city-wide ordinances that prohibit the sale of flavored tobacco products, including flavored little cigars. Given that these local ordinances have been challenged and upheld in U.S. District Court, they represent actions other local jurisdictions may wish to consider [33,34].

Other interventions that are proven to prevent and reduce tobacco use among youths include media campaigns, restrictions on advertisements and promotions, increasing the price of tobacco products, and reducing the availability of tobacco products for purchase by youths [35,36]. However, continued access to low-priced, unregulated, and flavored cigarette-like products such as little cigars could diminish the public health impact these interventions would otherwise have on preventing youth initiation, reducing consumption, and increasing cessation.

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IMPLICATIONS AND CONTRIBUTION

Flavors can mask the harshness and taste of tobacco, making flavored tobacco products appealing to youth. This study found that more than two fifths of U.S. middle and high school tobacco smokers report using flavored little cigars or flavored cigarettes. Efforts are needed to reduce flavored tobacco product use among youth.

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Table 1
Current use of flavored little cigars among U.S. middle and high school students, by selected characteristics, 2011

Characteristic	All respondents				Current cigar smokers	
	Current use of cigars ^d (n = 18,537)		Current use of flavored little cigars ^b (n = 18,821)		Current use of flavored little cigars ^b (n = 1,503)	
	%	95% CI ^c	%	95% CI ^c	%	95% CI
Sex						
Girl	5.3	4.5–6.2	2.3	1.8–2.8	35.1	30.1–40.4
Boy	10.7	9.6–11.9	4.4	3.7–5.1	36.7	32.1–41.5
Race/Ethnicity						
White, non-Hispanic	7.7	6.5–9.1	3.4	2.8–4.2	40.4	35.2–45.9
Black, non-Hispanic	9.2	7.7–11	2.9	2.2–3.7	27.3	21.4–34.1
Other, non-Hispanic ^c	4.4	3.2–5.9	1.6	1–2.7	26.9	13.2–47.2
Multiple race, non-Hispanic	10.2	8.1–12.6	5.1	3.6–7.3	45.3	32.2–59.1
Hispanic	9	8.1–10	3.5	2.9–4.1	30.7	25.6–36.3
School level						
Middle school (Grades 6–8)	3.5	2.8–4.2	1.2	1–1.5	26.3	21.4–31.8
High school (Grades 9–12)	11.6	10.5–12.8	5	4.2–5.8	38.4	34–42.9
Grade						
6	1.7	1.1–2.8	.4	.2–.8	18.2	11–28.6
7	4.1	3.1–5.3	1.3	.9–1.9	23	17.3–30
8	4.6	3.6–5.8	1.9	1.5–2.5	32	22.6–43.2
9	7.4	5.8–9.6	3	2.2–4.2	33.6	25.8–42.5
10	10.2	8.7–11.9	4.1	3.1–5.4	36	27.8–45.2
11	12.4	10.6–14.4	5.3	4.3–6.6	37.5	31.3–44.1
12	17.4	15–20	8	6.4–10	43.1	37.2–49.1
Overall	8.1	7.2–9	3.3	2.9–3.9	35.9	32–40

Note: In total, n = 18,866 respondents completed the 2011 National Youth Tobacco Survey. Data were adjusted for nonresponse and weighted to provide nationally representative estimates.

Abbreviation: CI = confidence interval.

^d Respondents who answered between “1 or 2 days” and “all 30 days” to the question, “During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?”

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^b Respondents who answered “flavored little cigars” to the question, “During the past 30 days, which of the following tobacco products did you use on at least one day?”

^c Other, non-Hispanic includes the following races: Asian, American Indian or Alaska Native, and Native Hawaiian or Pacific Islander.

