Results from the 2018 Indiana Youth Tobacco Survey

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Tobacco Prevention and Cessation Commission

Indiana State Department of Health

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Contents

Executive Summary

The Indiana Youth Tobacco Survey (IYTS) has been administered among public middle and high school students in Indiana since 2000. The survey measures youth tobacco use, secondhand smoke exposure, access to tobacco, youth attitudes and beliefs, and social and environmental influences related to tobacco use. Ongoing assessment of these measures is a crucial component of monitoring progress in preventing youth tobacco use and protecting youth from exposure to secondhand smoke. This report summarizes the results from the 2018 Indiana Youth Tobacco Survey and highlights both progress and challenges in two major priority areas of the Indiana Tobacco Control Strategic Plan: decreasing youth tobacco use and increasing protections from secondhand smoke.

Summary of Key Results

Ever Use of Tobacco Products

In 2018, more than two in five Indiana high school students (45.4%) and about one in five middle school students (21.4%) reported ever trying any tobacco product in their lifetime.[a] Ever use of several tobacco products, including cigarettes, cigars, and smokeless tobacco, declined significantly among Indiana youth between 2000 and 2018. In contrast, ever use of electronic cigarettes (e-cigarettes) among both high school and middle school students increased significantly between 2012 and 2018 and while there was a decrease between 2014 and 2016, the increase in ever use between 2016 and 2018 was also significant. Ever use of JUUL, while slightly lower than e-cigarette use among middle school students, is following similar trends of use among all demographic groups as e-cigarettes. Among high school students JUUL ever use was slightly higher than e-cigarette use, this was true among all race/ethnicities and both genders, with more high school females reporting trying JUUL than e-cigarettes. In 2018, Hoosier middle and high school students most commonly reported ever using e-cigarettes and cigarettes, respectively, followed by cigars and smokeless tobacco.

Current Use of Tobacco Products

In 2018, more than one in five Indiana high school students (22.9%) and nearly one in 12 middle school students (8.1%) reported current use (on one or more of the past 30 days) of any tobacco product. There has been substantial progress, however, in reducing youth tobacco use in Indiana, as current use of several tobacco products declined significantly among Hoosier youth between 2000 and 2018. In particular, cigarette smoking declined from 9.8% to 1.9% among middle school students and from 31.6% to 5.2% among high school students. Furthermore, students who do smoke are starting later, smoking fewer cigarettes, and smoking less often. Similarly, since 2000 current use of cigars has declined significantly as well as use of smokeless tobacco among both middle school and high school students.

Some challenges remain, however, in reducing tobacco use among Hoosier youth. Use of emerging tobacco products such as e-cigarettes remains a concern. Between 2016 and 2018, current use of e-cigarettes nearly doubled among Hoosier youth. Since 2012, e-cigarette use among middle school and high school students has increased nearly fivefold. E-cigarettes remained the most commonly used tobacco product among Indiana middle school (5.5%) and high school (18.5%) students in 2018. Even higher rates of use were found for use of JUUL (6.0% and 24.2%) in 2018. Nearly three in 10 middle school students and four in 10 high school students reported using an e-cigarette with other

[a] Any tobacco use includes use of cigarettes, cigars, smokeless tobacco, pipes, hookahs, snus, dissolvable tobacco, or electronic cigarettes (e-cigarettes).

substances than nicotine, such as marijuana, THC or hash oil, or THC wax. Additionally 4.0% of middle school students and 16.1% of high school students reported current use of marijuana. Finally, poly-tobacco use (current use of two or more tobacco products) remains quite high among youth who use tobacco; about 31.8% of middle school tobacco users and 39.1% of high school tobacco users reported using two or more tobacco products in 2018. Overall, these trends and patterns in current tobacco use among Hoosier youth were relatively comparable to trends among youth nationwide.[1]

Tobacco Cessation

In addition to preventing youth tobacco initiation, encouraging tobacco users to quit is a key component of protecting Hoosier youth from the harms of tobacco. In 2018, more than three in five middle school tobacco users (64.6%) and one in two high school tobacco users (50.4%) attempted to quit using all tobacco in the past 12 months. Intentions to quit using tobacco in the near future, however, were somewhat lower. Only about 35.0% of middle school tobacco users and 36.7% of high school tobacco users were seriously thinking about quitting all tobacco in the next 12 months. Additionally, use of evidence-based methods to quit tobacco remained low among Indiana youth in 2018, as the majority of middle school (64.6%) and high school (82.2%) tobacco users who attempted to quit reported that they tried to quit without any assistance. Unfortunately, there has been significant decline from 2016 to 2018 in students' interactions with health care providers regarding tobacco use. Specifically, a significant decline is seen in the proportion of youth who report being asked by a health care provider whether they use tobacco and in the proportion of tobacco users who indicate that a health care provider advised them not to use tobacco.

Youth Access and Purchasing

Reducing youth access to tobacco is a key component of youth tobacco prevention efforts.[2] In 2018, more than three in 10 middle school youth (31.9%) and more than three in five high school youth under age 18 (62.6%) believed it would be somewhat or very easy to get tobacco products if they wanted some. Among youth under age 18 who currently use cigarettes, cigars, or smokeless tobacco, the majority reported obtaining their tobacco products from social sources, such as having someone else purchase tobacco for them or borrowing tobacco. Some underage youth, however, still reported purchasing tobacco in retail settings. Among high school students under age 18, 17.1% of cigarette users, 18.6% of cigar users, and 21.5% of smokeless tobacco users reported purchasing their own tobacco products. Youth who purchased tobacco products most commonly reported purchasing these products from gas stations or convenience stores.

Secondhand Smoke Exposure

In recent years, there has been substantial progress but also some continued challenges in protecting Indiana youth from secondhand smoke. In 2018, approximately three in four middle school (72.0%) and high school (76.3%) youth reported not being exposed to secondhand smoke in their home. Additionally, the percentage of students who indicate that smoking is never allowed inside their home or family vehicles has increased significantly since 2004. Exposure to secondhand smoke continues to be far higher, however, among youth who live with smokers than those who do not. In 2018, more than five in 10 middle school (54.3%) and nearly five in 10 high school (49.5%) youth who lived with a smoker reported exposure to secondhand smoke at home, compared with about one in 12 youth who did not live with a smoker. Youth who lived with smokers also were significantly more likely to be exposed to secondhand smoke in vehicles and less likely to have rules against smoking in their home or family vehicles. Additionally, some Hoosier youth continue to report exposure to secondhand smoke in indoor or outdoor public places, such as school grounds, workplaces, or other public places. Overall, half of middle school students (50.2%)

and more than half of high school students (51.6%) reported past-week secondhand smoke exposure in any location (home, vehicles, public places, school, or workplaces), highlighting a continued need to protect Hoosier youth from secondhand smoke.

Social Influences Related to Tobacco Use

Social factors such as family or peer tobacco use may influence youth tobacco use behaviors.[3,4] In 2018, more than two in five Hoosier middle school students (43.0%) and high school students (42.3%) reported living with someone who used tobacco products. Additionally, about 22.5% of middle school students and 46.4% of high school students reported having at least one friend who used cigarettes, e-cigarettes, or smokeless tobacco. Youth who lived with tobacco users or had friends who used tobacco were significantly more likely to currently use tobacco than youth who did not have household members or friends who used tobacco.

