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American Legacy Foundation. Legacy First Look Report 2. What Youth Think About Smoking: Results from the 1999 National Youth Tobacco Survey

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# ***Legacy First Look Report*** **2**

*What Youth Think About Smoking:  
Results from the 1999 National  
Youth Tobacco Survey*

*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:

Alma Adams, PhD  
*State Representative, North Carolina*

Lonnie Bristow, MD, MACP  
*Former President, American Medical Association*

Thomas R. Carper  
*Governor, Delaware*

Christine O. Gregoire  
*Attorney General, Washington*

Elmer E. Huerta, MD, MPH  
*Founder and Director of the Cancer Risk Assessment and Screening Center at the Washington Hospital Center in the District of Columbia*

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*Student, University of Miami*

Steven A. Schroeder  
*President and Chief Executive Officer, the Robert Wood Johnson Foundation*

John "Joe" Henry Schwarz, MD  
*State Senator, Michigan*

Carla J. Stovall  
*Attorney General, Kansas*

Kenneth Warner, PhD  
*Richard D. Remington Collegiate Professor of Public Health, University of Michigan*

## 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.

<b><i>Innovative</i></b>	<b><i>and Evidence-Based Programs</i></b>
<b><i>Marketing and Education</i></b>	The most visible of Legacy's efforts to date is the \$185 million <b>truth<sup>sm</sup></b> campaign—a national youth movement against tobacco use. The <b>truth<sup>sm</sup></b> campaign is aimed at reducing tobacco use among youth ages 12 to 17 who are most open to using tobacco. Modeled after successful teen brands, this multicultural counter-marketing program incorporates advertising, Internet, grassroots, and public relations components and gives teens a voice in the effort.
<b><i>Applied Research and Evaluation</i></b>	The National Youth Tobacco Survey, a Legacy-sponsored research effort, provided the first national assessment of smoking rates for both high school and middle school students earlier this year. The survey is one part of an integrated research program that will commission studies, fund research, and publish reports (such as this one) on tobacco issues. In addition, a comprehensive evaluation effort will ensure the effectiveness of the programs Legacy supports.
<b><i>Grants</i></b>	Legacy's grants program is designed to build on existing tobacco control efforts, leverage resources, and spark new tobacco control initiatives. Awards totaling \$35 million have been announced to states and organizations to develop grassroots youth empowerment programs to reduce tobacco use. Legacy is also supporting demonstration projects and encouraging model programs through competitive RFPs.
<b><i>Priority Populations</i></b>	A commitment to integrating minority input across all of its initiatives guides Legacy's programming. To investigate issues specific to underserved populations, Legacy is hosting a series of forums to ensure outreach and communication with and input from minority and cultural experts. These forums are just the beginning of Legacy's outreach work.
<b><i>Technical Assistance and Training</i></b>	Building upon best practices in tobacco prevention and cessation will ensure the success of tobacco control efforts. Legacy, as part of its commitment to providing assistance in areas such as youth empowerment, counter-marketing, policy formation, and cessation, will co-sponsor a National Training and Technical Assistance Consortium.
<b><i>Contact</i></b>	<b><i>Information</i></b> <b>Phone:</b> 202-454-5555 <b>Email:</b> <a href="mailto:info@americanlegacy.org">info@americanlegacy.org</a> Cheryl G. Heaton, DrPH · <i>President &amp; CEO</i> William Furmanski · <i>Director of Communications</i> M. Lyndon Haviland, DrPH · <i>Executive Vice President for Program Development &amp; Research</i> Beverly Kastens · <i>Director of Marketing</i> Helen Lettlow, MPH · <i>Director of Program Development for Priority Populations</i> Adin Miller, MPA · <i>Director of Grants</i> Sharon Natanblut · <i>Vice President for Communications</i> Anthony O'Toole, CPA · <i>Executive Vice President &amp; Chief Financial Officer</i> Anna Spriggs · <i>Director of Administration</i> Amber Hardy Thornton, MPH, CHES · <i>Vice President for Training &amp; Technical Assistance</i> Mitch Zeller, JD · <i>Executive Vice President for Marketing &amp; Communications</i>

## Legacy **First Look Report 2**

### *What Youth Think About Smoking: Results from the 1999 National Youth Tobacco Survey*

*This report was written by* W. Douglas Evans, PhD‡, James Hersey, PhD\*, Alec Ulasevich, PhD‡, and Anne Powers, PhD‡, from the Coordinating Center for Evaluation and Applied Research.

*The authors would like to acknowledge the contributions of* Matthew C. Farrelly, PhD\*, Barbara Lynch, PhD‡, and Peter Messeri, PhD†, who reviewed drafts of this report.

*The authors are also grateful to* 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

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## Introduction

Youth attitudes, beliefs, perceptions, and intentions about smoking are among the most important influences on their smoking behavior. Combined with social and environmental influences, how and what youth think about smoking can predict smoking prevalence. This report explores attitudinal and normative factors that may influence adolescent intent to use or not use tobacco, as well as how these factors vary by grade, gender, and race/ethnicity. It describes developmental increases in the social appeal and acceptance of tobacco during the course of adolescence that deserve attention in efforts at tobacco prevention and control.

This report is based on data from the 1999 National Youth Tobacco Survey (NYTS). The 1999 NYTS is a nationally representative survey of middle and high school students, administered during the fall of 1999 to 15,058 students in grades 6 through 12 at 131 schools across the country. The survey included 72 questions about tobacco use; knowledge, attitudes, and beliefs about smoking; purchase of tobacco; environmental exposure to tobacco; and familiarity with tobacco advertising.

Although the NYTS provides a wealth of information about adolescent tobacco use, this report focuses on belief and normative variables that previous research has shown often combine to predict behavior. We have selected these variables because they are central to many theories of human behavior, such as the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975), the Health Belief Model (HBM), and Social Learning Theory (Bandura, 1977), among others. Such theories have been successfully used to predict many types of behavior, including adolescent smoking behavior. For example, according to TRA, positive attitudes, when combined with supportive social norms, predict the intention to engage in a behavior.

Social norms are a person's perception of the accepted or appropriate behavior in a given situation. These perceptions are based on the attitudes and behaviors of those around the person, such as family or friends. NYTS questions about social norms include the popularity of people who smoke (i.e., beliefs about the social appeal of smoking) and the frequency with which students are in the company of smokers (i.e., social influences on smoking). If social influences such as friends are supportive of cigarette smoking, or these people are smokers themselves, then the adolescent may perceive supportive social norms

that, when combined with positive beliefs about the social desirability of smoking, will increase the chances that he or she will smoke.

For purposes of this report, attitudes are defined as a person's expectations about the likelihood that specific consequences of a behavior will occur, whereas values reflect the extent to which a person desires those consequences. Although the NYTS was not designed with any specific theory of human behavior in mind, it included several questions about students' beliefs regarding health consequences of smoking. These included questions about the addictive properties of tobacco and the personal risks (or sense of personal vulnerability) related to smoking and secondhand smoke. Each of these items represents a possible consequence of smoking. The more positive (or less negative) a person's response is to these items, the more positive his or her attitude is toward smoking.

The NYTS items noted above are presented in this report. Beliefs about the social appeal of smoking are presented first, followed by beliefs about social influences and the health risks of smoking, and finally the intent to smoke. Most questions analyzed here had four possible answers (Definitely Yes, Probably Yes, Probably Not, and Definitely Not). Several questions pertaining to social influences asked respondents to report frequency, with zero being one of the response categories.

To simplify presentation of results, we discuss only significant changes in responses that indicate strong antismoking attitudes or beliefs (e.g., frequency of "Definitely Not" responses to a question about whether smokers look cool) or absence of social influence (e.g., not having friends who smoke). Theoretically, one may argue that any responses other than those expressing attitudes of certainty might suggest susceptibility to smoking. Nonetheless, this paper focuses on the strongest antismoking category as a useful way to describe attitudes that should be monitored over time. Further, we present breakdowns of the variables by grade, gender, and ethnicity. Previous research has also shown that attitudes and social norms — and their influence on behavior — vary by grade, ethnicity, and gender. Social norms, in particular, exert strong influence on male adolescents (Murray et al., 1992). Norms supporting tobacco use among this group would be of particular concern because they could lead to initiation or continuance of smoking.

For the purposes of this report, we aggregated students into three grade groups: middle school (6th, 7th, and 8th grades) and two high school groups (9th and 10th grades and 11th and 12th grades). These grade groups reflect important milestones in students' social

development. Given that these groups also reflect the most common grade-class divisions, there is also reason to expect differences between them. Students attending one campus in middle school typically move to another in high school and may experience different social or environmental influences that affect their propensity to smoke. The middle school and high school distinction also corresponds to a sharp increase in smoking prevalence revealed by analyses of NYTS data presented in the *Legacy First Look Report 1* (Farrelly et al., 2000).

The analyses of differences by race/ethnicity compared data for White, African-American, and Hispanic students. Racial/ethnic designations were based on students' responses to the question "Which of these groups best describes you? (Choose only one answer.)" The sample sizes for Asian, Native Hawaiian or other Pacific Islander, American Indian, and Alaska Native were too small to make meaningful comparisons and were therefore grouped into an "other" category. The NYTS administered in the year 2000 will address this issue by oversampling students of Asian heritage. Data on the "other" group are not presented in the following narrative because they did not represent any one race or ethnicity. Summaries of race/ethnicity data, including the "other" group, are presented in Appendix A.

