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Publication Date

2000-10-01

Legacy First Look Report **4**

*The Relationship Between Cigarette Use
and Other Tobacco Products: Results from
the 1999 National Youth Tobacco Survey*

Revised Printing • October 2000

AMERICAN
LEGACY
FOUNDATION

Preamble

In November 1998, Americans won an unprecedented victory in our nation's century long fight against tobacco use and abuse. A coalition of 46 state Attorneys General successfully settled their cases with the tobacco companies amounting to \$206 billion over the first 25 years. As part of the Master Settlement Agreement (MSA), a 501(c)(3) organization was established to reduce tobacco usage in the United States. Now known as the American Legacy Foundation (Legacy), it adopted four goals:

- Reduce youth tobacco use,
- Reduce exposure to secondhand smoke among all ages and populations,
- Increase successful quit rate among all ages and populations, and
- Decrease tobacco consumption among all ages and populations.

Legacy's Board of Directors represents a diverse mix of state governors, legislators, and Attorneys General; and experts in the medical, education, and public health fields. Members include the following:

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Purpose of the First Look Report Series

The purpose of the First Look Report Series is to provide brief research findings from the National Youth Tobacco Surveys and other tobacco use surveys. The series will cover a wide range of topics including tobacco use behaviors, attitudes and beliefs about tobacco, pro- and counter-tobacco marketing efforts, results of the American Legacy Foundation Initiatives, and other policies and programs related to tobacco use.

Legacy **First Look Report 4**

The Relationship Between Cigarette Use and Other Tobacco Products: Results from the 1999 National Youth Tobacco Survey

This report was written by

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The authors would like to acknowledge the contributions of Matthew C. Farrelly, PhD^{}, Cheryl Heaton, DrPH[†], and Peter Messeri, PhD[†], who reviewed drafts of this report.*

The authors are also grateful to

David Klein for providing statistical support, Andrew Jessup for graphic design, Susan Murchie and Peter Tavernise for editorial review, and to all the schools in the survey for their cooperation.

The NYTS questionnaire was developed by the CDC Foundation and Macro International Inc. with technical support from the Office on Smoking and Health, CDC. Macro developed and implemented the NYTS sampling design, recruited schools, managed data collection and processing, and weighted the data with technical support from the Office on Smoking and Health.

*Research Triangle Institute †American Legacy Foundation

‡Prospect Associates §RAND

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Introduction

Among the various efforts to prevent tobacco use among youth, the primary focus has been on cigarettes. This is reasonable given that the prevalence of cigarette use is greater than the prevalence of use of any other single tobacco product. In recent years, however, there has been growing concern among public health officials and policy makers as the use of other products such as smokeless tobacco, bidis,¹ and cigars has been rising. This trend is particularly troubling since the health consequences associated with such products may be even greater than for cigarettes. Bidis, for example, are not filtered and have been found to contain three to four times the nicotine of regular cigarettes (CDC, 1999). They are also offered in flavored versions and thus have high appeal to children.

This report presents data from the 1999 National Youth Tobacco Survey (NYTS) that describes the use of tobacco products, other than cigarettes, among a nationally representative sample of middle and high school students. The report also examines the relationship between cigarette use and the use of other tobacco products. Tobacco products categorized as “other” than cigarettes that are discussed in this report include smokeless tobacco,² cigars, pipes, bidis, and kreteks.³ The two central questions and main findings discussed in the report are summarized below.

1. What is the prevalence of the use of other tobacco products among youth?

- Approximately 15 percent of youth in the NYTS currently use at least one other tobacco product. The use of cigars is much more prevalent than any of the other tobacco products considered in this report. The proportion of youth in the NYTS that are current users is 11.0 percent for cigars, 4.8 percent for smokeless tobacco products, 4.0 percent for kreteks, 3.9 percent for bidis, and 3.7 percent for pipe tobacco.

¹Bidis are small brown cigarettes that are hand-rolled in a tendu or temburni leaf and tied at one end with a string. India is the primary exporter of bidis to the United States.

²Smokeless tobacco products include chewing tobacco, snuff, and dip.

³Kreteks are often called clove cigarettes. They are a combination of tobacco and clove spices rolled into a cigarette.

- Young men are much more likely than young women to report use of each of these tobacco products with the exception of kreteks, where no gender differences in use patterns are observed.
- For all of the tobacco products considered except pipe tobacco, the rate of current use is higher among high school students than among middle school students.
- It is noteworthy that rates of middle school use of these products are 6.1 percent for cigars, 3.5 percent for pipes, 2.7 percent for smokeless tobacco, 2.5 percent for bidis, and 1.9 percent for kreteks.

2. What is the relationship between the use of cigarettes and the use of other tobacco products?

- Current cigarette smokers are far more likely than non-smokers to use other tobacco products.
- Among both middle school and high school students, nearly half of tobacco users report that they use two or more tobacco products.

1999 National Youth Tobacco Survey

The 1999 NYTS was designed to provide nationally representative data on tobacco-related issues for a sample of students in grades 6 to 12. The survey was administered to over 15,000 students in 131 schools across the nation in the fall of 1999. The students completed anonymous, self-administered questionnaires that included a variety of tobacco-related questions. Major topic areas include the patterns of tobacco use, minors' ability to purchase tobacco products, exposure to environmental tobacco smoke, knowledge and attitudes about tobacco, and familiarity with pro- and counter-tobacco advertising. To ensure separate analysis of African-American and Hispanic students, schools with substantial proportions of African-American and Hispanic students were oversampled. A weighting factor was applied to each student record to adjust for nonresponse and for the probability of selection, including the oversampling noted above.

Prevalence of the Use of Other Tobacco Products

Unlike other national surveys, the main purpose of the NYTS is to evaluate the patterns of youth cigarette and other tobacco use. It therefore contains detailed questions pertaining to the use of specific tobacco products other than cigarettes. Table I summarizes the questions included in the NYTS that are examined in this report.