Tobacco Marketing

Exposure to tobacco marketing increases the likelihood that youth will start using tobacco.[5] Although several forms of tobacco advertising have been restricted, youth continue to be exposed to tobacco marketing through a variety of channels. In 2018, youth most commonly reported exposure to tobacco advertising in retail settings, with more than six in 10 middle (66.5%) and seven in 10 high school (70.1%) students exposed to tobacco ads in retail settings such as convenience stores, supermarkets, or gas stations. In addition, more than four in 10 middle (42.8%) and high school (42.4%) youth reported exposure to tobacco ads on the Internet. Another 16.9% of middle school students and 20.9% of high school students reported seeing ads for tobacco in newspapers and magazines. Youth also continue to be exposed to depictions of tobacco use in television and movies. More than five in 10 middle (56.1%) and high school (56.8%) youth reported seeing actors using tobacco products on TV and in movies. From all four sources combined, more than eight in 10 middle (82.7%) and high school (82.7%) youth reported any exposure to tobacco advertising or media depictions of tobacco use.

Perceptions, Attitudes, and Beliefs Related to Tobacco

In 2018, most Hoosier youth reported high levels of awareness of the dangers of tobacco use. The majority of youth did not believe that smoking makes young people look cool, fit in, or have more friends. Some youth, however, reported attitudes and beliefs that indicate a continued need to raise awareness about the dangers of tobacco and promote tobacco-free social norms. Additionally, one in four youth who had never smoked were susceptible to trying cigarettes in the near future. Furthermore, youth may not perceive all tobacco products as harmful; only about 2 in 3 middle school students and 1 in 2 high school students strongly agreed that all tobacco products are dangerous. Overall, these beliefs indicate a continued need to raise awareness about the harms of all tobacco products among Hoosier youth.

Progress Toward Indiana Tobacco Control Strategic Plan Objectives

The 2020 Indiana Tobacco Control Strategic Plan includes several objectives related to reducing youth tobacco use and secondhand smoke exposure. The IYTS is the primary instrument for assessing progress toward many of these objectives. In 2018, Indiana made strides toward meeting several target objectives, including reducing youth smoking and other tobacco use. Baseline, current, and target measures for Indiana's youth-focused tobacco control objectives are outlined in Table E-1.

Table E-1. Youth-focused Indiana Tobacco Control Strategic Plan Objectives

Measure	2014 (Baseline)	2016	2018	2020 Target
	Long-term Objectives			
Decrease smoking among middle school youth	2.9%	1.8%	1.9%	2.0%
Decrease smoking among high school youth	12.0%	8.7%	5.2%	9.0%
Decrease "frequent" smoking among high school youth	5.5%	2.5%	1.6%	4.0%
Decrease e-cigarette use among high school youth	15.1%	10.5%	18.5%	15.0%
Decrease poly-tobacco use* among high school youth	14.8%	10.5%	9.0%	15.0%
Decrease tobacco use among middle school youth				
Combustible tobacco use**	4.4%	3.0%	3.6%	2.0%
Noncombustible tobacco use***	6.6%	3.7%	6.8%	5.0%
Decrease tobacco use among high school youth				
Combustible tobacco use	18.6%	14.4%	10.1%	15.0%
Noncombustible tobacco use	20.4%	14.4%	20.2%	18.0%
Intermediate Objectives				
Increase the proportion of youth who have never smoked and are not susceptible to smoking				
Middle school youth	83.4%	79.2%	74.3%	88.0%
High school youth	80.2%	77.4%	76.1%	84.0%
Increase the proportion of youth not exposed to secondhand smoke in the home in the past 7 days				
Middle school youth	71.1%	76.3%	72.0%	80.0%
High school youth	68.0%	72.4%	76.3%	77.0%
Short-term Objectives				
Increase the proportion of youth who think tobacco companies try to get young people to use tobacco products				
Middle school youth	55.0%	61.6%	68.4%	65.0%
High school youth	60.4%	58.3%	66.5%	68.0%
Increase the proportion of youth who strongly agree that all tobacco products are dangerous				
Middle school youth	71.6%	69.5%	65.1%	78.0%
High school youth	61.5%	59.2%	50.6%	70.0%

*Current use of two or more of the following products: cigarettes, cigars, smokeless tobacco, e-cigarettes, hookahs, pipes, bidis, snus, or dissolvable tobacco. In 2018, current use of bidis was not measured.
**Current use of cigarettes, cigars, hookahs, pipes, or bidis. In 2018, current use of bidis was not measured.
***Current use of smokeless tobacco, e-cigarettes, snus, or dissolvable tobacco

Strategies for Reducing Youth Tobacco Use

Although substantial progress in reducing youth smoking has been made in recent years, an estimated 3,100 Indiana youth become new daily smokers each year.[6] Additionally, an estimated 151,000 Hoosier youth currently under age 18 will eventually die prematurely from smoking unless there is continued progress in preventing youth smoking.[7] Furthermore, other tobacco products, including e-cigarettes, cigars, and smokeless tobacco, continue to threaten the health of Indiana youth. Continuing to monitor tobacco use, social and environmental factors that influence youth tobacco use, and secondhand smoke exposure is a vital component of reducing tobacco use and protecting the health of all Hoosier youth.

Continued reductions in youth tobacco use also will require sustained implementation of comprehensive statewide tobacco control efforts. The Hoosier model for tobacco control, outlined in the 2020 Indiana Tobacco Control Strategic Plan, is based on the Centers for Disease Control and Prevention's (CDC's) *Best Practices for Comprehensive Tobacco Control Programs*. In 2014, the CDC released an updated version of *Best Practices*, which outlined five key components of state comprehensive tobacco control programs:

- State and community interventions
- Mass-reach health communications
- Cessation interventions
- Surveillance and evaluation
- Sustained investment in tobacco control infrastructure, administration, and management[8]

Additionally, CDC's *Best Practices* and the 2012 Surgeon General's Report, *Preventing Tobacco Use among Youth and Young Adults*, highlighted several effective strategies for reducing youth tobacco use, including:

- Mass media education campaigns
- Comprehensive community and statewide tobacco control programs
- Increased tobacco prices
- Restricting youth access to tobacco
- Evidence-based school programs [9,10]

Despite encouraging progress in reducing youth use of combustible tobacco products and protecting youth from secondhand smoke, use of noncombustible tobacco products is rising and could potentially pose serious health risks for too many Hoosier youth. Implementing these best practices will be necessary to achieve sustained reductions in youth tobacco use and protect the health of all Hoosiers.

1. Introduction

The Indiana Youth Tobacco Survey (IYTS) has been administered since 2000 to monitor youth tobacco use, secondhand smoke exposure, youth attitudes toward tobacco use, and social and environmental influences related to tobacco use among Indiana middle and high school students. This report summarizes results from the 2018 IYTS.

- Section 1 provides an overview of the IYTS methodology.
- Sections 2 and 3 summarize trends in lifetime use and current use of tobacco products among youth, including cigarettes, cigars, smokeless tobacco, e-cigarettes, JUUL, other tobacco products and marijuana.
- Section 4 presents data on tobacco cessation, including cessation attempts, intent to quit using tobacco, cessation strategies, and health care provider advice regarding tobacco use.
- Section 5 summarizes youth access to tobacco products.
- Section 6 highlights trends in youth secondhand smoke exposure.
- Section 7 presents data on social influences related to youth tobacco use, including household and peer tobacco use, perceived peer tobacco use, and parental and educational influences.
- Section 8 summarizes youth exposure to tobacco industry marketing.
- Section 9 highlights youth perceptions, attitudes, and beliefs related to tobacco use.