Tables of sample characteristics and data on all questions, segmented by grade category, gender, and race/ethnicity are presented in Appendix A. The graphs and tables presented in the report, as well as the tables in Appendix A, include 95 percent confidence intervals.



## **Beliefs About the Social Appeal of Smoking**

Two survey questions explored respondents' beliefs about the social appeal of smoking as indicated by their perception of the social status of smokers:

- Do you think young people who smoke have more friends?
- Do you think smoking makes young people look cool or fit in?

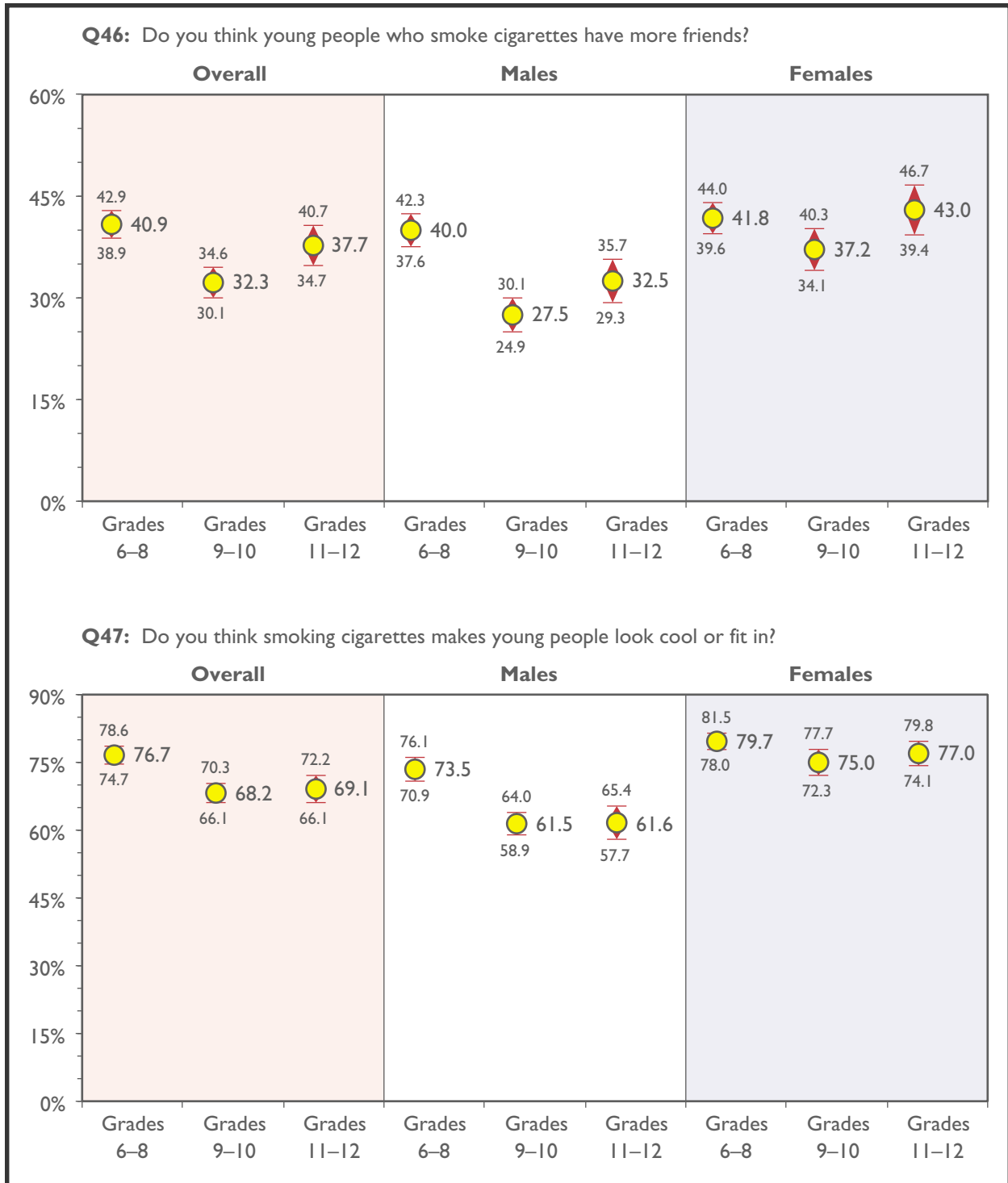
The "Definitely Not" response is considered to express a clear antismoking attitude.

Segmented by grade level, the data show a change in attitude from the middle school sample (6th to 8th grades) to the sample of students in early high school years (9th and 10th grades) (Figure 1). For both questions, 9th and 10th graders were less likely than middle school students to answer "Definitely Not" (32.3 percent vs. 40.9 percent for smokers having more friends, and 68.2 percent vs. 76.7 percent for smokers looking cool, respectively). The percentage of "Definitely Not" responses for the "smokers have more friends" question was higher for 11th and 12th graders (37.7 percent) than for younger high school students (32.3 percent).

As illustrated by Figure 1, answers to these questions differed not only by grade level but also by gender. Regarding the belief that smokers have more friends, female and male middle school students reported similar percentages of "Definitely Not" responses (41.8 percent and 40.0 percent, respectively). However, among male 9th and 10th graders, the percentage of "Definitely Not" responses was much lower (27.5 percent) than in previous grades, whereas the percentage for female 9th and 10th graders (37.2 percent) was more similar to that among middle school females, and much higher than for their male peers. In 11th and 12th grade, the difference between male and female students in the percentage of "Definitely Not" responses was still around 10 percent (32.5 percent vs. 43.0 percent).

On the question of whether smokers looked cool, female students expressed similar percentages of "Definitely Not" responses in each of the grade groups (79.7 percent for 6th to 8th grade, 75.0 percent for 9th and 10th grades, and 77.0 percent for 11th and 12th grades). The percentages for male students (73.5 percent, 61.5 percent, and 61.6 percent, respectively) showed a sharp drop among the 9th and 10th graders in comparison with middle school students. The rate of male students who responded "Definitely Not" was significantly lower than the rate of female students in both the 9th and 10th grade and the 11th and 12th grade samples.

**Figure I: Social Perceptions of Smoking by Grade and Gender (Percent responding “Definitely Not”)**



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

Among all racial/ethnic groups the appeal of smoking increased in 9th and 10th grade, but by 11th and 12th grade the picture was more complex (Table 1). On the question of whether young smokers had more friends, the proportion indicating “Definitely Not” increased (i.e., the social appeal decreased) among African-American and White students, but there was no such change among Hispanic students. As a result, by 11th and 12th grade, Hispanic students were less likely to respond “Definitely Not” than White students (31.2 percent vs. 40.0 percent). The difference was most evident between Hispanic and White male students (23.0 percent vs. 34.9 percent).

**Table 1: Social Perceptions of Smoking by Race/Ethnicity (Percent responding “Definitely Not”) [95% Confidence Interval]**

	Q46: Do smokers have more friends?	Q47: Does smoking make them look cool?
<b>Grades 6–8</b>		
<i>Overall</i>	41.0 [39.0–42.9]	76.7 [74.7–78.6]
<i>Whites</i>	42.9 [40.5–45.3]	77.7 [75.0–80.5]
<i>African-Americans</i>	38.1 [35.3–41.0]	74.8 [72.2–77.4]
<i>Hispanics</i>	37.5 [32.1–43.0]	76.5 [73.0–80.0]
<b>Grades 9–10</b>		
<i>Overall</i>	32.1 [29.9–34.4]	68.0 [65.8–70.2]
<i>Whites</i>	33.6 [30.6–36.7]	67.4 [64.6–70.1]
<i>African-Americans</i>	28.2 [24.4–32.0]	71.1 [66.7–75.5]
<i>Hispanics</i>	32.9 [27.9–37.9]	68.7 [64.7–72.7]
<b>Grades 11–12</b>		
<i>Overall</i>	37.7 [34.6–40.7]	69.2 [66.1–72.3]
<i>Whites</i>	40.0 [36.6–43.5]	66.7 [63.6–69.8]
<i>African-Americans</i>	35.0 [30.9–39.0]	79.0 [75.2–82.8]
<i>Hispanics</i>	31.2 [26.3–36.1]	71.5 [67.5–75.5]

On the question of whether young smokers looked cool, all racial/ethnic groups showed an increase in the appeal of tobacco use by 9th and 10th grade. Among African-American students, however, there was a significant decrease in appeal by 11th and 12th grade, and African-American students were significantly more likely to reply “Definitely Not” than their White peers (79.0 percent vs. 66.7 percent). This difference was most evident between female African-American and White students (85.3 percent vs. 73.8 percent).