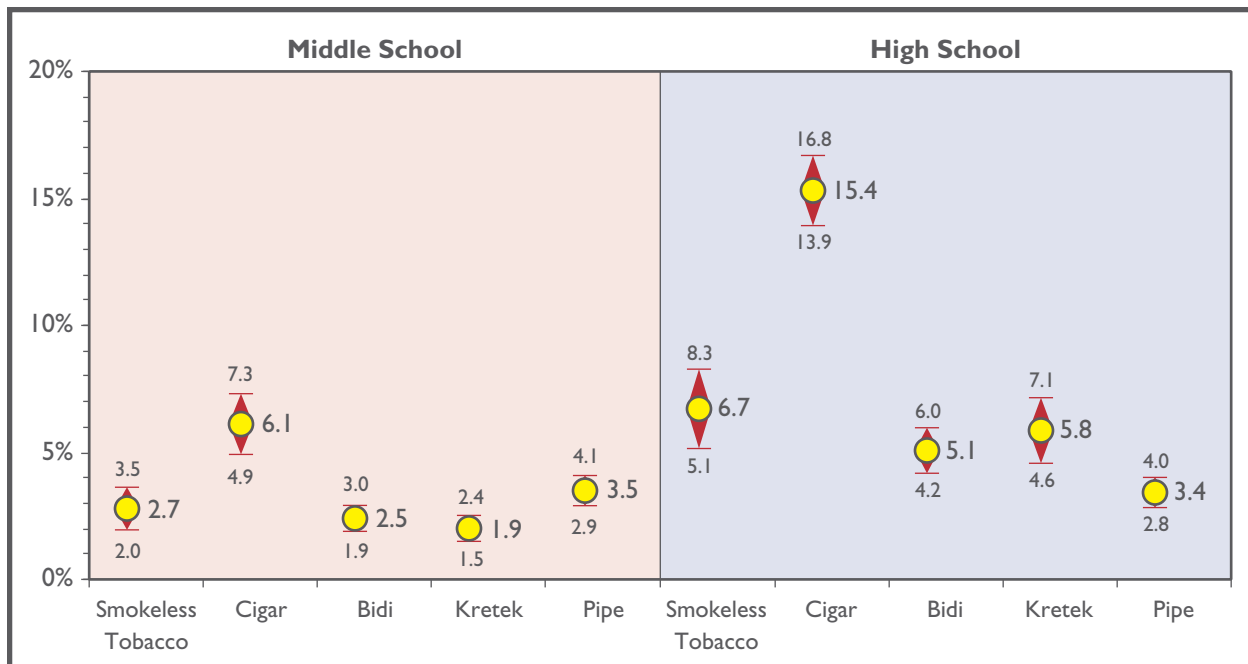
Table I: 1999 NYTS Questions Pertaining to Use of Other Tobacco Products

	Question
Smokeless Tobacco	Q37: Have you ever tried chewing tobacco, snuff, or dip such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?
	Q39: During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip?
Cigars	Q41: Have you ever tried smoking cigars, cigarillos, or little cigars, even one or two puffs?
	Q43: During the past 30 days, on how many days did you smoke a cigar, cigarillo, or little cigar?
Bidis	Q46: Have you ever tried smoking bidis, even one or two puffs?
	Q47: During the past 30 days, on how many days did you smoke bidis?
Kreteks	Q49: During the past 30 days, on how many days did you smoke kreteks?
Pipes	Q45: During the past 30 days, on how many days did you smoke tobacco in a pipe?

From these questions we can construct measures of (1) lifetime use (with the exception of kreteks and pipes) and (2) current use of each product. Current use is defined as having used the product on at least one occasion in the last 30 days. Key findings are highlighted in the text of the report, and all results are presented in Tables A-1 through A-4 (see Appendix A). Detailed statistics, with confidence intervals, on ever use and current use of other tobacco products are presented in Tables A-1 and A-2, respectively.

The prevalence of current use of other tobacco products is summarized in Figure I. As noted in a recent CDC report (2000) that summarized data from the NYTS, there are interesting differences in prevalence of tobacco use across demographic lines. As such, a more detailed examination of the use of other tobacco products is presented below.

Figure I: Prevalence of Current Use of Other Tobacco Products



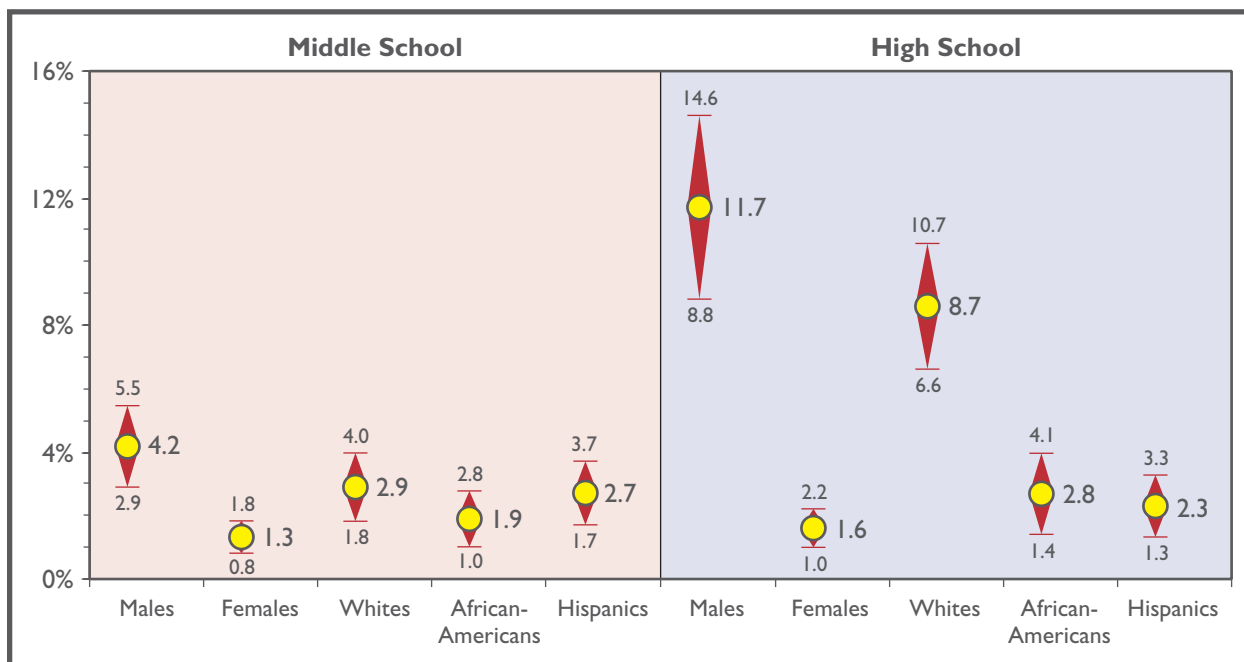
Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Prevalence of Smokeless Tobacco Use

The popularity of smokeless tobacco products has varied significantly over time. Although the sales of smokeless tobacco products fell for several years after the Surgeon General’s Report in 1986 warned that chew is not a safe substitute for cigarettes, use of smokeless tobacco products increased in the early 1990s. In recent years, however, the prevalence of smokeless tobacco use has leveled off (Johnston et al., 2000). The 1999 NYTS provides a snapshot of the current rates of use of such products among youth. In the survey, “smokeless tobacco products” are defined as chewing tobacco, snuff, and dip. An examination of the responses to the questions on lifetime and current use reveal significant differences across demographic groups. Figure 2 highlights these results.