Data and Methods

The IYTS is a school-based survey of public middle school students (grades 6 through 8) and public high school students (grades 9 through 12) that captures information on various tobacco-related issues, such as tobacco use, smoking cessation, secondhand smoke exposure, tobacco access, tobacco marketing, tobacco-related attitudes and beliefs, and social influences related to tobacco use. The survey instrument includes a standard set of questions that were developed by the Centers for Disease Control and Prevention (CDC), along with optional questions that can be added by state tobacco control programs to measure progress toward program goals and objectives.

Sampling Procedures

The 2018 IYTS consisted of two samples (middle school and high school) and, within the samples, was a two-staged cluster design. In the first stage, schools were selected randomly within the grade range specified with a probability proportional to enrollment size. Schools with a high proportion (≥20%) of African American and Hispanic students were over-sampled to enable calculation of reliable estimates for these groups. In the second stage, classes were randomly selected from within each participating school, and all the students within a selected class were given the opportunity to complete the survey. Parents were informed by letter about the survey and were able to notify the school if they did not want their child to participate. Students were informed that survey participation was voluntary and were instructed not to include any identifying information in their survey booklets.

In 2018, 44 of 59 sampled middle schools participated in the IYTS. Among the schools that participated, 2,647 of 2,913 sampled students completed usable questionnaires for an

overall response rate of 67.8%.[b] Additionally, 44 of 60 sampled high schools participated in the IYTS. Among the high schools that participated, 3,292 of 3,835 sampled students completed usable questionnaires for an overall response rate of 62.9%. For reliability, CDC's target overall response rate is 60%.

Data Cleaning and Analysis

Following data collection, the CDC processed and cleaned the data and created weights to account for unequal probability of selection, nonresponse, and demographics (gender, grade, and race/ethnicity) of students enrolled Indiana public middle and high schools. The Tobacco Prevention and Cessation Commission (TPC) then conducted additional data cleaning of inconsistent responses in select pairs of survey questions, including ever and current tobacco use questions. When respondents provided inconsistent responses (for example, answering that they had never tried a tobacco product but also currently used that product), both responses were set to missing. These corrections also were applied to past survey years.

Following data cleaning, TPC analyzed the data using SAS® version 9.4 survey procedures to account for the complex sample design and weights. Where possible, comparisons were made between the 2000 IYTS (or the earliest baseline survey year) and the 2018 IYTS and between the 2016 and 2018 IYTS. For select variables, comparisons also were made between demographic or other relevant groups. Rao-Scott chi-square tests were conducted to assess differences between groups and binary year-to-year comparisons. Where appropriate, logistic regression was conducted to test for trends over time. For all analyses, p-values less than 0.05 were considered statistically significant.

Tobacco Use Definitions

Data on both ever use and current use of tobacco products are presented in this report. Ever use is defined as students having ever tried tobacco products at least once in their lifetime. Current use is defined as use of tobacco products on one or more of the past 30 days. Due to changes in the survey instrument, the wording of some tobacco use questions has changed across survey years. Where applicable, these wording changes have been noted throughout this report.

Changes to the 2018 IYTS

Beginning in 2018, ever use and current use of bidis is no longer collected with the IYTS instrument. Additionally, bidis use (ever/current) is no longer reflected in other tobacco product use (ever/current) or poly-tobacco use. This decision is based on the overall small prevalence of bidis use among Hoosier youth. While bidis use is being removed from the 2018 IYTS, JUUL use and marijuana use have been included for the first time.

Limitations

At least four limitations of this report should be noted. First, the IYTS is conducted among only public middle and high school students. The results are therefore not generalizable to students who are enrolled in private schools or charter schools; are home-schooled; or are in detention centers. They also do not capture youth who have dropped out of school and may underrepresent students who are frequently absent from school. Second, all data are self-reported and might be subject to response and recall bias. Third, changes in question wording across survey years may affect the comparability of some estimates over time.

[b] Overall response rate = (% of sampled schools that participated) * (% of sampled students who completed usable questionnaires)

These changes, however, have been largely consistent with changes in the National Youth Tobacco Survey instrument developed by the CDC. Fourth, due to small sample sizes for some racial/ethnic groups, estimates presented by race/ethnicity in this report are limited to non-Hispanic white, non-Hispanic black, and Hispanic students. Throughout this report, race and ethnicity are treated as mutually exclusive categories. Black and white students include only those who identified as non-Hispanic or were missing data on Hispanic ethnicity. Hispanic students may be of any race.

Sample Characteristics

Table 1-1 presents unweighted and weighted sample characteristics of the 2018 IYTS by age, gender, race/ethnicity, and grade in school.

Table 1-1. 2018 Indiana YTS Unweighted and Weighted Sample Characteristics

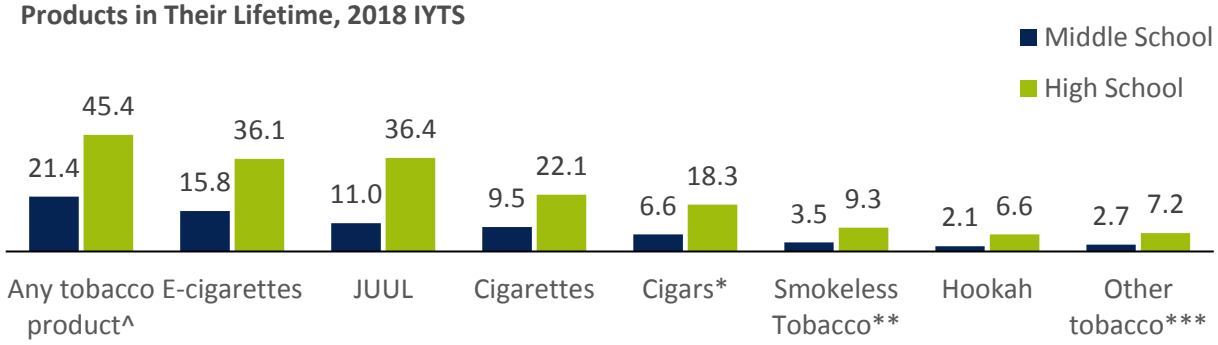
Demographic Group	Middle School			High School		
	N	Unweighted %	Weighted %	N	Unweighted %	Weighted %
Total	2,647			3,292		
Age						
11 years or younger	386	14.7	21.8	7	0.2	0.2
12 years	744	28.3	32.7	1	0.0	0.0
13 years	1,020	38.8	31.6	9	0.3	0.2
14 years	458	17.4	13.1	657	20.1	17.0
15 years	23	0.9	0.7	895	27.3	24.2
16 years	0	0.0	0.0	798	24.4	24.9
17 years	0	0.0	0.0	638	19.5	23.1
18 years or older	1	0.0	0.0	269	8.2	10.3
Missing	15			18		
Gender						
Female	1,324	50.6	48.5	1,658	50.9	48.7
Male	1,292	49.4	51.5	1,599	49.1	51.3
Missing	20			35		
Race/Ethnicity						
White	1,672	63.9	68.4	2,193	67.3	70.1
Black/African American	289	11.0	11.4	356	10.9	11.2
Hispanic	447	17.1	12.6	566	17.4	11.6
Other	209	8.0	7.6	142	4.4	7.1
Missing	30			35		
Grade						
6th	600	22.8	33.7			
7th	844	32.1	33.3			
8th	1,183	45.0	32.9			
9th				1,016	31.1	25.9
10th				863	26.4	25.0
11th				757	23.2	24.6
12th				632	19.3	24.5
Missing	20			24		