Table 2

Quit intentions and smoking frequency among U.S. middle and high school student smokers, by flavored-cigarette and flavored-little-cigar use, 2011

	Current cigar smokers ^d (n = 1,503)		Current cigarette smokers ^b (n = 1,943)		Current cigar or cigarette smokers (n = 2,567)	
	Not flavored-little-cigar smokers % [95% CI]	Flavored-little-cigar smokers ^c % [95% CI]	Not flavored-cigarette smokers % [95% CI]	Flavored-cigarette smokers ^d % [95% CI]	Not flavored-cigar or-cigarette smokers % [95% CI]	Flavored-cigar or-cigarette smokers % [95% CI]
Intention to quit using tobacco ^e						
Within next 30 days	20 [16.3–24.3]	12.4 [9–17]	18.4 [15.3–21.9]	9.8 [7–13.5]	22.3 [18.7–26.4]	12.1 [9.3–15.5]
Within next 6 months	11.3 [8.4–15.1]	9.8 [7.1–13.4]	10.9 [8.7–13.7]	13.6 [10.7–17.2]	10 [7.8–12.6]	12.8 [10.3–15.9]
Within longer than next 6 months	19.3 [15.7–23.6]	18.1 [14–23]	21.7 [18.6–25.1]	24.9 [20.9–29.4]	19.6 [16.5–23.2]	21 [17.8–24.5]
Not thinking about quitting	49.3 [44.5–54.2]	59.7 [54.5–64.7]	49 [44.3–53.7]	51.7 [46.7–56.6]	48.1 [44–52.2]	54.2 [50.1–58.2]
Days smoked in past 30 days ^f						
1 or 2 days	58 [54.3–61.6]	51.5 [46.1–56.8]	37.7 [33.9–41.7]	17.7 [13–23.6]	g	g
3 to 9 days	23.5 [20.7–26.6]	30.6 [25.9–35.9]	26.2 [23.1–29.5]	19.8 [16.6–23.5]	g	g
10 to 29 days	7.4 [5.5–9.8]	9.5 [6.5–13.7]	18.9 [16.4–21.7]	28.5 [23.5–34.1]	g	g
All 30 days	11.1 [8.8–13.8]	8.3 [6–11.4]	17.2 [14.5–20.4]	33.9 [28.3–40]	g	g

Note: Column totals may not add to 100% due to rounding. In total, n = 18,866 respondents completed the 2011 National Youth Tobacco Survey. Data were adjusted for nonresponse and weighted to provide nationally representative estimates.

Abbreviation: CI = confidence interval.

^a Respondents who answered between “1 or 2 days” and “all 30 days” to the question, “During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?”

^b Respondents who answered between “1 or 2 days” and “all 30 days” to the question, “During the past 30 days, on how many days did you smoke cigarettes?”

^c Respondents who answered “flavored little cigars” to the question, “During the past 30 days, which of the following tobacco products did you use on at least one day?”

^d Respondents who answered “flavored cigarettes” to the question, “During the past 30 days, which of the following tobacco products did you use on at least one day?”

^e Determined using the question, “Are you seriously thinking about quitting the use of all tobacco?”

^f Determined using the questions, “During the past 30 days, on how many days did you smoke cigarettes?” and “During the past 30 days, on many days did you smoke cigars, cigarillos, or little cigars?”

^g Estimates not calculated due to multiple responses among smokers who smoked both flavored little cigars and flavored cigarettes.

Table 3

Current use of flavored cigarettes among U.S. middle and high school students, by selected characteristics, 2011

Characteristic	All respondents			Current cigarette smokers					
	Current use of cigarettes ^a (n = 18,273)			Current use of flavored cigarettes ^b (n = 18,823)			Current use of flavored cigarettes ^b (n = 1,943)		
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
Sex									
Girl	9.6	8–11.5	4	3.2–4.9	38.5	34–43.2			
Boy	11.9	10.3–13.9	4.5	3.7–5.5	33.7	30.1–37.6			
Race/Ethnicity									
White, non-Hispanic	11.5	9.3–14.1	4.9	3.7–6.3	40.4	36–45.1			
Black, non-Hispanic	7.8	5.9–10.4	2	1.4–3	19.7	13–28.8			
Other, non-Hispanic	7.1	5.2–9.6	2.9	1.9–4.5	33.3	19.7–50.4			
Multiple race, non-Hispanic ^c	13.1	10.5–16.2	5.6	3.8–8	40.4	30–51.6			
Hispanic	11.7	10.4–13.1	4.2	3.6–4.8	28.2	24.1–32.6			
School level									
Middle school (Grades 6–8)	4.3	3.5–5.2	1.3	1–1.7	20.6	17.4–24.2			
High school (Grades 9–12)	15.8	13.6–18.2	6.4	5.3–7.7	38.8	35–42.7			
Grade									
6	2.6	1.7–4	.5	.3–1	11.7	6.6–20			
7	4.4	3.4–5.6	1.3	.9–2	23.9	15.5–34.9			
8	5.9	4.8–7.2	2	1.5–2.7	22	17.2–27.8			
9	11.2	8.9–14	3.9	2.9–5.2	30.9	25.2–37.3			
10	14.7	11.9–18.1	6.3	5–7.9	41.5	34.1–49.3			
11	16.8	14–19.9	6.9	5.4–8.9	38.1	32–44.7			
12	21.5	18.7–24.5	9.3	7.4–11.6	42.3	36.1–48.7			
Overall	10.8	9.3–12.6	4.2	3.5–5.1	35.4	32.2–38.8			