- High school students are more likely than middle school students to have ever tried smokeless tobacco products (18.3 percent vs. 7.1 percent) and to be current users (6.7 percent vs. 2.7 percent) of such products.
- Among middle school students, young men are significantly more likely than young women to report using smokeless tobacco. Approximately 11 percent of males have tried smokeless tobacco as compared to 3.3 percent of females. In addition, the prevalence of current use is 4.2 percent among males and 1.3 percent among females.
- Although the magnitudes are somewhat greater, a similar pattern of gender differences is seen at the high school level. Among high school students, males are both more likely than females to have tried smokeless tobacco (28.5 percent vs. 7.7 percent) and to be current users (11.7 percent vs. 1.6 percent).
- At both the high school and middle school level, Whites are the most likely to have tried smokeless tobacco products. In fact, among high school students the rate of smokeless tobacco use for Whites is three times the rate for African-Americans and Hispanics (23.3 percent vs. 7.7 percent and 8.6 percent, respectively). The same pattern is seen in rates of current use among high school students (8.7 percent, 2.8 percent, and 2.3 percent for Whites, African-Americans, and Hispanics, respectively) but not in the middle school sample.

Figure 2: Prevalence of Current Smokeless Tobacco Use



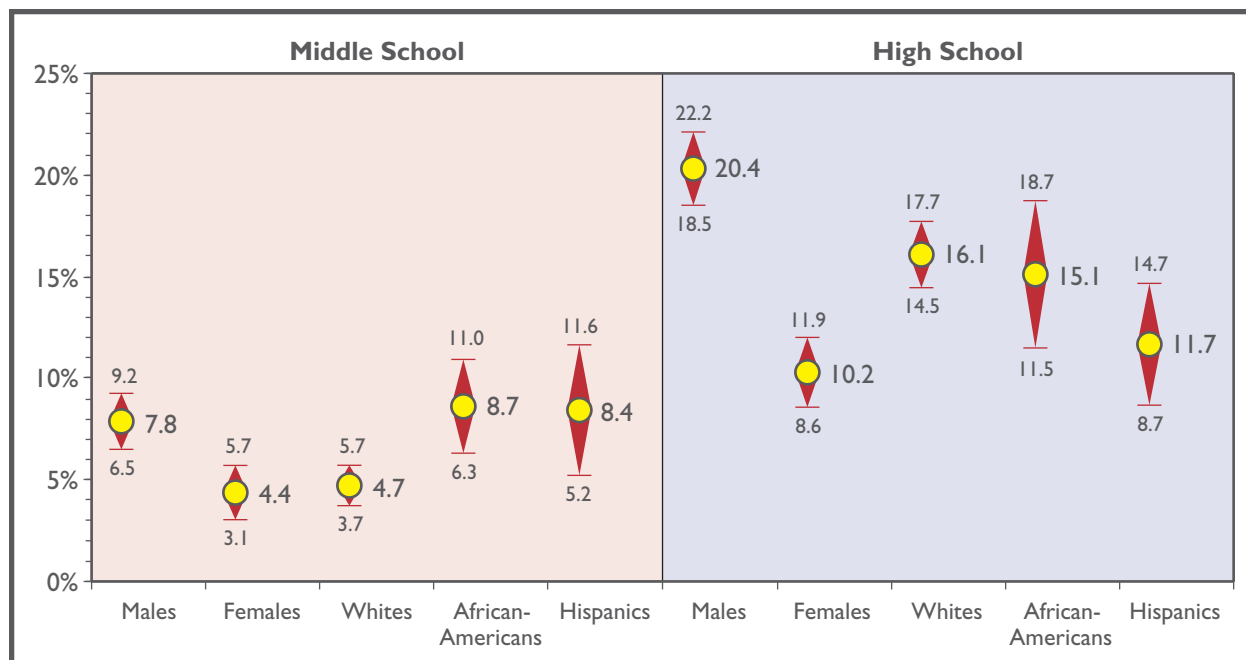
Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Prevalence of Cigar Use

The recent upsurge in the popularity of cigars has made them one of the most commonly used tobacco products among youth, second only to cigarettes. The NYTS data allow us to examine the scope of this phenomenon in great detail. Looking at Figure 3, we find that there are interesting differences in the patterns of cigar use across demographic categories. In the results that follow, cigars, cigarillos, and little cigars are included in the measures of cigar use.

- Experimentation with cigars is quite prevalent among both middle and high school students. The percent of youth who report having tried cigars is 15.5 and 41.7 among middle school and high school students, respectively. Current use, however, is approximately 60 percent lower in both groups (6.1 percent for middle school and 15.4 percent for high school).
- Males in both age groups are significantly more likely than females to have tried cigars (20.1 percent vs. 10.9 percent in middle school and 51.1 percent vs. 32.0 percent in high school) and to be current users (7.8 percent vs. 4.4 percent in middle school and 20.4 percent vs. 10.2 percent in high school). In fact, the rates of use among males are nearly twice the rates for females in both categories.
- Among middle school students, African-Americans and Hispanics are more likely than Whites to report having tried cigars although the differences are not statistically significant. A similar pattern of differences is seen in the rates of current use, but among current users Whites (4.7 percent) are found to be significantly less likely to use cigars than African-Americans (8.7 percent). There is no significant difference in current use of cigars between Whites and Hispanics, although the difference in the point estimates is fairly large (4.7 percent and 8.4 percent, respectively).
- In contrast, among high school students, Whites are the most likely to report having ever tried cigars (45.1 percent for Whites, 35.9 percent for African-Americans, and 33.7 percent for Hispanics). The difference in rates between Whites and African-Americans, however, is not statistically significant. When considering current cigar use, the pattern remains similar although the difference in cigar use between Whites and Hispanics (16.1 percent and 11.7 percent, respectively) is not significant at conventional levels.