2. Ever Use of Tobacco Products

Ever Use of Tobacco Products, 2018

In 2018, 21.4% of middle school students and 45.4% of high school students reported ever using any tobacco product in their lifetime.[c] Among middle school students, electronic cigarettes (e-cigarettes) were the most common product ever used (15.8%), followed by JUUL (11.0%), cigarettes (9.5%), cigars (6.6%), smokeless tobacco (3.5%), and hookahs (2.1%). Among high school students, JUUL was the most common product used (36.4%), followed by e-cigarettes (15.8%), cigarettes (22.1%), cigars (18.3%), smokeless tobacco (9.5%), and hookah (6.6%). A smaller proportion of middle and high school students reported ever using other tobacco products such as pipes, snus, or dissolvable tobacco (Appendix Table A-17).

Figure 2-1. Percentage of Middle and High School Students Who Have Ever Used Tobacco Products in Their Lifetime, 2018 IYTS

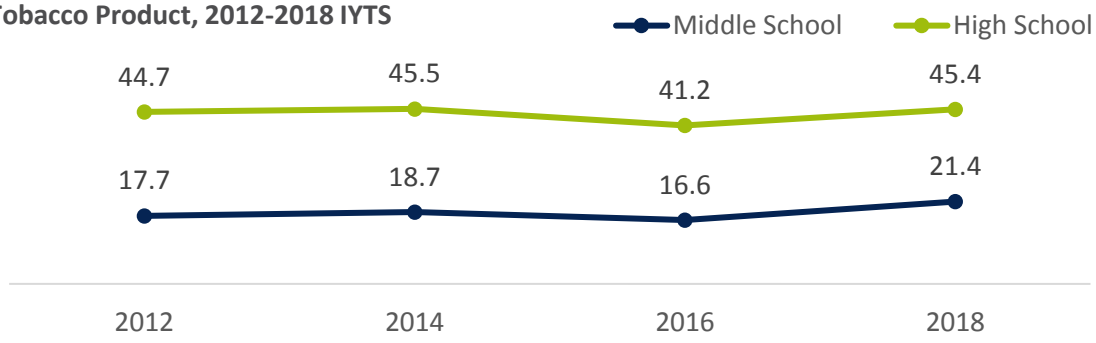


*Cigars, cigarillos, or little cigars
**Chewing tobacco, snuff, or dip
***Pipe, snus, and dissolvable tobacco
^ To remain consistent with previous years of data, 'any tobacco use' does not inuclude JUUL use.

Trends in Ever Use of Tobacco Products

Between 2012 and 2018, there were no overall changes in the prevalence of ever use of tobacco among middle or high school students. The prevalence of ever use of any tobacco product increased significantly among middle school students from 2016 to 2018. Although the prevalence of ever use of any tobacco was slightly higher among middle and high school students in 2018 compared with 2016, this increase was not significant.

Figure 2-2. Percentage of Middle and High School Students Who Have Ever Used Any Tobacco Product, 2012-2018 IYTS



[c] Prior to 2018, students were considered to have ever used tobacco if they reported ever trying cigarettes, e-cigarettes, cigars (including cigarillos or little cigars), smokeless tobacco (chewing tobacco, snuff, or dip), hookahs, pipes, bidis, snus, or dissolvable tobacco in their lifetime. In 2018, ever use of bidis was not measured.

Ever Use of Any Tobacco Product by Gender, Race/Ethnicity, and Grade in School

Among middle school students in 2018, ever use of any tobacco product was significantly higher among males than females. The increase in ever use of any tobacco product among high school males was not significant. Among middle school students, the prevalence of ever use of any tobacco product was significantly higher among black students (27.7%) than among white students (20.4%). Although the prevalence of ever use of any tobacco product was higher among Hispanic students (21.3%) than among white students this increase was not significant. Among high school students, ever use of any tobacco product was significantly higher among white students (46.3%) than Hispanic students (41.1%). There were no other significant differences in ever use of tobacco by race or ethnicity among high school students. Among both middle and high school students, the prevalence of ever use of tobacco increased with grade in school. In particular, more than half of high school seniors (56.4%) and nearly half of high school juniors (49.0%) reported ever trying any tobacco product in their lifetime.

Figure 2-3. Percentage of Middle School Students Who Have Ever Tried Any Tobacco Product in Their Lifetime, by Gender and Race/Ethnicity, 2018 IYTS

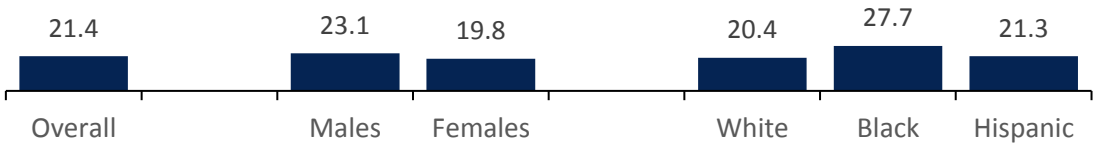


Figure 2-4. Percentage of High School Students Who Have Ever Tried Any Tobacco Product in Their Lifetime, by Gender and Race/Ethnicity, 2018 IYTS

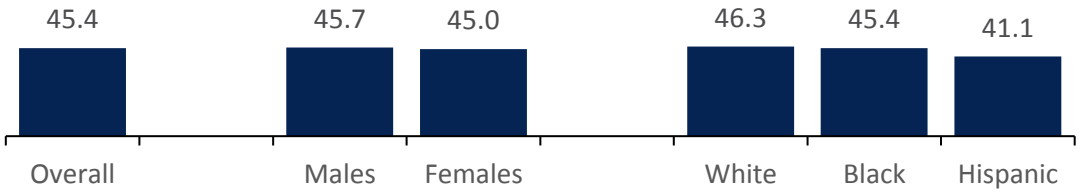
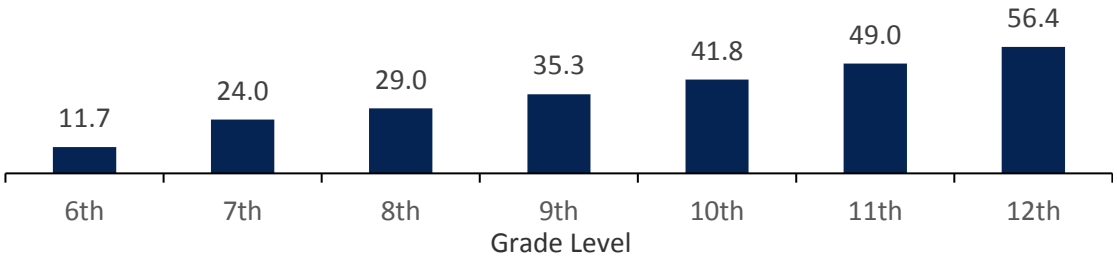


Figure 2-5. Percentage of Middle and High School Students Who Have Ever Tried Any Tobacco Product, by Grade in School, 2018 IYTS



Ever Use of Combustible and Noncombustible Tobacco

Tobacco products can be categorized into two broad classes: combustible and noncombustible. Combustible tobacco products involve burning tobacco to produce a smoke that users inhale. Noncombustible tobacco products do not involve burning tobacco. They include smokeless tobacco products that users hold in their mouths and then spit out as well as emerging products that do not involve burning tobacco, such as e-cigarettes and other electronic nicotine delivery systems (ENDS), which heat a liquid to produce an aerosol that users inhale.