Note: In total, n = 18,866 respondents completed the 2011 National Youth Tobacco Survey. Data were adjusted for nonresponse and weighted to provide nationally representative estimates.

Abbreviation: CI = confidence interval.

^a Respondents who answered between “1 or 2 days” and “all 30 days” to the question, “During the past 30 days, on how many days did you smoke cigarettes?”

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^b Respondents who answered “flavored cigarettes” to the question, “During the past 30 days, which of the following tobacco products did you use on at least one day?”

^c Other, non-Hispanic includes the following races: Asian, American Indian or Alaska Native, and Native Hawaiian or Pacific Islander.

Table 4

Current use of flavored little cigars or flavored cigarettes among U.S. middle and high school students, by selected characteristics, 2011

Characteristic	All respondents			Current cigar or cigarette smokers			
	Current use of cigars or cigarettes ^a (n = 18,736)	Current use of flavored little cigars or flavored cigarettes ^b (n = 18,832)	Current use of flavored little cigars or flavored cigarettes ^b (n = 2,567)	%	95% CI	%	95% CI
Sex							
Girl	11.3	9.7–13.2	5.3	42.8	4.4–6.3	42.8	38.6–47.2
Boy	16.1	14.3–18	7.4	42.7	6.4–8.6	42.7	38.7–46.9
Race/Ethnicity							
White, non-Hispanic	14.2	11.9–16.8	7	47.4	5.6–8.7	47.4	43–52
Black, non-Hispanic	12.9	10.5–15.7	4.4	28.9	3.4–5.5	28.9	23.1–35.5
Other, non-Hispanic	8.5	6.6–10.9	3.7	35.8	2.5–5.5	35.8	22.9–51.1
Multiple race, non-Hispanic ^c	15.8	13.2–18.9	7.8	46.8	5.9–10.1	46.8	37.9–55.9
Hispanic	14.5	13.3–15.9	6.6	37.9	5.8–7.4	37.9	33.4–42.5
School level							
Middle school (Grades 6–8)	5.6	4.7–6.8	2.2	29.8	1.8–2.6	29.8	26.2–33.6
High school (Grades 9–12)	20	18.1–22.1	9.6	45.3	8.3–11	45.3	41.5–49.1
Grade							
6	3.2	2.1–4.7	.8	20	.5–1.4	20	13.8–28
7	6.1	4.8–7.7	2.2	29.7	1.6–3	29.7	23.8–36.3
8	7.6	6.3–9.2	3.4	33.9	2.8–4.1	33.9	28.4–39.9
9	13.5	10.9–16.6	5.8	39.7	4.4–7.7	39.7	33–46.8
10	18.5	16–21.2	8.7	45	7.2–10.5	45	38.3–51.9
11	21.3	18.5–24.3	10.4	46.1	8.8–12.4	46.1	41.6–50.7
12	28.4	25.5–31.5	14.3	48.1	12–17	48.1	42.7–53.7
Overall	13.8	12.2–15.5	6.3	42.4	5.5–7.3	42.4	39–45.8

Note: In total, n = 18,866 respondents completed the 2011 National Youth Tobacco Survey. Data were adjusted for nonresponse and weighted to provide nationally representative estimates.

Abbreviation: CI = confidence interval.

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^a Respondents who answered between "1 or 2 days" and "all 30 days" to the question, "During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?"

^b Respondents who answered "flavored cigarettes" or "flavored little cigars" to the question, "During the past 30 days, which of the following tobacco products did you use on at least one day?"

^c Other, non-Hispanic includes the following races: Asian, American Indian or Alaska Native, and Native Hawaiian or Pacific Islander.