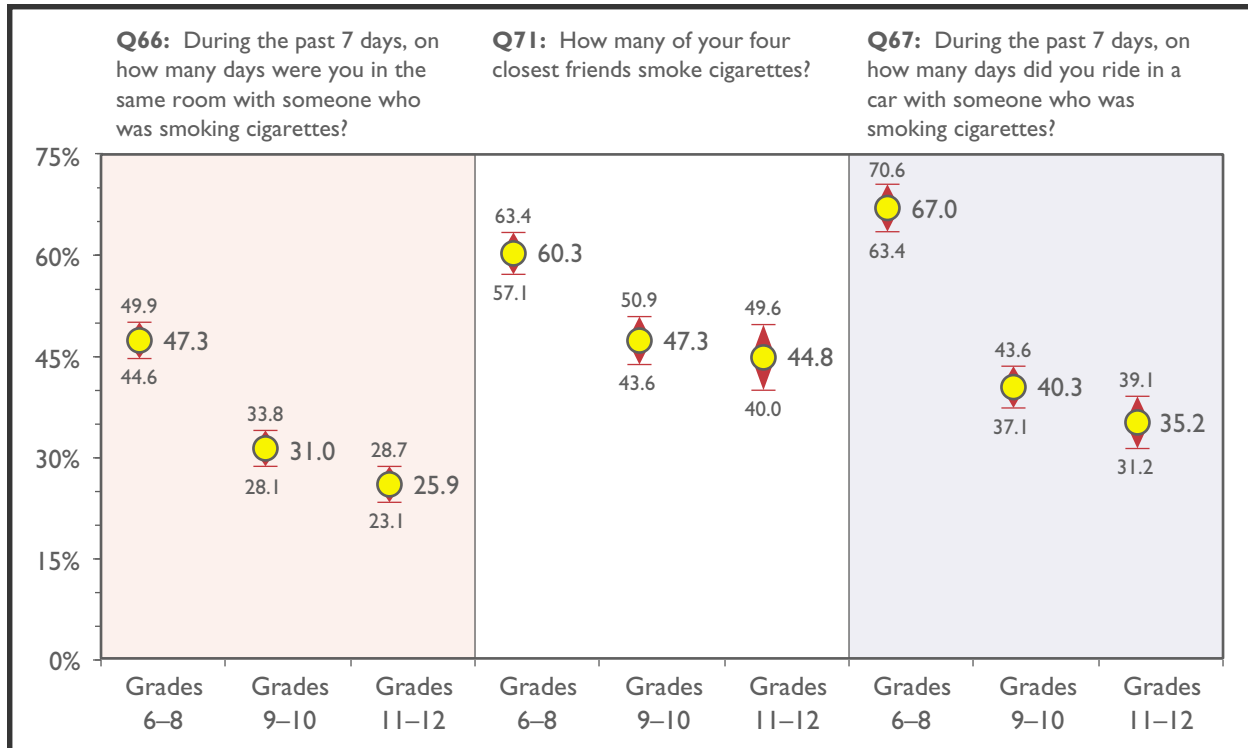
## Social Influences

Four survey questions reveal the prevalence of smoking in the respondents' environment and hence the possibility of subtle social influences on their smoking behavior:

- During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?
- During the past 7 days, on how many days did you ride in a car with someone who was smoking cigarettes?
- How many of your four closest friends smoke cigarettes?
- Besides yourself, does anyone who lives in your home smoke cigarettes now?

The reported frequency of zero on the first three questions (Figure 2) suggests no normative social influence on smoking behavior, as does the frequency of the “no” response to the question of whether someone else in the household smokes (not shown in Figure 2).

**Figure 2: Social Influences by Grade (Percent responding “None” or “Zero”)**



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

The percentage of students reporting that no one smoked in their household did not differ by grade category. However, exposure to smoking among peers and friends increased dramatically by 9th grade. As shown in Figure 2, in comparison with middle school students, high school students were significantly less likely to report not being in a car with someone who smoked, not being in the same room with someone who did not smoke, and not having a friend who did not smoke.

Overall, male and female students did not differ in their responses to these questions. The only gender-by-grade difference was on the question regarding the number of days out of 7 a student was in the same room with someone smoking. Female students in 9th and 10th grade reported lower percentages of not being in the same room with someone smoking than male students (26.9 percent for females vs. 35.0 percent for males) (see Tables A-2 through A-4 in Appendix A).

Comparisons by racial/ethnic groups are presented in Table 2. Overall, Hispanic students were less likely to live in households where someone else smoked. On other questions there were some differences among different racial and ethnic groups by grade category. African-American 11th and 12th graders were more likely to report not having any friends who smoked than White 11th and 12th grade students (49.2 percent vs. 31.1 percent). White students in 9th and 10th grade were also less likely to report not spending any days in the same room with someone smoking (26.1 percent) than the other groups (38.1 percent for African-American students, 39.4 percent for Hispanic students). Similar results were obtained for 11th and 12th graders (21.5 percent for White students vs. 31.3 percent for African-American students and 37.0 percent for Hispanic students). On the question regarding the number of days they were in a car with someone smoking, the only significant differences were between White and Hispanic students in 9th and 10th grade (42.1 percent vs. 59.2 percent) and in 11th and 12th grade (41.4 percent vs. 54.6 percent).

**Table 2: Social Influences by Race/Ethnicity [95% Confidence Interval]**

	<b>Q69: Besides you, who smokes at your house? (Percent resp. "No One")</b>	<b>Q71: How many of your four closest friends smoke? (Percent resp. "None")</b>	<b>Q66: In the past week, were you in a room with someone smoking? (Percent resp. "No")</b>	<b>Q67: In the past week, were you in a car with someone smoking? (Percent resp. "No")</b>
<b>Grades 6–8</b>				
<b>Overall</b>	<b>59.4</b> [56.4–62.5]	<b>67.0</b> [63.4–70.7]	<b>47.2</b> [44.6–49.8]	<b>60.5</b> [57.3–63.6]
<b>Whites</b>	<b>59.8</b> [55.5–64.0]	<b>68.7</b> [63.9–73.4]	<b>43.9</b> [40.7–47.1]	<b>59.3</b> [55.1–63.4]
<b>African-Americans</b>	<b>56.1</b> [52.6–59.6]	<b>63.6</b> [58.9–68.4]	<b>48.4</b> [44.5–52.3]	<b>59.0</b> [55.2–62.7]
<b>Hispanics</b>	<b>60.6</b> [56.1–65.0]	<b>64.5</b> [57.5–71.4]	<b>56.2</b> [48.2–64.1]	<b>65.0</b> [57.3–72.8]
<b>Grades 9–10</b>				
<b>Overall</b>	<b>54.4</b> [51.1–57.7]	<b>40.4</b> [37.1–43.7]	<b>30.7</b> [27.8–33.6]	<b>47.1</b> [43.4–50.9]
<b>Whites</b>	<b>52.6</b> [48.4–56.7]	<b>38.1</b> [34.1–42.1]	<b>26.1</b> [22.8–29.4]	<b>42.1</b> [37.5–46.7]
<b>African-Americans</b>	<b>55.2</b> [50.2–60.2]	<b>46.4</b> [40.1–52.8]	<b>38.1</b> [30.7–45.4]	<b>54.4</b> [46.4–62.3]
<b>Hispanics</b>	<b>60.0</b> [55.4–64.6]	<b>39.8</b> [33.8–45.9]	<b>39.4</b> [35.3–43.4]	<b>59.2</b> [54.2–64.1]
<b>Grades 11–12</b>				
<b>Overall</b>	<b>57.8</b> [54.2–61.4]	<b>35.2</b> [31.2–39.1]	<b>25.9</b> [23.1–28.8]	<b>45.1</b> [40.2–49.9]
<b>Whites</b>	<b>59.0</b> [54.2–63.9]	<b>31.1</b> [26.9–35.2]	<b>21.5</b> [18.5–24.5]	<b>41.4</b> [36.0–46.7]
<b>African-Americans</b>	<b>52.2</b> [46.2–58.3]	<b>49.2</b> [42.1–56.3]	<b>31.3</b> [26.7–35.9]	<b>49.9</b> [41.3–58.5]
<b>Hispanics</b>	<b>59.8</b> [54.5–65.2]	<b>35.8</b> [28.6–43.0]	<b>37.0</b> [30.0–44.0]	<b>54.6</b> [47.0–62.3]

## Beliefs About Health Risks of Smoking

Four survey questions asked respondents about their beliefs regarding the health consequences and dangers of smoking:

- Do you think it is safe to smoke for only a year or two, as long as you quit after that?
- Do you think people risk harming themselves if they smoke one or more packs of cigarettes per day?
- Can people get addicted to cigarette smoking just like they can get addicted to cocaine or heroin?
- Do you think the smoke from other people's cigarettes is harmful to you?

A “Definitely Yes” response to a question about the dangers of smoking was considered to be indicative of a strong antismoking attitude, as was a “Definitely Not” response to the question minimizing the negative consequences of smoking (the belief that it is safe to smoke as long as you quit).

As shown in Table 3, the data revealed that all grade groups overwhelmingly believed that smoking is addictive and harmful and that secondhand smoke is harmful. However, older students were less likely to respond with “Definitely Not” to the question of whether it is safe to smoke as long as you quit. Whereas 73.0 percent of middle school students believed that it definitely is not safe to smoke as long as you quit, smaller percentages of 9th and 10th graders (64.2 percent) and 11th and 12th graders (59.9 percent) shared the same attitude.

Responses to the question of whether it is safe to smoke and then quit varied according to gender (Table 3). Overall, 71.3 percent of female students thought that it is definitely not safe to smoke for 1 or 2 years and quit versus 63.1 percent of male students. This difference was found between female and male students at all grade levels. On other questions, female students in 11th and 12th grade were more likely than their male counterparts to agree that (1) secondhand smoke is harmful (80.4 percent vs. 70.5 percent), (2) smoking is addictive like heroin and cocaine (81.0 percent vs. 71.0 percent), and (3) people harm themselves by smoking one or more packs a day (87.2 percent vs. 80.6 percent).