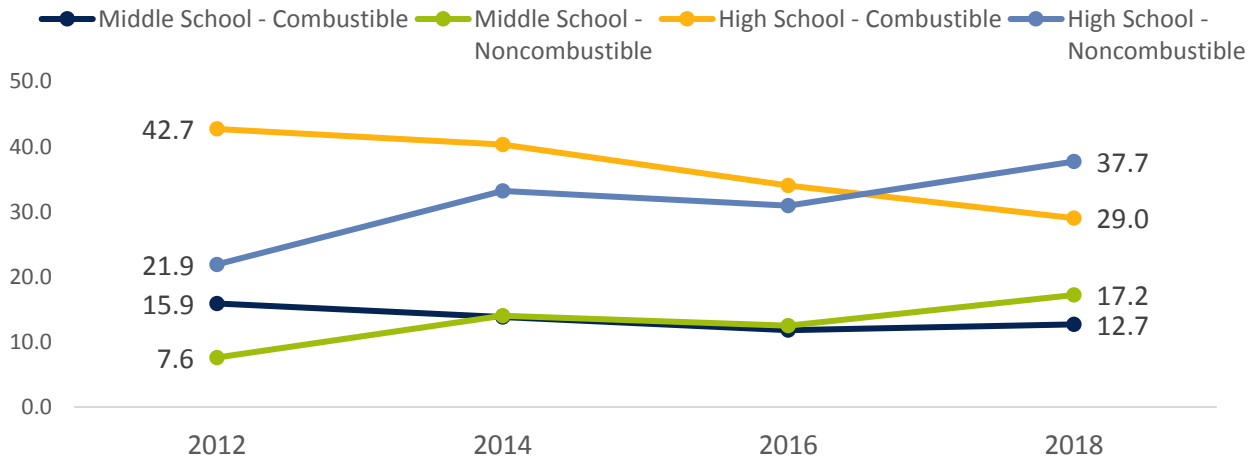
While combustible tobacco products continue to cause most tobacco-related disease and death in the United States, noncombustible products such as smokeless tobacco also pose health risks including cancer and nicotine addiction.[11,12] In addition, although the long-term health impact of ENDS use remains uncertain, nicotine use can have adverse effects on adolescent brain development.[13] Tobacco use by youth in any form, whether combustible or noncombustible, is therefore unsafe.[14]

Trends in Ever Use of Combustible and Noncombustible Tobacco, 2012-2018

Among high school students, the prevalence of ever use of combustible tobacco products declined significantly between 2012 and 2018. While there was a decline in ever use of combustible tobacco products among middle school students, it was not significant. Among middle school students, ever use of combustible tobacco fell from 15.9% in 2012 to 12.7% in 2018. Among high school students, ever use of combustible tobacco fell from 42.7% in 2012 to 29.0% in 2018.

In contrast, the prevalence of ever use of noncombustible tobacco has increased significantly since 2012 among both middle and high school students. While ever use of noncombustible tobacco decreased from 2014 to 2016 among both middle school and high school students, there was a significant increase in 2018 compared to 2016 as well as 2012. This increase was significant among both high school and middle school students and was driven primarily by a substantial increase in use of e-cigarettes between 2016 and 2018.

Figure 2-6. Percentage of Middle and High School Students Who Have Ever Used Combustible or Noncombustible Tobacco, 2012-2018 IYTS



Demographic Differences in Ever Use of Combustible Tobacco, 2018

In 2018, ever use of combustible tobacco was comparable among males and females in both middle and high school (Figures 2-7 and 2-8). Among middle school students, ever use of combustible tobacco was significantly higher among black (20.9%) students than white students (11.0%). While ever use of combustible tobacco is substantially higher among Hispanic middle school students (15.0%) than white middle school students, that difference is not significant. Among high school students, ever use of combustible tobacco was significantly higher among black students (33.4%) than Hispanic students (27.2%) and white students (28.2%). Among both middle and high school students, ever use of combustible tobacco increased with grade in school.

Figure 2-7. Percentage of Middle School Students Who Have Ever Used Combustible Tobacco, 2018

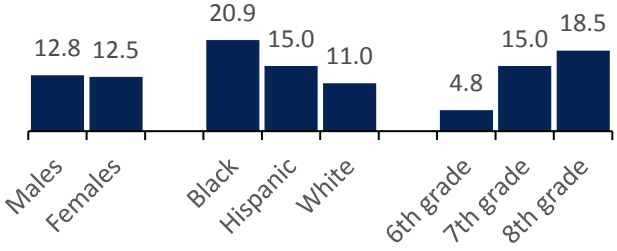
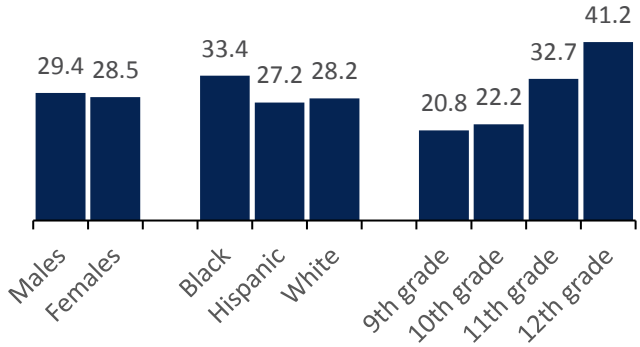


Figure 2-8. Percentage of High School Students Who Have Ever Used Combustible Tobacco, 2018



Demographic Trends in Ever Use of Combustible Tobacco, 2012-2018

Among students of both genders in middle and high school, ever use of combustible tobacco declined between 2012 and 2018, although these declines were significant among only high school males and females (Appendix Table A-3). Among middle school students, ever use of combustible tobacco increased among black students between 2012 and 2018 but this was not a significant increase. Ever use of combustible tobacco among white middle school students decreased significantly between 2012 and 2018 while there was only a slight decrease among Hispanic students (Figure 2-9). Among high school students, ever use of combustible tobacco declined significantly among white and Hispanic students between 2012 and 2018 but did not decline significantly among black students (Figure 2-10).