Figure 3: Prevalence of Current Cigar Use



Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Prevalence of Bidi Use

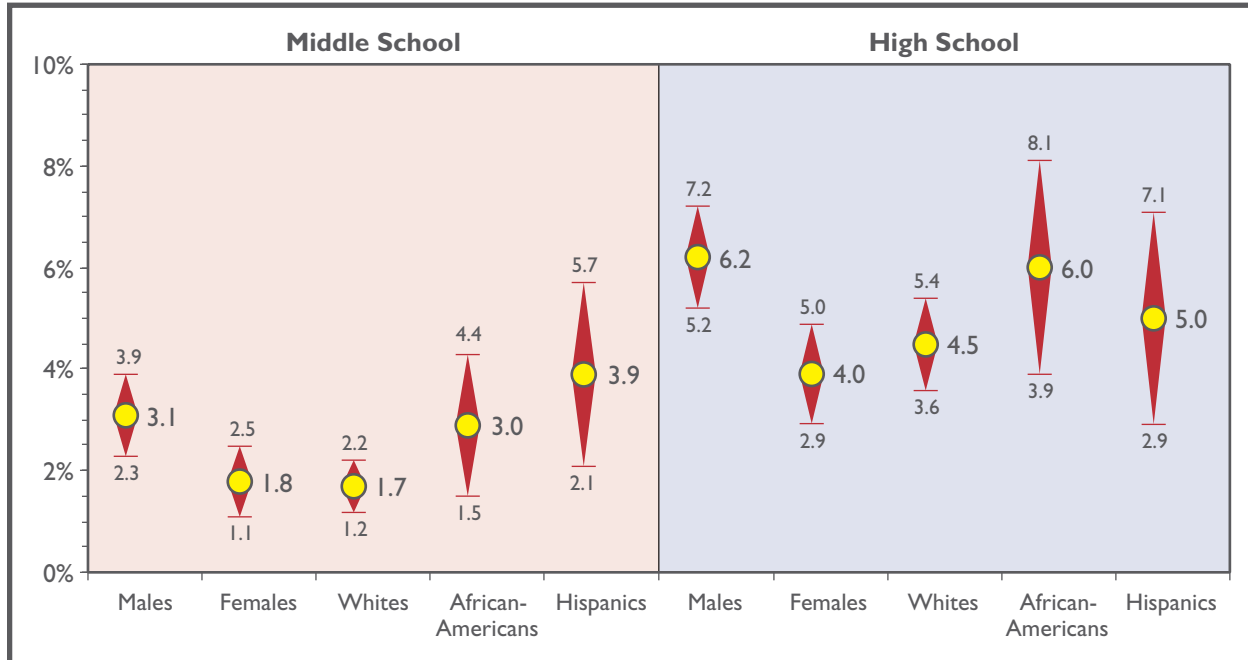
While bidis have been on the market in the United States for years, their popularity among youth is a relatively recent phenomenon. A number of factors may help explain the trend in bidi use. Perhaps the most important factor is that bidis are less expensive than regular cigarettes. A pack of 20 bidis can be bought for as little as \$1.25. Youth perceptions of bidis are also important. The fact that bidis come in flavors such as strawberry, mango, and root beer may make them seem exotic and fun. In addition, youth do not have as much information about the risks associated with smoking bidis as they do about regular cigarettes. A recent study of youth in Massachusetts found that 13 percent of students surveyed felt that bidis are safer than cigarettes (CDC, 1999). Responses from the NYTS, as seen in Figure 4, reveal the following about use:

- Middle school students are much less likely than high school students to have ever tried bidis (5.4 percent vs. 14.2 percent) or to be current users (2.5 percent vs. 5.1 percent).
- Young men in both age groups are more likely than young women to report use of bidis. Among high school students, 16.6 percent of males and 11.6 percent of females report having

tried bidis. The rates of current use are significantly lower (6.2 percent for males and 4.0 percent for females). A similar pattern across genders is seen in the middle school sample.

- Among middle school students, African-Americans are more likely than Whites to have ever tried bidis (7.3 percent vs. 3.8 percent). Hispanics have the highest rate (8.5 percent); however, the 95 percent confidence interval is so large that no statistical differences can be identified between Hispanics and either Whites or African-Americans. When considering current use, we do observe that Hispanics are significantly more likely than Whites to report smoking at least one bidi cigarette in the last 30 days. No statistical differences across racial/ethnic lines are found in the high school sample.