There were significant differences in health beliefs by race/ethnicity. As shown in Figure 3, in all three grade levels, White students were more likely to believe that smoking one or more packs a day was harmful than other groups. Conversely, African-American students were more likely

**Table 3: Beliefs about the Health Risks of Smoking by Grade and Gender [95% Confidence Interval]**

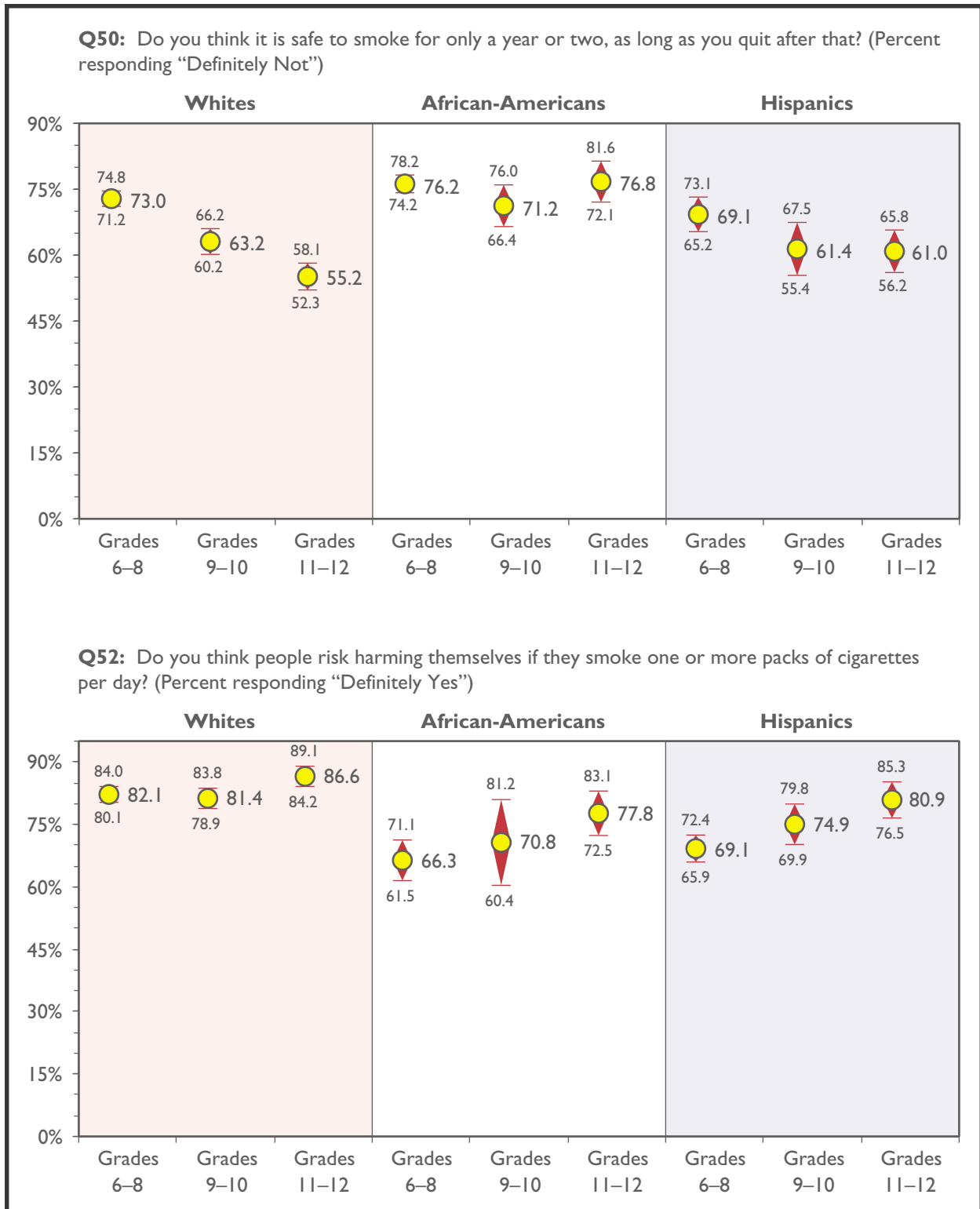
	<b>Q50: Is it safe to just smoke a year and then quit? (Percent resp. "Definitely Not")</b>	<b>Q52: Are one or two packs a day harmful? (Percent resp. "Definitely Yes")</b>	<b>Q45: Can you get addicted to tobacco? (Percent resp. "Definitely Yes")</b>	<b>Q68: Can others who smoke harm you? (Percent resp. "Definitely Yes")</b>
<b>Grade 6–8</b>				
<b>Overall</b>	<b>73.0</b> [71.6–74.3]	<b>76.3</b> [74.1–78.5]	<b>72.8</b> [70.7–75.0]	<b>69.2</b> [67.0–71.5]
<b>Male</b>	<b>70.0</b> [67.8–72.1]	<b>74.3</b> [71.5–77.0]	<b>71.7</b> [69.4–74.1]	<b>67.8</b> [65.1–70.5]
<b>Female</b>	<b>75.9</b> [74.4–77.5]	<b>78.3</b> [76.0–80.5]	<b>73.9</b> [71.5–76.2]	<b>70.6</b> [68.3–72.9]
<b>Grade 9–10</b>				
<b>Overall</b>	<b>64.2</b> [62.1–66.4]	<b>78.2</b> [74.8–81.7]	<b>73.8</b> [71.6–76.1]	<b>71.4</b> [68.8–74.1]
<b>Male</b>	<b>59.3</b> [56.5–62.1]	<b>75.2</b> [71.9–78.5]	<b>71.3</b> [69.2–73.4]	<b>69.1</b> [66.1–72.1]
<b>Female</b>	<b>69.2</b> [66.9–71.5]	<b>81.4</b> [77.3–85.4]	<b>76.4</b> [73.0–79.7]	<b>73.8</b> [70.5–77.1]
<b>Grade 11–12</b>				
<b>Overall</b>	<b>59.9</b> [56.9–62.8]	<b>83.9</b> [81.6–86.1]	<b>76.0</b> [74.2–77.7]	<b>75.4</b> [72.7–78.1]
<b>Male</b>	<b>55.0</b> [51.8–58.2]	<b>80.6</b> [77.8–83.5]	<b>71.0</b> [68.2–73.9]	<b>70.5</b> [67.0–74.1]
<b>Female</b>	<b>64.9</b> [61.5–68.3]	<b>87.2</b> [84.6–89.9]	<b>81.0</b> [78.7–83.4]	<b>80.4</b> [77.5–83.3]

than White students to definitely disagree that it is safe to smoke for one or two years and quit. The magnitude of this difference was most evident by 11th and 12th grade.

On the question of whether cigarettes are addictive like heroin or cocaine, Hispanic and African-American middle school students were less likely to reply “Definitely Yes” than White students (62.7 percent, 67.3 percent, 77.2 percent, respectively). In 9th and 10th grade, only Hispanic students significantly differed from White students (64.0 percent vs. 77.2 percent). Among 11th and 12th graders, there were no differences among race/ethnicity groups. Hispanic middle school students were also less likely than White students to consider secondhand smoke to be definitely harmful (63.1 percent vs. 72.5 percent). In general, the gender of students did not influence these differences in conjunction with race (see Tables A-2 through A-4 in Appendix A).



**Figure 3: Beliefs about Health Risks of Smoking by Grade and Race/Ethnicity**



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

## Behavioral Intent

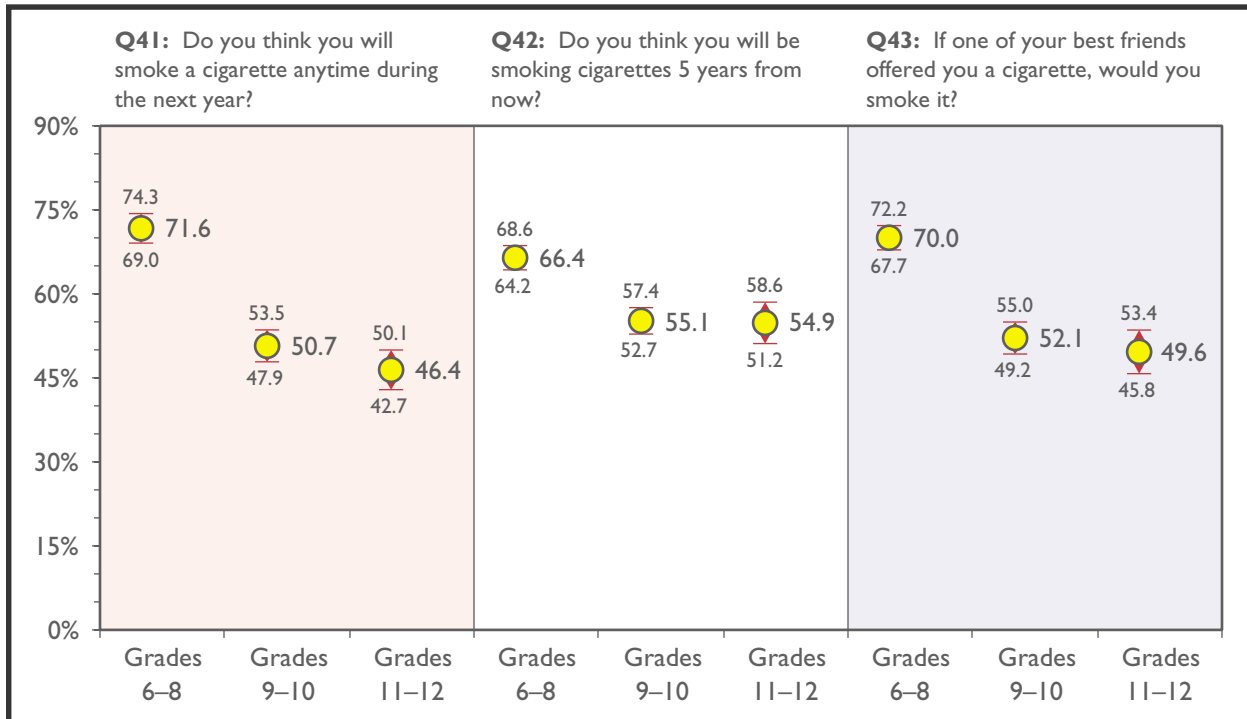
Three survey questions asked students whether they would smoke a cigarette at some point in the future:

- Do you think you will smoke a cigarette anytime during the next year?
- Do you think you will be smoking cigarettes 5 years from now?
- If one of your best friends offered you a cigarette, would you smoke it?