Figure 2-9. Percentage of Middle School Students Who Have Ever Used Combustible Tobacco, by Race/Ethnicity, 2012-2018 IYTS

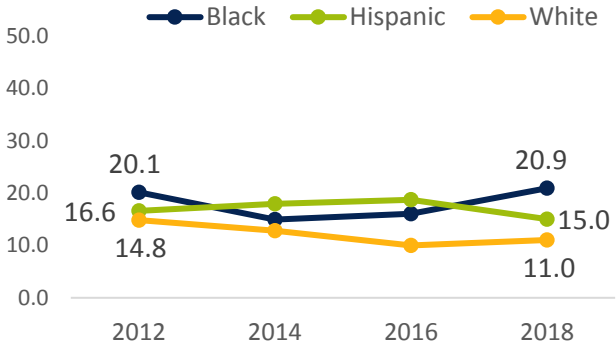
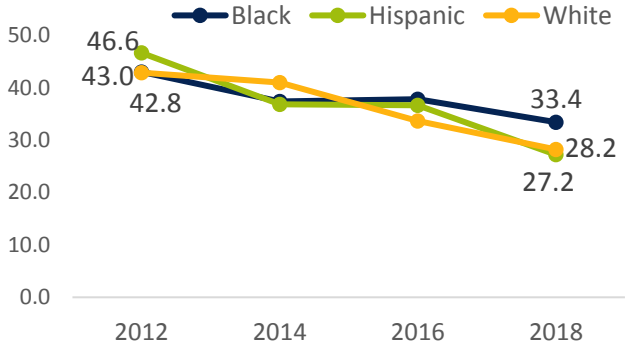


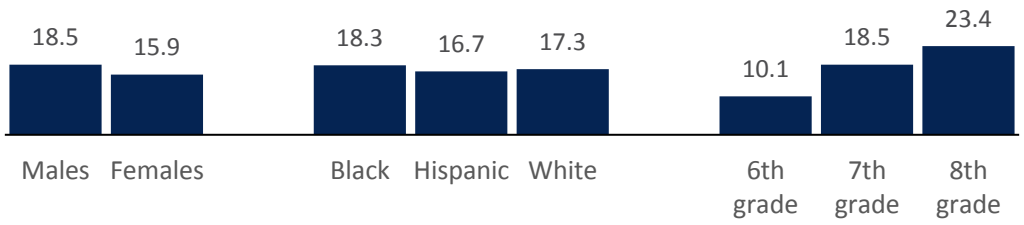
Figure 2-10. Percentage of High School Students Who Have Ever Used Combustible Tobacco, by Race/Ethnicity, 2012-2018 IYTS



Demographic Differences in Ever Use of Noncombustible Tobacco, 2018

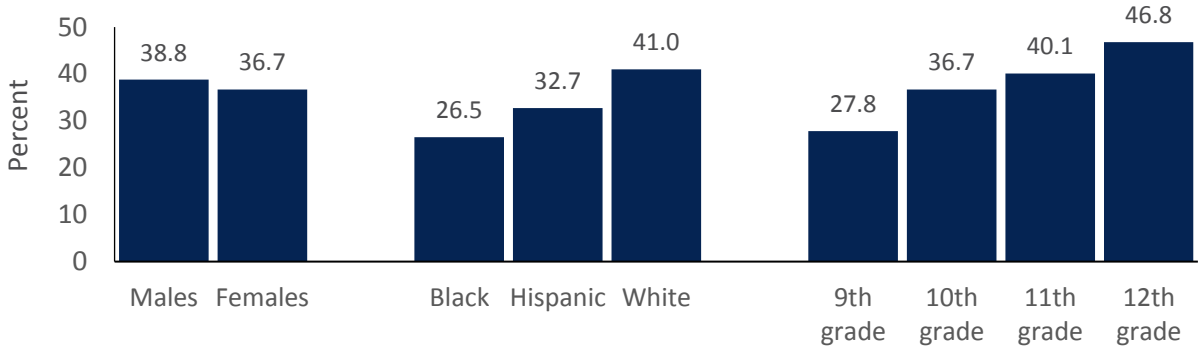
Among middle school students in 2018, ever use of noncombustible tobacco was slightly higher for males (18.5%) compared to females (15.9%), although this difference was not significant. Additionally, the proportion of black students (18.3%) who had ever used noncombustible tobacco was slightly, but not significantly, higher than among white students (17.3%) and Hispanic (16.7%) students. Finally, ever use of noncombustible tobacco was substantially higher among 8th grade students (23.4%) and 7th (18.5%) grade students compared to among 6th (10.1%) grade students.

Figure 2-11. Percentage of Middle School Students Who Have Ever Used Noncombustible Tobacco, 2018 IYTS



Among high school students in 2018, ever use of noncombustible tobacco was slightly higher among males (38.8%) than females (36.7%). Ever use of noncombustible tobacco was also significantly higher among white students (41.0%) compared to Hispanic students (32.7%) and black students (26.5%) but did not differ significantly between Hispanic and black students. Like among middle school students, ever use of noncombustible tobacco increased with increasing grade level in school.

Figure 2-12. Percentage of High School Students Who Have Ever Used Noncombustible Tobacco, 2018 IYTS



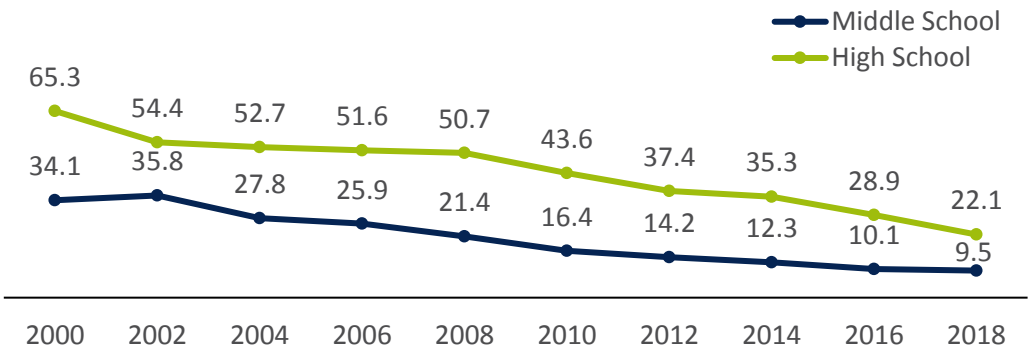
Demographic Trends in Ever Use of Noncombustible Tobacco, 2012-2018

In general, trends in ever use of noncombustible tobacco among demographic groups mirrored overall trends. Among both middle and high school students, youth of both genders and each racial/ethnic group saw a significant increase in ever use of noncombustible tobacco between 2012 and 2018. These increases were largely driven by the rise in ever use of e-cigarettes during that time period. (See Appendix Table A-5.)

Trends in Ever Use of Cigarettes

In 2018, 9.5% of middle school students and 22.1% of high school students reported ever using cigarettes. Among both middle and high school students, the prevalence of ever use of cigarettes decreased significantly between 2000 and 2018. Among middle school students, the prevalence of ever smoking declined slightly but not significantly between 2016 (10.1%) and 2018 (9.5%). Among high school students, the prevalence of ever smoking declined from 28.9% in 2016 to 22.1% in 2018, a significant decrease.

Figure 2-13. Percentage of Middle and High School Students Who Have Ever Smoked Cigarettes in Their Lifetime, 2000-2018 IYTS



Ever Use of Cigarettes by Gender, Race/Ethnicity, and Grade in School

Between 2000 and 2018, the prevalence of ever smoking declined significantly among students of all genders and races/ethnicities in both middle and high school. The prevalence of ever smoking also significantly declined between 2016 and 2018 among both genders and all racial/ethnic groups of high school students. Although the prevalence of ever smoking also declined slightly between 2016 and 2018 among both genders and all racial/ethnic groups of middle school students, these declines were not statistically significant. (See Appendix Table A-7.)

In 2018, there were no significant differences in the prevalence of ever smoking between males and females in middle or high school. White high school students were significantly more likely to have ever smoked than black or Hispanic high school students, but there were no other significant differences by race or ethnicity among middle or high school students. Among both middle and high school students, the prevalence of ever smoking increased significantly with grade in school.