Figure 4: Prevalence of Current Bidi Use

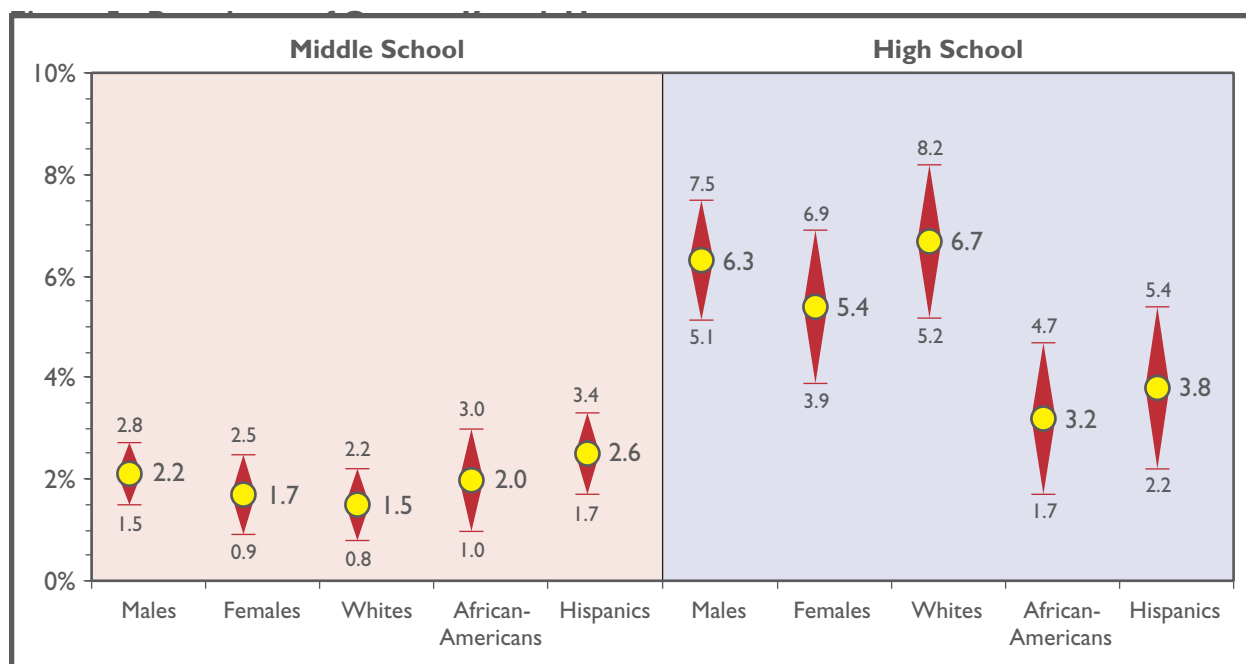


Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Prevalence of Kretek Use

Kreteks, often referred to as clove cigarettes, are a combination of tobacco and clove spices rolled into a cigarette. The overall rate of kretek use among youth is relatively low. In the NYTS, approximately 4 percent of students report current use. The low prevalence of clove smoking relative to regular cigarettes can be attributed to two main factors. First, they are not as readily available as regular cigarettes because most of the major chains of convenience stores do not carry them. Second, kreteks are typically more expensive than regular cigarettes. The patterns of kretek use across demographic lines are summarized in Figure 5.

- The rate of current use of kreteks is significantly higher among high school students than among middle school students (5.8 percent vs. 1.9 percent).
- Interestingly, there is virtually no difference in the use of kreteks between males and females. For all other tobacco products discussed, males have a higher rate of use than females.
- The only differences across racial and ethnic lines are seen in the high school sample. Whites are more likely than either African-Americans or Hispanics to report current use of kreteks (6.7 percent vs. 3.2 percent and 3.8 percent, respectively).



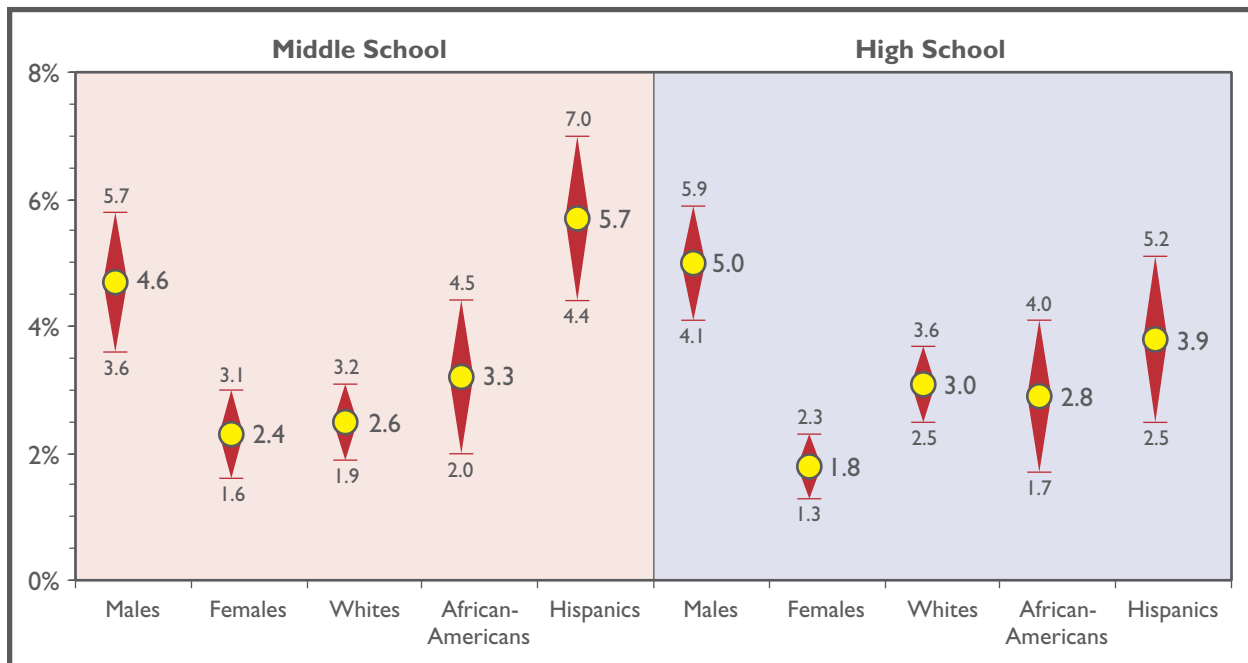
Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Prevalence of Pipe Use

Among all of the tobacco products discussed in this report, pipe tobacco has the lowest rate of use among youth at 3.7 percent. Unlike the other tobacco products previously discussed, there is little difference across age groups in the use of pipes (3.5 percent among middle school students vs. 3.4 percent among high school students). While there is little difference across age groups, we do find some small differences in pipe use across gender and racial/ethnic lines.

- As shown in Figure 6, females in both age groups are much less likely than males to report being a current pipe smoker.
- In the middle school sample, Hispanics are more likely than Whites or African-Americans to be current pipe smokers (5.7 percent vs. 2.6 percent and 3.3 percent, respectively). These differences are echoed in the high school sample but are not statistically significant.