A “Definitely Not” response suggests that the student is nonsusceptible to smoking.

The findings indicate a significant increase in intention to smoke by 9th grade. The pattern of “Definitely Not” responses across grade categories was remarkably similar for all three questions. As illustrated in Figure 4, middle school students were more likely to state “Definitely Not” to all of these questions than either 9th and 10th graders or 11th and 12th graders. The percentage of “Definitely Not” responses did not significantly differ between 9th and 10th and 11th and 12th graders. The pattern of responses did not differ by gender.

**Figure 4: Intent To Smoke by Grade (Percent responding “Definitely Not”)**



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

The analyses of race/ethnicity (Table 4) revealed variations in expressed certainty that students would not smoke during the next year. Among 9th and 10th graders, 58.8 percent of African-Americans expressed certainty that they would not smoke, whereas only 47.0 percent of White students did so. Among 11th and 12th graders, African-American students were more certain that they would not smoke than White or Hispanic students (65.8 percent, 40.0 percent, and 47.8 percent, respectively).

The pattern of “Definitely Not” responses on the question of whether students would smoke in 5 years was similar. Among 9th and 10th graders, the percentage of African-American students replying “Definitely Not” (61.6 percent) was statistically different from the percentage of White (52.8 percent) and Hispanic (52.3 percent) students. Among 11th and 12th graders, the percentage of “Definitely Not” responses for African-American students (73.2 percent) differed widely from that of the other groups (50.4 percent for Whites, 51.1 percent for Hispanics).

African-American 11th and 12th graders were also more certain than other groups that they would not smoke a cigarette if offered by a best friend (70.0 percent, compared with 51.3 percent for Hispanics and 43.2 percent for Whites). In the 9th and 10th grades, the percentage of African-American students was lower (61.9 percent) but significantly different from the percentage of White students (48.0 percent). These racial/ethnic differences did not vary by any consistent pattern in relation to respondents’ gender.

**Table 4: Intent To Smoke by Race/Ethnicity (Percent responding “Definitely Not”)  
[95% Confidence Interval]**

	<b>Q41: Do you think you will smoke this year?</b>	<b>Q42: Will you smoke 5 years from now?</b>	<b>Q43: If a friend offered, would you smoke?</b>
<b>Grade 6–8</b>			
<b>Overall</b>	<b>71.8</b> [69.1–74.4]	<b>66.5</b> [64.4–68.7]	<b>70.0</b> [67.8–72.2]
<b>Whites</b>	<b>72.6</b> [69.3–75.9]	<b>66.7</b> [63.7–69.7]	<b>70.1</b> [67.2–73.0]
<b>African-Americans</b>	<b>72.1</b> [69.0–75.1]	<b>68.4</b> [65.3–71.6]	<b>70.0</b> [67.2–72.8]
<b>Hispanics</b>	<b>67.5</b> [60.7–74.3]	<b>63.0</b> [58.4–67.7]	<b>69.3</b> [63.8–74.9]
<b>Grade 9–10</b>			
<b>Overall</b>	<b>50.7</b> [47.8–53.5]	<b>55.0</b> [52.6–57.5]	<b>52.0</b> [49.1–54.9]
<b>Whites</b>	<b>47.0</b> [43.7–50.4]	<b>52.8</b> [49.4–56.2]	<b>48.0</b> [44.6–51.4]
<b>African-Americans</b>	<b>58.8</b> [53.0–64.5]	<b>61.6</b> [57.1–66.1]	<b>61.9</b> [55.2–68.6]
<b>Hispanics</b>	<b>52.7</b> [46.7–58.6]	<b>52.3</b> [47.0–57.6]	<b>53.9</b> [47.3–60.5]
<b>Grade 11–12</b>			
<b>Overall</b>	<b>46.2</b> [42.6–49.8]	<b>54.7</b> [50.9–58.4]	<b>49.4</b> [45.6–53.1]
<b>Whites</b>	<b>40.0</b> [36.8–43.3]	<b>50.4</b> [46.5–54.3]	<b>43.2</b> [39.5–46.8]
<b>African-Americans</b>	<b>65.8</b> [58.4–73.1]	<b>73.2</b> [69.2–77.1]	<b>70.0</b> [64.8–75.2]
<b>Hispanics</b>	<b>47.8</b> [42.5–53.0]	<b>51.1</b> [44.9–57.3]	<b>51.3</b> [45.9–56.7]

## Summary

Organized by constructs from contemporary theories of human behavior, data from the survey reveal interesting differences in student attitudes and beliefs by grade, gender, and race/ethnicity. The social appeal of smoking increased between middle school and high school but leveled off or declined as students matured into 11th and 12th grades. Male students found smoking more appealing than female students, especially as they reached high school, and this difference persisted through 12th grade. Differences among racial and ethnic groups about the social appeal of smoking were mixed. Hispanic students at all grade levels generally found smoking more appealing than White students, and African-American students in 11th and 12th grades found smoking more appealing than White students.

As students mature and progress through high school, there are generally more social influences for them to smoke. There was a consistent increase in social influences starting in middle school and continuing through high school. Female and male students appeared to experience comparable social influences to smoke. Racial and ethnic differences were present but varied by question asked. White students were more likely than African-American students to be exposed to smokers. Hispanic students were more likely to ride in a car with smokers but were otherwise less exposed than White students.

Students at all grade levels generally considered smoking to be risky, but the perception that smoking and then quitting is unsafe declined from middle school to high school and continued to decline in 11th and 12th grades. More female than male students believed smoking is risky, and the difference increased with age. There were variable racial and ethnic differences. More White than African-American students thought smoking one or more packs of cigarettes per day is dangerous, but more African-American than White students disagreed that it is safe to smoke for a year or two and then quit. White students were more likely than African-American or Hispanic students to believe that cigarettes are addictive.

Intent to smoke increases as students grow older. From middle school to high school, and again as students reach 11th and 12th grades, the percentage of respondents indicating they definitely would not smoke in the future dropped. There were no significant differences between female and male students in behavioral intent. African-Americans consistently showed lower intent to smoke than other groups.

Overall, grade level was the most consistent factor in attitudes and beliefs toward smoking. Consistent with other recent findings, as students mature they generally display attitudes and beliefs that make them more susceptible to smoking. Gender differences suggest that male students are somewhat more susceptible than females, but the pattern of results was not consistent. The same can be said for race/ethnicity, which is perhaps the most complex factor in determining attitudes and beliefs, and to date the least well understood. Future *Legacy First Look Reports* will seek to explain these differences and the way these demographic characteristics mediate the relationships between beliefs and smoking.

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# **Appendix A:** *Attitudes and Beliefs about Smoking, and Other Influence Statistics — Detailed Tables*

## **Key for Numbered Questions on Tables A-2 through A-4:**

### **Social Appeal:**

- Q46. Do you think young people who smoke cigarettes have more friends?
- Q47. Do you think smoking cigarettes makes young people look cool or fit in?

### **Normative Influence:**

- Q69. Besides yourself, does anyone who lives in your home smoke cigarettes now?
- Q71. How many of your four closest friends smoke cigarettes?
- Q66. During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?
- Q67. During the past 7 days, on how many days did you ride in a car with someone who was smoking cigarettes?

### **Attitudes and Beliefs about Smoking:**

- Q50. Do you think it is safe to smoke for only a year or two, as long as you quit after that?
- Q52. Do you think people risk harming themselves if they smoke one or more packs of cigarettes per day?
- Q45. Can people get addicted to cigarette smoking just like they can get addicted to cocaine or heroin?
- Q68. Do you think the smoke from other people's cigarettes is harmful to you?

### **Behavioral Intent:**

- Q41. Do you think you will smoke a cigarette anytime during the next year?
- Q42. Do you think you will be smoking cigarettes 5 years from now?
- Q43. If one of your best friends offered you a cigarette, would you smoke it?

**Note:** In all Appendix A tables, the race/ethnicity category "Other" includes Asian, Native Hawaiian and Other Pacific Islanders, American Indian, and Alaska Native.