Figure 2-14. Percentage of Middle School Students Who Have Ever Used Cigarettes, 2018 IYTS

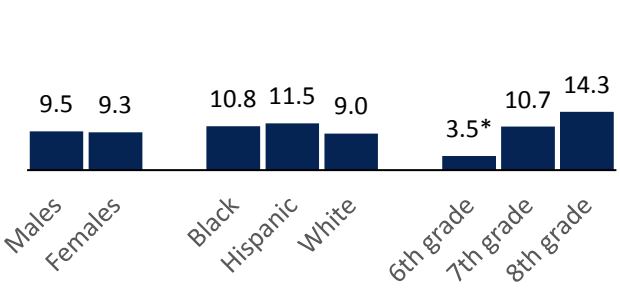
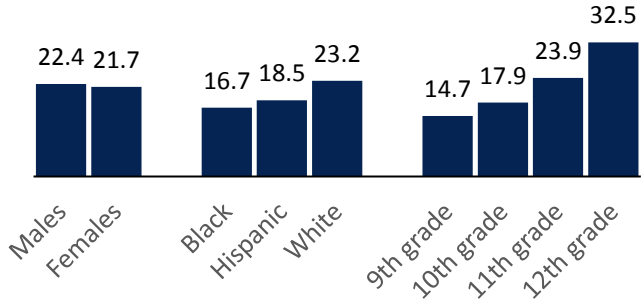


Figure 2-15. Percentage of High School Students Who Have Ever Used Cigarettes, 2018 IYTS

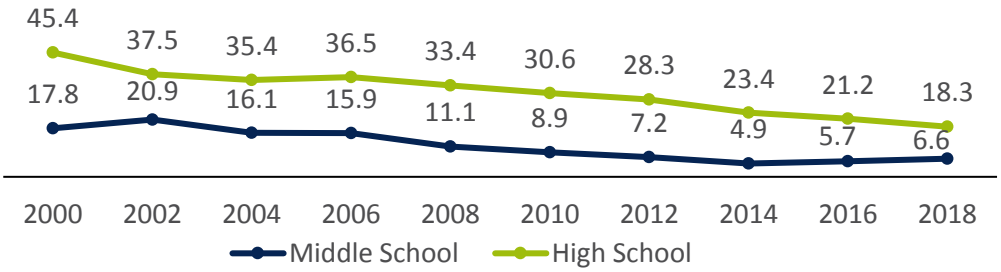


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Trends in Ever Use of Cigars

In 2018, 6.6% of middle school students and 18.3% of high school students reported ever smoking cigars (including cigarillos and little cigars).[d] Among both middle and high school students, the prevalence of ever use of cigars decreased significantly between 2000 and 2018. Between 2016 and 2018, ever use of cigars increased slightly but not significantly among middle school students and decreased slightly but not significantly among high school students.

Figure 2-16. Percentage of Middle and High School Students Who Have Ever Smoked Cigars, Cigarillos, or Little Cigars in Their Lifetime, 2000-2018 IYTS



Ever Use of Cigars by Gender, Race/Ethnicity, and Grade in School

Between 2000 and 2018, ever use of cigars declined significantly among middle and high school students of both genders. Ever use of cigars among middle school students significantly declined between 2000 and 2018 among all races/ethnicities. Additionally, ever use of cigars declined significantly among white and Hispanic high school students. (See Appendix Table A-9.)

Among middle school students in 2018, the prevalence of ever cigar smoking was not significantly different between males and females, but it was significantly higher among black students (12.5%) than white students (5.6%). Ever use of cigars was higher among black students than Hispanic students (7.3) but this was not a significant difference.

Figure 2-17. Percentage of Middle School Students Who Have Ever Used Cigars, 2018 IYTS

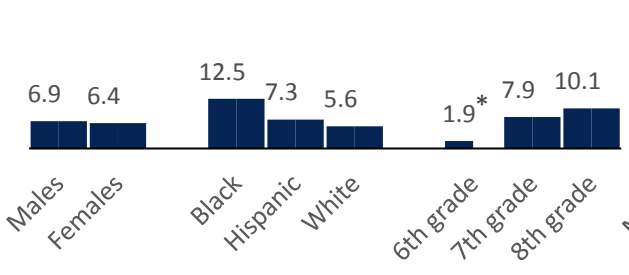
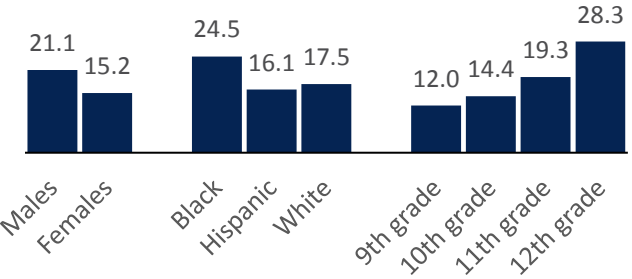


Figure 2-18. Percentage of High School Students Who Have Ever Used Cigars, 2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

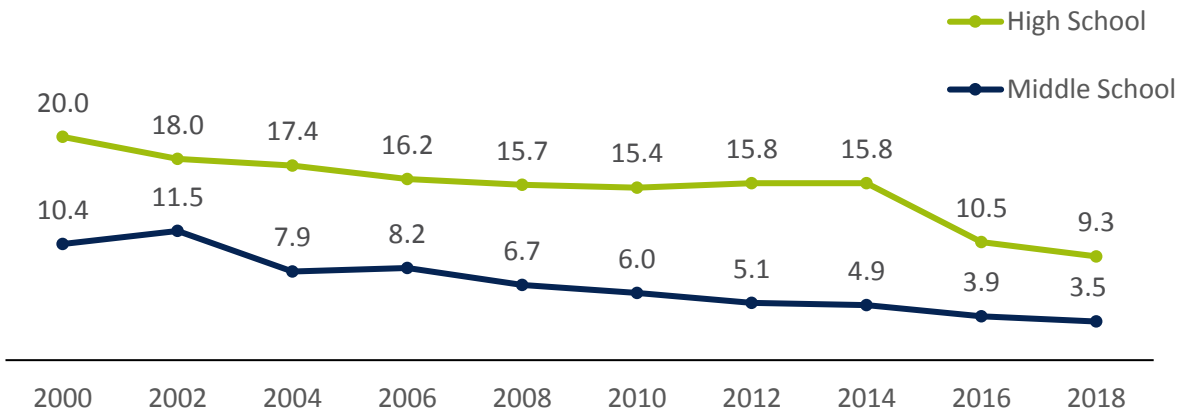
[d] Prior to 2016, ever use of cigars was assessed by the question, "Have you ever tried smoking cigars, cigarillos, or little cigars, even one or two puffs?" In 2016 and 2018, ever use of cigars was assessed by the question, "Have you ever tried smoking cigars, cigarillos, or little cigars, such as Black and Mild, Swisher Sweets, Dutch Masters, White Owl, or Phillies Blunts, even one or two puffs?"

Among high school students in 2018, ever use of cigars was significantly higher among males (21.1%) than females (15.2%) and significantly higher among black students (24.5%) than white students (17.5%) and Hispanic students (16.1%). Among both middle and high school students, ever use of cigars increased significantly with increasing grade level in school.