Figure 6: Prevalence of Current Pipe Use



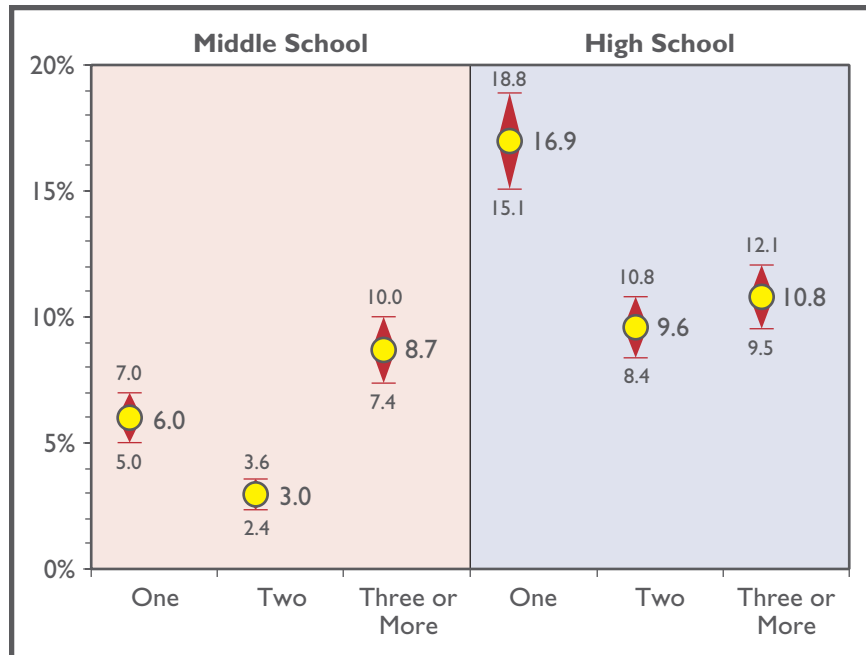
Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Use of Multiple Tobacco Products

While knowing the prevalence of the use of other tobacco products is important, it does not provide a full picture of the patterns of tobacco use among youth. To better understand the scope of the problem, we need to know more about how many products youth typically use and which products tend to be used together. The data from the NYTS are well suited to answer these questions. Figure 7 illustrates a number of key points (for detailed results with confidence intervals, see Table A-3).

- The vast majority of middle school and high school students do not use any tobacco products at all including cigarettes (82.3 percent and 62.7 percent, respectively).
- Middle school students are most likely to report use of a single tobacco product (6.0 percent report one, 3.0 percent report two, and 2.1 percent report three or more). High school students are also more likely to report use of just one product (16.9 percent) than use of two or three products (9.6 percent and 6.2 percent, respectively).
- In the high school sample, females are less likely than males to use any tobacco products (30.1 percent vs. 35.3 percent). In addition, females are less likely than males to use multiple tobacco products, with 8.5 percent of males and 3.7 percent of females reporting current use of three or more products. A similar, although less pronounced, pattern of utilization between males and females is observed in the middle school sample.
- The pattern of utilization across racial and ethnic groups is much different among middle school and high school students. Among middle school students, Whites are less likely than African-Americans and Hispanics to report current use of any tobacco products (10.5 percent vs. 11.8 percent and 13.7, respectively). Interestingly, in the middle school sample, there are no significant differences in the proportions of each racial group reporting use of one, two, or three or more products. Among high school students, Whites are the most likely to report use of any tobacco products (38 percent vs. 22.2 percent and 23.7 for African-Americans and Hispanics, respectively). In addition, a higher proportion of Whites report use of multiple tobacco products. Slightly over 7 percent of Whites report current use of three or more products compared with 3.4 percent of African-Americans and 3.8 percent of Hispanics.

Figure 7: Number of Tobacco Products Currently Used



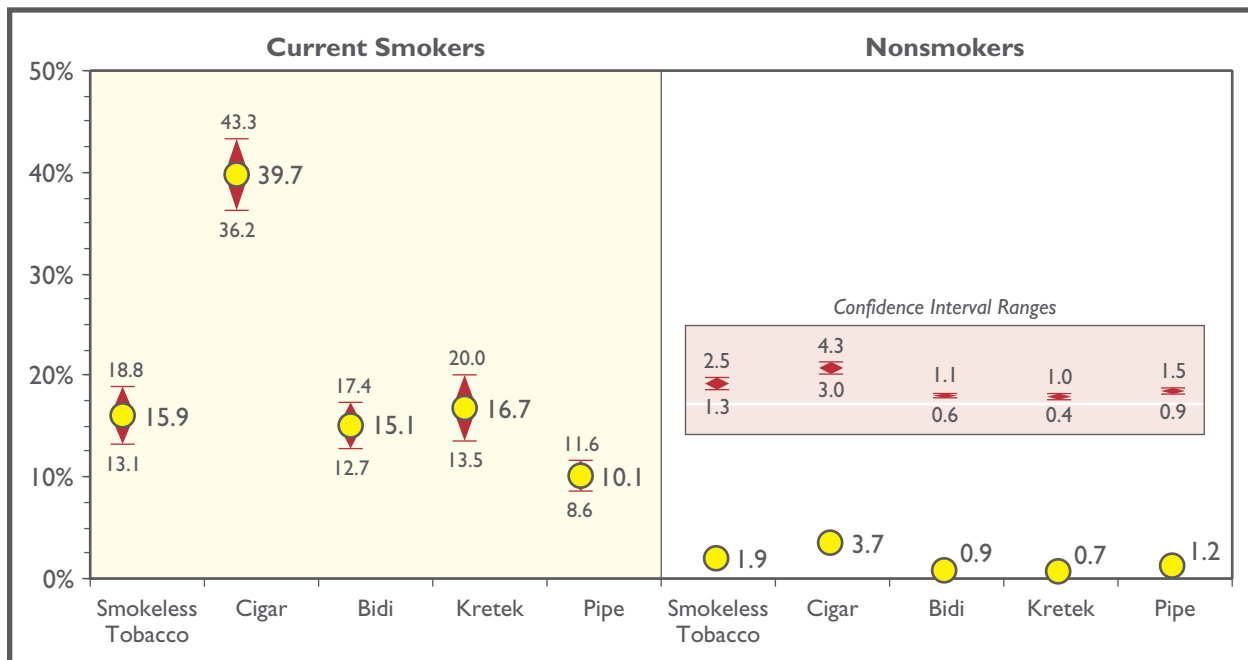
Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

Cigarettes are the most commonly used tobacco product among youth. Approximately 70 percent of those who report using only one tobacco product are current cigarette smokers. Further, 87 percent of those who report current use of two products and 96 percent of those who report using three or more tobacco products report cigarettes as one of the products. As such, it is interesting to examine the relationship between cigarette use and the use of other tobacco products. Data from the NYTS, presented in Figure 8, show that youth who smoke cigarettes are significantly more likely than non-smoking youth to use other tobacco products (for more detailed results with confidence intervals, see Table A-4).