**Table A-1: Distribution of Respondents by Race/Ethnicity and Gender in the Fall 1999 NYTS**

Race/Ethnicity	Gender		
	Overall	Female	Male
<b>Total</b>			
Sample Size	14,609	7,317	7,292
Percent		49.9	50.1
Standard Error		0.6	0.6
95% CI		48.7–51.1	48.9–51.3
<b>White</b>			
Sample Size	8,468	4,156	4,312
Percent		48.9	51.1
Standard Error		0.8	0.8
95% CI		47.3–50.5	49.5–52.7
<b>Black or African American</b>			
Sample Size	2,408	1,254	1,154
Percent		52.1	47.9
Standard Error		0.9	0.9
95% CI		50.4–53.9	46.1–49.6
<b>Hispanic or Latino</b>			
Sample Size	2,693	1,420	1,273
Percent		52.8	47.2
Standard Error		1.5	1.5
95% CI		49.8–55.9	44.1–50.2
<b>Other</b>			
Sample Size	1,040	487	553
Percent		46.2	53.8
Standard Error		2.2	2.2
95% CI		41.8–50.6	49.4–58.2

**Table A-2: Percentages and 95% Confidence Intervals for Responses Indicating Strong Anti-Tobacco Attitudes and Beliefs in Grades 6–8**

	Social Appeal		Normative Influence				
	Q46	Q47	Q69	Q71	Q66	Q67	
<b>Overall</b>							
<b>Total</b> n=8,012	<b>41.0</b> [39.0–42.9]	<b>76.7</b> [74.7–78.6]	<b>59.4</b> [56.4–62.5]	<b>67.0</b> [63.7–70.7]	<b>47.2</b> [44.6–49.8]	<b>60.5</b> [57.3–63.6]	
<b>White</b> n=4,171	<b>42.9</b> [40.5–45.3]	<b>77.7</b> [75.0–80.5]	<b>59.8</b> [55.5–64.0]	<b>68.7</b> [63.9–73.4]	<b>43.9</b> [40.7–47.1]	<b>59.3</b> [55.1–63.4]	
<b>Af-Am</b> n=1,403	<b>38.1</b> [35.3–41.0]	<b>74.8</b> [72.2–77.4]	<b>56.1</b> [52.6–59.6]	<b>63.6</b> [58.9–68.4]	<b>48.4</b> [44.5–52.3]	<b>59.0</b> [55.2–62.7]	
<b>Hisp</b> n=1,685	<b>37.5</b> [32.1–43.0]	<b>76.5</b> [73.0–80.0]	<b>60.6</b> [56.1–65.0]	<b>64.5</b> [57.5–71.4]	<b>56.2</b> [48.2–64.1]	<b>65.0</b> [57.3–72.8]	
<b>Other</b> n=607	<b>38.3</b> [34.4–42.3]	<b>71.9</b> [67.9–75.9]	<b>65.3</b> [60.7–69.8]	<b>68.1</b> [62.7–73.5]	<b>57.0</b> [50.2–63.9]	<b>68.3</b> [63.0–73.6]	
<b>Male</b>							
<b>White</b> n=2,067	<b>40.9</b> [37.7–44.0]	<b>74.0</b> [70.1–78.0]	<b>60.1</b> [56.1–64.1]	<b>67.3</b> [62.0–72.5]	<b>45.3</b> [42.1–48.5]	<b>61.2</b> [57.6–64.8]	
<b>Af-Am</b> n=683	<b>37.3</b> [34.2–40.5]	<b>70.8</b> [67.1–74.5]	<b>58.1</b> [53.9–62.3]	<b>66.1</b> [61.0–71.3]	<b>53.2</b> [48.6–57.8]	<b>62.6</b> [56.9–68.4]	
<b>Hisp</b> n=804	<b>39.0</b> [31.1–46.8]	<b>74.2</b> [70.2–78.3]	<b>63.5</b> [58.6–68.4]	<b>62.7</b> [55.5–69.9]	<b>56.6</b> [48.0–65.2]	<b>65.9</b> [58.0–73.8]	
<b>Other</b> n=300	<b>41.9</b> [34.8–48.9]	<b>71.9</b> [65.9–77.8]	<b>65.4</b> [58.8–72.0]	<b>72.4</b> [65.0–79.9]	<b>62.9</b> [56.7–69.2]	<b>72.0</b> [64.7–79.2]	
<b>Female</b>							
<b>White</b> n=2,087	<b>44.9</b> [42.3–47.6]	<b>81.5</b> [79.4–83.6]	<b>59.5</b> [54.5–64.6]	<b>70.2</b> [65.1–75.3]	<b>42.6</b> [38.3–46.8]	<b>57.35</b> [52.0–62.7]	
<b>Af-Am</b> n=710	<b>38.4</b> [34.3–42.5]	<b>78.7</b> [74.5–82.9]	<b>54.4</b> [49.5–59.2]	<b>61.6</b> [55.5–67.6]	<b>43.9</b> [38.8–48.9]	<b>55.6</b> [50.6–60.7]	
<b>Hisp</b> n=885	<b>36.4</b> [31.9–40.9]	<b>78.6</b> [74.8–82.4]	<b>57.9</b> [52.8–63.0]	<b>52.0</b> [47.6–56.4]	<b>56.0</b> [47.6–64.4]	<b>64.1</b> [55.4–72.9]	
<b>Other</b> n=305	<b>34.7</b> [29.8–39.7]	<b>71.7</b> [65.8–77.6]	<b>65.1</b> [58.7–71.5]	<b>63.8</b> [57.4–70.1]	<b>51.8</b> [41.6–62.0]	<b>64.6</b> [57.0–72.3]	
	Attitudes and Beliefs About Smoking				Behavioral Intent		
	Q50	Q52	Q45	Q68	Q41	Q42	Q43
<b>Overall</b>							
<b>Total</b> n=8,012	<b>72.9</b> [71.6–74.3]	<b>76.4</b> [74.2–78.6]	<b>72.8</b> [70.6–75.0]	<b>69.1</b> [66.9–71.4]	<b>71.8</b> [69.1–74.4]	<b>66.5</b> [64.4–68.7]	<b>70.0</b> [67.8–72.2]
<b>White</b> n=4,171	<b>73.0</b> [71.2–74.8]	<b>82.1</b> [80.2–83.9]	<b>77.2</b> [74.6–79.9]	<b>72.5</b> [69.7–75.2]	<b>72.6</b> [69.3–75.9]	<b>66.7</b> [63.7–69.7]	<b>70.1</b> [67.2–73.0]
<b>Af-Am</b> n=1,403	<b>76.2</b> [74.2–78.2]	<b>66.3</b> [61.5–71.1]	<b>67.3</b> [64.1–70.6]	<b>63.8</b> [60.0–67.6]	<b>72.1</b> [69.0–74.1]	<b>68.4</b> [65.3–71.6]	<b>70.0</b> [67.2–72.8]
<b>Hisp</b> n=1,685	<b>69.1</b> [65.2–73.1]	<b>69.1</b> [65.9–72.4]	<b>62.7</b> [59.9–65.6]	<b>63.1</b> [59.3–67.0]	<b>67.5</b> [60.7–74.3]	<b>63.0</b> [58.4–67.7]	<b>69.3</b> [63.8–74.9]
<b>Other</b> n=607	<b>69.2</b> [65.1–73.3]	<b>68.6</b> [62.6–74.7]	<b>69.1</b> [65.0–73.3]	<b>66.6</b> [61.7–71.5]	<b>71.8</b> [66.7–77.0]	<b>66.6</b> [61.5–71.8]	<b>70.9</b> [66.3–75.5]
<b>Male</b>							
<b>White</b> n=2,067	<b>68.9</b> [66.1–71.8]	<b>80.5</b> [77.8–83.2]	<b>76.1</b> [73.3–78.9]	<b>71.6</b> [68.3–75.0]	<b>70.9</b> [66.9–74.8]	<b>64.7</b> [60.5–68.9]	<b>68.7</b> [65.1–72.3]
<b>Af-Am</b> n=683	<b>74.4</b> [71.0–77.9]	<b>62.8</b> [56.6–69.1]	<b>63.4</b> [58.8–68.1]	<b>59.7</b> [54.9–64.6]	<b>73.2</b> [69.8–76.7]	<b>69.9</b> [67.0–72.8]	<b>72.1</b> [68.7–75.5]
<b>Hisp</b> n=804	<b>68.2</b> [63.6–72.8]	<b>66.7</b> [62.8–70.6]	<b>66.8</b> [61.6–72.1]	<b>62.1</b> [57.5–66.8]	<b>65.6</b> [58.1–73.1]	<b>60.5</b> [55.8–65.2]	<b>67.8</b> [63.0–72.7]
<b>Other</b> n=300	<b>67.5</b> [60.7–74.3]	<b>65.3</b> [57.6–73.0]	<b>65.7</b> [59.4–72.1]	<b>65.3</b> [57.2–73.5]	<b>72.0</b> [66.4–77.6]	<b>68.3</b> [62.0–74.7]	<b>71.8</b> [66.6–77.0]
<b>Female</b>							
<b>White</b> n=2,087	<b>77.1</b> [75.2–79.0]	<b>83.7</b> [81.8–85.6]	<b>78.5</b> [74.5–81.5]	<b>73.4</b> [70.5–76.4]	<b>74.4</b> [70.6–78.3]	<b>68.8</b> [65.4–72.2]	<b>71.4</b> [68.2–74.7]
<b>Af-Am</b> n=710	<b>77.8</b> [74.3–81.3]	<b>69.7</b> [65.2–74.2]	<b>71.3</b> [67.7–74.9]	<b>67.8</b> [63.2–72.3]	<b>70.7</b> [66.3–75.2]	<b>67.1</b> [62.6–71.7]	<b>68.0</b> [63.9–72.2]
<b>Hisp</b> n=885	<b>70.0</b> [66.0–74.0]	<b>71.6</b> [66.0–71.7]	<b>59.3</b> [56.3–62.4]	<b>64.2</b> [59.8–68.5]	<b>69.2</b> [62.6–75.9]	<b>65.4</b> [59.7–71.1]	<b>70.8</b> [64.0–77.6]
<b>Other</b> n=305	<b>70.4</b> [63.8–77.1]	<b>71.7</b> [64.9–78.8]	<b>72.3</b> [65.7–78.8]	<b>67.8</b> [61.7–73.9]	<b>71.5</b> [65.5–78.4]	<b>64.7</b> [58.3–71.1]	<b>69.8</b> [63.3–76.3]