- Current cigarette smokers are far more likely than non-smokers to use smokeless tobacco products. Only 1.9 percent of non-smokers report that they currently use smokeless tobacco products, while 16.0 percent of current smokers report current use of these products.
- A similar pattern is seen for cigar use, although the numbers are more striking. Among current smokers, 39.7 percent are current cigar smokers. In comparison, only 3.7 percent of non-smokers report current cigar use.

- In the case of bidis, 0.9 percent of non-smokers and 15.1 percent of current smokers have smoked bidis in the last 30 days.⁴
- The current use of kreteks, or clove cigarettes, is much higher among current smokers than among non-smokers (16.7 percent vs. 1.0 percent).
- Approximately 10 percent of current smokers report also smoking tobacco in a pipe. Among non-smokers, only 1.2 percent report being current pipe smokers.

Figure 8: Prevalence of the Use of Other Tobacco Products, by Smoking Status



Note: Upper and lower ranges represent 95 percent confidence intervals that account for the survey design weighting.

⁴In the case of bidis and kreteks the numbers are somewhat difficult to interpret. It is possible that the information used to create the indicator variable for current cigarette smoking status includes positive responses for youth who use bidis or kreteks. The question in the survey refers only to cigarette use. If the youth consider bidis or kreteks cigarettes and answer the question accordingly, then they are included as current cigarette smokers.

Summary

Looking across the various tobacco products, a clear pattern of use emerges across various demographic groups. With the exception of kreteks, young men are consistently more likely to report use of other tobacco products than young women. This is in contrast to what has been observed with cigarettes, where young women are at least as likely to report use as young men. In addition, across most of the tobacco products the prevalence of current use increases with age, with high school students generally reporting higher prevalence rates than middle school students. The one exception to this pattern is the current use of pipes, where middle school and high school students report the same prevalence rates for current use. As is found in the case of cigarettes, African-American and Hispanic middle school students are more likely than Whites to report current use of a number of other tobacco products, most notably cigars and pipes. These differences disappear in the high school sample, however, suggesting that cultural, locational, or socioeconomic differences may influence the timing at which youth choose to become regular users of particular tobacco products.

A strong relationship between cigarette use and the use of other tobacco products is highlighted in the NYTS. Current smokers are consistently found to have higher rates of use of other tobacco products than non-smokers. There are a number of potential explanations for this interesting result. In the case of chewing tobacco, cigarette smokers may find it an unobtrusive way to get nicotine when smoking is not an option. It is also possible that the characteristics that lead youth to smoke cigarettes are the same as those that lead youth to use other tobacco products. Further research would be necessary to fully understand the relationship between cigarette and other tobacco product use.

It seems clear, given the relatively high prevalence of the use of other tobacco products among youth and the strong relationship between cigarette use and the use of other tobacco products found in the NYTS, that policy makers need to devote more attention to regulatory and other measures that could be introduced to reduce the use of these products. New products continue to be developed and because they are not “cigarettes” they can and are marketed to and bought by youth. As such, future legislation focused on regulating the availability of tobacco to minors needs to consider all the forms in which tobacco is

sold so that there is not differential treatment in access and regulation across various tobacco products.

In addition, more resources need to be invested in educating youth about the health risks associated with the use of other tobacco products. With the main thrust of public information campaigns on the dangers of cigarette use, youth may mistakenly believe that the other tobacco products are a safe alternative to cigarettes.

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Appendix A: Use of Other Tobacco Products — Detailed Tables

**Table A-1: Percentage of Youth That Report Ever Trying Each Tobacco Product
[95% Confidence Interval]**

	Middle School			
	Cigarettes	Smokeless Tobacco	Cigars	Bidis
Overall	29.3% [26.0–32.6]	7.1% [5.7–8.4]	15.4% [13.5–17.3]	5.4% [4.3–6.4]
Males	30.9% [27.9–34.0]	11.0% [8.8–13.1]	20.1% [17.8–22.3]	6.7% [5.4–8.0]
Females	27.6% [23.8–31.5]	3.3% [2.5–4.1]	10.9% [8.8–12.9]	4.1% [2.9–5.2]
Whites	26.7% [22.6–30.8]	8.1% [6.1–10.0]	13.6% [12.0–15.2]	3.8% [2.9–4.8]
African-Americans	34.5% [31.5–37.6]	4.5% [3.2–5.8]	18.6% [14.9–22.2]	7.3% [5.7–9.0]
Hispanics	32.9% [25.5–40.3]	6.0% [4.5–7.5]	19.7% [14.0–25.4]	8.5% [4.1–13.0]
	High School			
	Cigarettes	Smokeless Tobacco	Cigars	Bidis
Overall	63.5% [60.6–66.5]	18.3% [15.5–21.0]	41.7% [39.0–44.4]	14.2% [11.7–16.6]
Males	64.1% [61.1–67.0]	28.5% [24.3–32.8]	51.1% [48.0–54.3]	16.6% [14.1–19.1]
Females	63.1% [59.5–66.7]	7.7% [6.2–9.2]	32.0% [29.2–34.9]	11.6% [8.8–14.5]
Whites	64.8% [61.5–68.2]	23.3% [19.9–26.7]	45.1% [42.3–48.0]	13.0% [10.1–15.8]
African-Americans	60.9% [56.4–65.4]	7.7% [5.0–10.5]	35.9% [29.0–42.7]	17.5% [12.9–22.1]
Hispanics	64.1% [60.0–68.1]	8.6% [6.8–10.4]	33.7% [29.1–38.3]	12.9% [10.0–15.7]

Table A-2: Percentage of Youth That Report Current Use of Each Tobacco Product [95% Confidence Interval]

	Middle School					
	Cigarettes	Smokeless Tobacco	Cigars	Bidis	Kreteks	Pipe
Overall	9.2% [7.6–10.9]	2.7% [2.0–3.5]	6.1% [4.9–7.3]	2.5% [1.9–3.0]	1.9% [1.5–2.4]	3.5% [2.9–4.1]
Males	9.6% [7.8–11.4]	4.2% [2.9–5.5]	7.8% [6.5–9.2]	3.1% [2.3–3.9]	2.2% [1.5–2.8]	4.6% [3.6–5.7]
Females	8.9% [7.1–10.6]	1.3% [0.8–1.8]	4.4% [3.1–5.7]	1.8% [1.1–2.5]	1.7% [0.9–2.5]	2.4% [1.6–3.1]
Whites	8.7% [6.7–10.7]	2.9% [1.8–4.0]	4.7% [3.7–5.7]	1.7% [1.2–2.2]	1.5% [0.8–2.2]	2.6% [1.9–3.2]
African-Americans	9.2% [7.3–11.2]	1.9% [1.0–2.8]	8.7% [6.3–11.0]	3.0% [1.5–4.4]	2.0% [1.0–3.0]	3.3% [2.0–4.5]
Hispanics	11.7% [7.3–16.0]	2.7% [1.7–3.7]	8.4% [5.2–11.6]	3.9% [2.1–5.7]	2.6% [1.7–3.4]	5.7% [4.4–7.0]
	High School					
	Cigarettes	Smokeless Tobacco	Cigars	Bidis	Kreteks	Pipe
Overall	28.5% [25.8–31.2]	6.7% [5.1–8.3]	15.5% [13.9–16.8]	5.1% [4.2–6.0]	5.8% [4.6–7.1]	3.4% [2.8–4.0]
Males	28.7% [25.8–31.6]	11.7% [8.8–14.6]	20.4% [18.5–22.2]	6.2% [5.2–7.2]	6.3% [5.1–7.5]	5.0% [4.1–5.9]
Females	28.3% [25.0–31.6]	1.6% [1.0–2.2]	10.2% [8.6–11.9]	4.0% [2.9–5.0]	5.4% [3.4–6.9]	1.8% [1.3–2.3]
Whites	33.2% [30.0–36.4]	8.7% [6.6–10.7]	16.2% [14.5–17.7]	4.5% [3.6–5.4]	6.7% [5.2–8.2]	3.0% [2.5–3.6]
African-Americans	16.6% [13.0–20.3]	2.8% [1.4–4.1]	15.2% [11.5–18.7]	6.0% [3.9–8.1]	3.2% [1.7–4.7]	2.8% [1.7–4.0]
Hispanics	22.4% [17.4–27.3]	2.3% [1.3–3.3]	11.7% [8.7–14.7]	5.0% [2.9–7.1]	3.8% [2.2–5.4]	3.9% [2.5–5.2]

**Table A-3: Current Use of Multiple Tobacco Products
[95% Confidence Interval]**



	Middle School			
	No Tobacco Products	One Tobacco Product	Two Tobacco Products	Three or More Tobacco Products
Overall	82.3% [79.8–84.7]	6.0% [5.0–7.0]	3.0% [2.4–3.6]	2.1% [1.5–2.7]
Males	80.5% [77.8–83.3]	5.4% [4.4–6.5]	3.8% [3.0–4.5]	2.7% [1.9–3.5]
Females	84.0% [81.3–86.7]	6.6% [5.3–7.8]	2.3% [1.6–3.0]	1.5% [0.9–2.2]
Whites	84.7% [82.0–87.3]	5.6% [4.4–6.8]	3.0% [2.2–3.8]	1.9% [1.3–2.6]
African-Americans	78.7% [76.2–81.2]	6.6% [5.1–8.2]	3.7% [2.7–4.7]	1.5% [0.8–2.3]
Hispanics	77.9% [71.2–84.6]	6.9% [4.0–9.8]	3.0% [2.1–3.9]	3.8% [1.8–5.9]
	High School			
	No Tobacco Products	One Tobacco Product	Two Tobacco Products	Three or More Tobacco Products
Overall	62.7% [59.9–65.4]	16.9% [15.1–18.8]	9.6% [8.4–10.8]	6.2% [5.3–7.0]
Males	59.2% [56.0–62.3]	15.4% [13.6–17.1]	11.4% [9.6–13.1]	8.5% [7.3–9.7]
Females	66.3% [62.9–69.7]	18.6% [16.0–21.1]	7.8% [6.4–9.2]	3.7% [2.9–4.6]
Whites	58.8% [55.4–62.3]	20.1% [17.8–22.3]	10.7% [9.2–12.2]	7.2% [6.1–8.3]
African-Americans	70.2% [65.4–75.0]	11.0% [9.2–12.9]	7.8% [5.8–9.8]	3.4% [2.1–4.7]
Hispanics	69.5% [64.9–74.1]	13.7% [10.5–16.9]	6.2% [4.3–8.1]	3.8% [1.9–5.6]

Note: The numbers in brackets are the 95% confidence intervals. Rows do not sum to 100% because of missing values.

Table A-4: Relationship Between Current Cigarette Smoking Behavior and Use of Other Tobacco Products [95% Confidence Interval]

	Overall	
	Non-Smokers ^a That Are Current Users	Current Cigarette Smokers That Are Current Users
Smokeless Tobacco	1.9% [1.3–2.5]	15.9% [13.1–18.8]
Cigar	3.7% [3.0–4.3]	39.7% [36.2–43.3]
Bidi	0.9% [0.6–1.1]	10.1% [12.7–17.4]
Kretek	0.7% [0.4–1.0]	16.7% [13.5–20.0]
Pipe	1.2% [0.9–1.5]	10.1% [8.6–11.6]
	Middle School	
	Non-Smokers That Are Current Users	Current Cigarette Smokers That Are Current Users
Smokeless Tobacco	1.0% [0.6–1.4]	17.9% [13.6–22.2]
Cigar	2.0% [1.5–2.5]	42.2% [37.4–47.0]
Bidi	0.4% [0.2–0.6]	19.3% [14.8–23.8]
Kretek	0.3% [0.2–0.5]	14.3% [10.4–18.2]
Pipe	1.3% [0.9–1.7]	18.1% [15.2–21.0]
	High School	
	Non-Smokers That Are Current Users	Current Cigarette Smokers That Are Current Users
Smokeless Tobacco	3.0% [2.0–4.0]	15.5% [12.2–18.8]
Cigar	5.5% [4.6–6.4]	39.0% [35.0–42.9]
Bidi	1.3% [0.8–1.7]	14.0% [11.5–16.5]
Kretek	1.0% [0.5–1.6]	17.4% [13.8–21.0]
Pipe	1.0% [0.7–1.4]	7.8% [6.2–9.4]

^aNon-smokers are youth who do not currently smoke cigarettes.



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