**Table A-3: Percentages and 95% Confidence Intervals for Responses Indicating Strong Anti-Tobacco Attitudes and Beliefs in Grades 9–10**

	Social Appeal		Normative Influence				
	Q46	Q47	Q69	Q71	Q66	Q67	
<b>Overall</b>							
<b>Total</b> n=3,451	<b>32.1</b> [29.9–34.4]	<b>68.0</b> [65.8–70.2]	<b>54.4</b> [51.1–57.7]	<b>40.4</b> [37.1–43.7]	<b>30.7</b> [27.8–33.6]	<b>47.1</b> [43.4–50.9]	
<b>White</b> n=2,120	<b>33.6</b> [30.6–36.7]	<b>67.4</b> [64.6–70.1]	<b>52.6</b> [48.4–56.7]	<b>38.1</b> [34.1–42.1]	<b>26.1</b> [22.8–29.4]	<b>42.1</b> [37.5–46.7]	
<b>Af-Am</b> n=568	<b>28.2</b> [24.4–32.0]	<b>71.1</b> [66.7–75.5]	<b>55.2</b> [50.2–60.2]	<b>46.4</b> [40.1–52.8]	<b>38.1</b> [30.7–45.4]	<b>54.4</b> [46.4–62.3]	
<b>Hisp</b> n=482	<b>32.9</b> [27.9–37.9]	<b>68.7</b> [64.7–72.7]	<b>60.0</b> [55.4–64.6]	<b>39.8</b> [33.8–45.9]	<b>39.4</b> [35.3–43.4]	<b>59.2</b> [54.2–64.1]	
<b>Other</b> n=205	<b>26.9</b> [18.8–35.1]	<b>63.7</b> [56.2–71.2]	<b>61.1</b> [54.4–67.7]	<b>47.0</b> [36.7–57.2]	<b>39.0</b> [30.8–47.2]	<b>54.5</b> [42.8–66.2]	
<b>Male</b>							
<b>White</b> n=1,076	<b>27.8</b> [25.6–31.7]	<b>60.4</b> [57.0–63.9]	<b>54.1</b> [49.5–58.7]	<b>37.7</b> [33.0–42.5]	<b>29.5</b> [25.2–33.8]	<b>44.8</b> [40.5–49.1]	
<b>Af-Am</b> n=278	<b>23.0</b> [17.6–28.5]	<b>66.3</b> [61.6–71.1]	<b>60.5</b> [53.1–67.8]	<b>41.4</b> [32.5–50.4]	<b>45.9</b> [35.5–56.4]	<b>60.8</b> [49.6–72.1]	
<b>Hisp</b> n=230	<b>29.0</b> [23.9–34.2]	<b>60.3</b> [53.5–67.1]	<b>60.9</b> [54.2–67.7]	<b>43.6</b> [36.9–50.2]	<b>40.8</b> [33.9–47.7]	<b>57.0</b> [49.3–64.7]	
<b>Other</b> n=123	<b>19.3</b> [10.6–28.1]	<b>54.3</b> [44.2–64.4]	<b>59.5</b> [51.1–68.0]	<b>42.0</b> [31.2–52.9]	<b>38.8</b> [29.9–47.8]	<b>54.5</b> [43.2–65.8]	
<b>Female</b>							
<b>White</b> n=1,038	<b>38.7</b> [34.4–43.0]	<b>74.4</b> [70.7–78.1]	<b>51.0</b> [46.3–55.6]	<b>38.5</b> [33.6–43.3]	<b>22.6</b> [18.8–26.5]	<b>39.3</b> [33.8–44.9]	
<b>Af-Am</b> n=290	<b>32.9</b> [27.2–38.6]	<b>75.5</b> [69.7–81.3]	<b>50.3</b> [42.7–57.9]	<b>51.1</b> [44.9–57.3]	<b>30.7</b> [25.0–36.3]	<b>48.3</b> [40.6–55.9]	
<b>Hisp</b> n=250	<b>35.7</b> [27.6–43.7]	<b>75.6</b> [70.9–80.3]	<b>58.8</b> [52.5–65.2]	<b>36.3</b> [27.5–45.1]	<b>37.9</b> [30.4–45.5]	<b>60.7</b> [53.9–67.5]	
<b>Other</b> n=82	<b>38.2</b> [27.2–49.3]	<b>77.5</b> [67.9–87.2]	<b>63.3</b> [50.5–76.1]	<b>54.0</b> [35.6–72.4]	<b>39.3</b> [27.8–50.9]	<b>54.5</b> [39.2–69.8]	
	Attitudes and Beliefs About Smoking				Behavioral Intent		
	Q50	Q52	Q45	Q68	Q41	Q42	Q43
<b>Overall</b>							
<b>Total</b> n=3,451	<b>64.2</b> [62.0–66.4]	<b>78.2</b> [74.8–81.6]	<b>73.9</b> [71.6–76.2]	<b>71.3</b> [68.7–74.0]	<b>50.7</b> [47.8–53.5]	<b>55.0</b> [52.6–57.5]	<b>52.0</b> [49.1–54.9]
<b>White</b> n=2,120	<b>63.2</b> [60.2–66.2]	<b>81.4</b> [78.9–83.8]	<b>77.2</b> [75.4–79.1]	<b>73.9</b> [71.6–76.2]	<b>47.0</b> [43.7–50.4]	<b>52.8</b> [49.4–56.2]	<b>48.0</b> [44.6–51.4]
<b>Af-Am</b> n=568	<b>71.2</b> [66.4–76.0]	<b>70.8</b> [60.4–81.2]	<b>71.0</b> [63.1–79.9]	<b>66.2</b> [58.7–73.7]	<b>58.8</b> [53.0–64.5]	<b>61.6</b> [57.1–66.1]	<b>61.9</b> [55.2–68.6]
<b>Hisp</b> n=482	<b>61.4</b> [55.4–67.5]	<b>74.9</b> [69.9–79.8]	<b>64.0</b> [59.0–69.0]	<b>65.7</b> [59.8–71.6]	<b>52.7</b> [46.7–58.6]	<b>52.3</b> [47.0–57.6]	<b>53.9</b> [47.3–60.5]
<b>Other</b> n=205	<b>56.7</b> [49.5–63.9]	<b>75.1</b> [67.2–82.9]	<b>67.3</b> [56.3–78.4]	<b>71.7</b> [61.4–81.9]	<b>59.8</b> [52.7–66.8]	<b>63.2</b> [53.9–72.4]	<b>58.7</b> [51.4–66.0]
<b>Male</b>							
<b>White</b> n=1,076	<b>57.7</b> [54.0–61.3]	<b>78.5</b> [76.0–81.1]	<b>74.9</b> [72.5–77.3]	<b>72.2</b> [69.1–75.2]	<b>48.1</b> [43.9–52.3]	<b>54.0</b> [49.7–58.4]	<b>47.7</b> [43.2–52.2]
<b>Af-Am</b> n=278	<b>68.2</b> [60.2–76.3]	<b>70.0</b> [60.6–79.4]	<b>68.3</b> [62.3–74.3]	<b>63.1</b> [56.2–70.0]	<b>55.3</b> [48.9–61.6]	<b>56.0</b> [49.7–62.3]	<b>57.4</b> [49.2–65.6]
<b>Hisp</b> n=230	<b>57.4</b> [49.4–65.4]	<b>68.4</b> [60.3–76.6]	<b>59.9</b> [53.6–66.1]	<b>59.9</b> [51.0–68.9]	<b>52.1</b> [43.9–60.2]	<b>49.1</b> [42.1–56.1]	<b>52.9</b> [45.0–60.9]
<b>Other</b> n=123	<b>52.1</b> [42.7–61.4]	<b>67.2</b> [56.4–77.9]	<b>64.5</b> [52.2–76.8]	<b>66.4</b> [54.8–78.1]	<b>56.6</b> [46.8–66.3]	<b>60.6</b> [50.2–71.1]	<b>54.4</b> [43.8–65.0]
<b>Female</b>							
<b>White</b> n=1,038	<b>68.8</b> [65.5–72.0]	<b>84.3</b> [81.2–87.4]	<b>79.6</b> [76.8–82.4]	<b>75.6</b> [72.5–78.7]	<b>45.9</b> [41.4–50.5]	<b>51.5</b> [47.1–55.9]	<b>48.4</b> [43.6–53.2]
<b>Af-Am</b> n=290	<b>73.9</b> [69.7–78.1]	<b>71.5</b> [59.7–83.4]	<b>73.6</b> [62.1–85.1]	<b>69.1</b> [58.6–79.6]	<b>62.0</b> [55.4–68.7]	<b>66.8</b> [61.3–72.4]	<b>66.1</b> [59.8–72.4]
<b>Hisp</b> n=250	<b>64.5</b> [58.2–70.8]	<b>80.8</b> [74.7–86.9]	<b>67.8</b> [60.9–74.7]	<b>70.5</b> [64.0–77.1]	<b>52.9</b> [44.7–61.1]	<b>54.9</b> [47.0–62.8]	<b>54.3</b> [45.8–62.8]
<b>Other</b> n=82	<b>63.6</b> [53.8–73.3]	<b>86.6</b> [77.8–95.4]	<b>71.5</b> [57.9–85.1]	<b>79.4</b> [67.6–91.3]	<b>64.6</b> [54.2–74.9]	<b>67.0</b> [53.8–80.1]	<b>65.1</b> [54.7–75.6]

**Table A-4: Percentages and 95% Confidence Intervals for Responses Indicating Strong Anti-Tobacco Attitudes and Beliefs in Grades 11–12**

	Social Appeal		Normative Influence				
	Q46	Q47	Q69	Q71	Q66	Q67	
<b>Overall</b>							
<b>Total</b> n=3,482	<b>37.7</b> [34.6–40.7]	<b>69.2</b> [66.1–72.3]	<b>57.8</b> [54.2–61.4]	<b>35.2</b> [31.2–39.1]	<b>25.9</b> [23.1–28.8]	<b>45.1</b> [40.2–49.9]	
<b>White</b> n=2,210	<b>40.0</b> [36.6–43.5]	<b>66.7</b> [63.6–69.8]	<b>59.0</b> [54.2–63.9]	<b>31.1</b> [26.9–35.2]	<b>21.5</b> [18.5–24.5]	<b>41.4</b> [36.0–36.7]	
<b>Af-Am</b> n=449	<b>35.0</b> [30.9–39.0]	<b>79.0</b> [75.2–82.8]	<b>52.2</b> [46.2–58.3]	<b>49.2</b> [42.1–56.3]	<b>31.3</b> [26.7–35.9]	<b>49.9</b> [41.3–58.5]	
<b>Hisp</b> n=539	<b>31.2</b> [26.3–36.1]	<b>71.5</b> [67.5–75.5]	<b>59.8</b> [54.5–65.8]	<b>35.8</b> [28.6–43.0]	<b>37.0</b> [30.0–44.0]	<b>54.6</b> [47.0–62.3]	
<b>Other</b> n=231	<b>31.8</b> [21.8–41.8]	<b>60.6</b> [50.5–70.8]	<b>56.5</b> [56.5–62.5]	<b>37.0</b> [26.2–47.7]	<b>38.8</b> [32.7–44.9]	<b>53.8</b> [43.8–63.7]	
<b>Male</b>							
<b>White</b> n=1,169	<b>34.9</b> [31.6–38.2]	<b>60.3</b> [56.2–64.3]	<b>59.5</b> [53.7–65.4]	<b>33.0</b> [28.3–37.7]	<b>21.6</b> [18.3–24.9]	<b>42.5</b> [36.2–48.7]	
<b>Af-Am</b> n=193	<b>31.4</b> [24.7–38.2]	<b>70.8</b> [63.9–77.8]	<b>53.7</b> [45.7–61.6]	<b>47.1</b> [37.9–56.3]	<b>37.1</b> [31.0–43.2]	<b>49.0</b> [40.2–57.8]	
<b>Hisp</b> n=249	<b>23.0</b> [18.3–27.7]	<b>62.6</b> [57.6–67.6]	<b>58.9</b> [52.8–65.1]	<b>31.3</b> [22.2–40.5]	<b>35.8</b> [28.9–42.7]	<b>51.9</b> [45.4–58.4]	
<b>Other</b> n=130	<b>27.3</b> [15.4–39.2]	<b>51.1</b> [34.9–67.2]	<b>50.5</b> [40.2–60.9]	<b>29.0</b> [17.3–40.8]	<b>33.0</b> [23.8–42.3]	<b>47.7</b> [35.9–59.5]	
<b>Female</b>							
<b>White</b> n=1,031	<b>45.9</b> [41.3–50.4]	<b>73.8</b> [70.3–77.3]	<b>58.5</b> [53.6–63.3]	<b>29.2</b> [24.6–33.7]	<b>21.3</b> [17.1–25.6]	<b>40.4</b> [34.5–46.3]	
<b>Af-Am</b> n=254	<b>37.6</b> [32.2–43.0]	<b>85.3</b> [80.3–90.4]	<b>51.3</b> [43.1–59.0]	<b>50.5</b> [43.4–57.6]	<b>26.7</b> [19.9–33.4]	<b>50.3</b> [39.3–61.3]	
<b>Hisp</b> n=285	<b>38.4</b> [31.0–45.8]	<b>79.8</b> [73.9–85.7]	<b>60.7</b> [51.9–69.5]	<b>39.7</b> [31.1–48.3]	<b>37.8</b> [29.1–46.6]	<b>56.8</b> [46.3–67.3]	
<b>Other</b> n=100	<b>37.9</b> [27.0–48.8]	<b>73.5</b> [61.5–85.5]	<b>63.8</b> [54.1–73.5]	<b>47.6</b> [34.9–60.3]	<b>46.3</b> [35.2–57.3]	<b>61.6</b> [53.3–69.9]	
	Attitudes and Beliefs About Smoking				Behavioral Intent		
	Q50	Q52	Q45	Q68	Q41	Q42	Q43
<b>Overall</b>							
<b>Total</b> n=3,482	<b>59.7</b> [56.8–62.7]	<b>83.7</b> [81.4–86.0]	<b>76.0</b> [74.3–77.8]	<b>75.4</b> [72.6–78.1]	<b>46.2</b> [42.6–49.8]	<b>54.7</b> [50.9–58.4]	<b>49.4</b> [45.6–53.1]
<b>White</b> n=2,210	<b>55.2</b> [52.3–58.1]	<b>86.6</b> [84.2–89.1]	<b>77.1</b> [75.1–79.2]	<b>74.9</b> [71.4–78.4]	<b>40.0</b> [36.8–43.3]	<b>50.4</b> [44.9–57.3]	<b>43.2</b> [39.5–46.8]
<b>Af-Am</b> n=449	<b>76.8</b> [72.1–81.6]	<b>77.8</b> [72.5–83.1]	<b>74.3</b> [69.1–79.5]	<b>79.8</b> [76.2–83.3]	<b>65.8</b> [58.4–73.1]	<b>73.2</b> [69.2–77.1]	<b>70.0</b> [64.8–75.2]
<b>Hisp</b> n=539	<b>61.0</b> [56.2–65.8]	<b>80.9</b> [76.5–85.3]	<b>73.6</b> [70.3–76.9]	<b>72.6</b> [69.0–76.3]	<b>47.8</b> [42.5–53.0]	<b>51.1</b> [44.9–57.3]	<b>51.3</b> [45.9–56.7]
<b>Other</b> n=231	<b>53.0</b> [43.2–62.7]	<b>73.3</b> [65.0–81.6]	<b>73.2</b> [63.9–82.5]	<b>72.0</b> [61.5–82.4]	<b>51.7</b> [41.0–62.4]	<b>50.9</b> [40.2–61.7]	<b>49.7</b> [38.9–60.5]
<b>Male</b>							
<b>White</b> n=1,169	<b>52.5</b> [48.7–56.2]	<b>85.0</b> [81.8–88.2]	<b>72.0</b> [68.5–75.6]	<b>70.8</b> [66.3–75.2]	<b>42.1</b> [37.8–46.4]	<b>52.5</b> [48.4–56.6]	<b>45.7</b> [41.2–50.3]
<b>Af-Am</b> n=193	<b>68.8</b> [62.3–75.2]	<b>68.1</b> [61.3–75.0]	<b>69.7</b> [64.0–75.5]	<b>71.7</b> [63.6–79.9]	<b>66.1</b> [59.5–72.6]	<b>73.4</b> [68.0–78.8]	<b>66.8</b> [59.3–74.2]
<b>Hisp</b> n=249	<b>53.3</b> [47.8–58.8]	<b>78.6</b> [72.2–85.0]	<b>68.2</b> [69.1–74.4]	<b>69.5</b> [63.9–75.2]	<b>45.4</b> [35.9–54.8]	<b>44.1</b> [36.3–51.9]	<b>46.1</b> [36.7–55.5]
<b>Other</b> n=130	<b>45.5</b> [31.6–59.4]	<b>63.2</b> [53.0–73.3]	<b>66.5</b> [55.8–77.2]	<b>63.4</b> [49.1–77.6]	<b>43.4</b> [31.2–55.6]	<b>42.3</b> [28.2–56.4]	<b>44.5</b> [31.3–57.8]
<b>Female</b>							
<b>White</b> n=1,031	<b>58.4</b> [54.8–62.0]	<b>88.6</b> [85.1–92.0]	<b>82.6</b> [80.4–84.7]	<b>79.4</b> [75.8–83.1]	<b>37.7</b> [33.5–41.9]	<b>48.3</b> [43.4–53.1]	<b>40.4</b> [35.5–45.3]
<b>Af-Am</b> n=254	<b>83.1</b> [77.2–89.0]	<b>85.3</b> [77.8–92.7]	<b>78.1</b> [70.3–86.0]	<b>85.9</b> [79.2–92.6]	<b>65.3</b> [55.3–75.3]	<b>72.8</b> [67.3–78.3]	<b>72.4</b> [66.1–78.6]
<b>Hisp</b> n=285	<b>67.7</b> [61.1–74.2]	<b>83.0</b> [78.0–87.9]	<b>78.5</b> [73.7–83.3]	<b>75.7</b> [72.3–79.1]	<b>50.0</b> [42.4–57.5]	<b>57.5</b> [49.9–65.2]	<b>56.1</b> [47.6–64.7]
<b>Other</b> n=100	<b>63.3</b> [52.9–73.8]	<b>87.3</b> [77.9–96.6]	<b>82.0</b> [71.4–92.6]	<b>82.7</b> [74.8–90.5]	<b>63.0</b> [52.4–73.7]	<b>62.7</b> [52.5–72.9]	<b>56.9</b> [46.3–67.6]

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