Trends in Ever Use of Smokeless Tobacco

Between 2000 and 2018, ever use of smokeless tobacco (chewing tobacco, snuff, or dip)[e] declined significantly from 10.4% to 3.5% among middle school students and from 20.0% to 9.3% among high school students. Between 2016 and 2018, ever use of smokeless tobacco declined slightly but not significantly among middle school students and high school students.

Figure 2-19. Percentage of Middle and High School Students Who Have Ever Tried Smokeless Tobacco in Their Lifetime, 2000-2018 IYTS



Ever Use of Smokeless Tobacco by Gender, Race/Ethnicity, and Grade in School

Between 2000 and 2018, ever use of smokeless tobacco declined significantly among middle school students in all demographic groups. Among high school students, ever use of smokeless tobacco fluctuated somewhat between 2000 and 2018 but did significantly decline among all racial/ethnic groups and among males. Ever use of smokeless tobacco declined slightly, but not significantly, among female high school students between 2000 and 2018. Ever use of smokeless tobacco declined between 2016 and 2018 among male students and female students in middle school and high school although these decreases were not significant. Ever use of smokeless tobacco increased slightly, but not significantly, among black middle school and high school students between 2016 and 2018 but slightly declined among students from other race/ethnicities in high school and middle school. (See Appendix Table A-11.)

[e] Between 2000 and 2014, ever use of smokeless tobacco was assessed by the question, "Have you ever used chewing tobacco, snuff, or dip, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen, even just a small amount?" In 2016 and 2018, ever use of smokeless tobacco was assessed by the question, "Have you ever used chewing tobacco, snuff, or dip, such as Grizzly, Skoal, Skoal Bandits, Copenhagen, Redman, Levi Garrett, or Beechnut, even just a small amount?"

Among middle school students in 2018, the prevalence of ever use of smokeless tobacco did not differ significantly by gender, race/ethnicity, or grade level. Among high school students, however, ever use of smokeless tobacco was significantly higher among males (12.5%) than females (5.9%) and significantly higher among white students (10.6%) than Hispanic students (4.8%) and slightly higher than black students (5.2%). Smokeless tobacco use also increased significantly with increasing grade level in school.

Figure 2-20. Percentage of Middle School Students Who Have Ever Used Smokeless Tobacco, 2018 IYTS

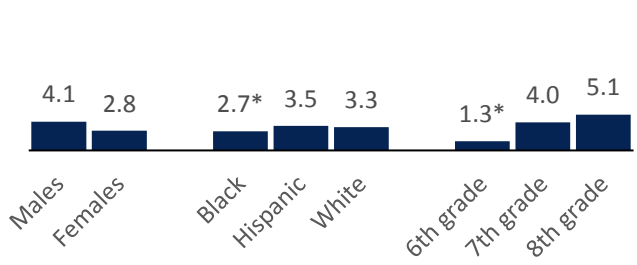
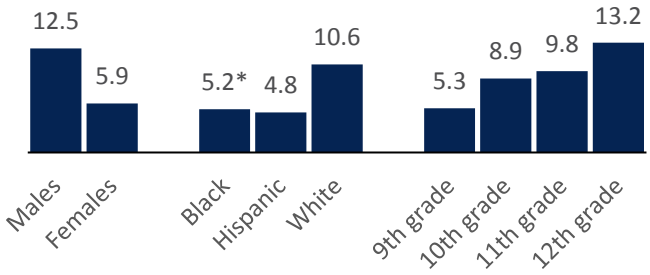


Figure 2-21. Percentage of High School Students Who Have Ever Used Smokeless Tobacco, 2018 IYTS

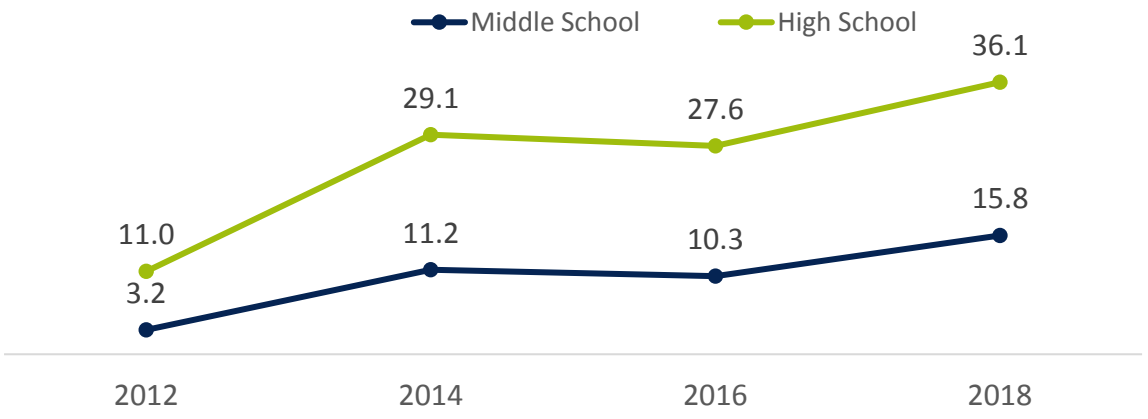


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Trends in Ever Use of E-cigarettes

Between 2012 and 2014, ever use of e-cigarettes[f] increased dramatically, from 3.2% to 11.2% among middle school students and from 11.0% to 29.1% among high school students. After slightly, but not significantly, declining in 2016, ever use of e-cigarettes has made another significant increase. In 2018, more than one in seven middle school students (15.8%) and more than one in three high school students (36.1%) reported ever using e-cigarettes in their lifetime.

Figure 2-22. Percentage of Middle and High School Students Who Have Ever Used Electronic Cigarettes (E-cigarettes), 2012-2018 IYTS



[f] In 2012, ever use of e-cigarettes was assessed by the question, "Which of the following [tobacco] products have you ever tried, even just one time?" and was the 8th response option. Beginning in 2014, lifetime e-cigarette use was assessed by the question, "Electronic cigarettes, or e-cigarettes, are battery-operated devices that simulate smoking a cigarette, but do not involve the burning of tobacco. E-cigarettes often contain nicotine. Have you ever used an electronic cigarette or e-cigarette, even one or two puffs?"

Ever Use of E-cigarettes by Gender, Race/Ethnicity, and Grade in School

Between 2012 and 2018, trends in ever use of e-cigarettes by gender and race/ethnicity mirrored overall trends. Students of both genders and all racial/ethnic groups showed a significant increase in ever use of e-cigarettes between 2012 and 2018. Between 2016 and 2018 ever use of e-cigarettes increased significantly among male and female middle school and high school students. Between 2016 and 2018 ever use of e-cigarettes increased significantly among black and white middle school and high school students. Ever use of e-cigarettes increased slightly but not significantly among Hispanic middle school students between 2016 and 2018, while ever use of e-cigarettes decreased slightly among Hispanic high school students. (See Appendix Table A-13.)

In 2018, the prevalence of ever use of e-cigarettes was comparable among males and females in high school, while males in middle school reported significantly higher rates of ever use of e-cigarettes compared to females. Among middle school students, ever use of e-cigarettes was slightly but not significantly higher among black students (17.3%) than white students (15.8%) or Hispanic students (16.1%). Among high school students, ever use of e-cigarettes was significantly higher among white students (39.6%) than among Hispanic students (31.0%) or black students (25.1%). Among both middle and high school students, ever use of e-cigarettes significantly increased with grade in school.

Figure 2-23. Percentage of Middle School Students Who Have Ever Used E-cigarettes, 2018 IYTS

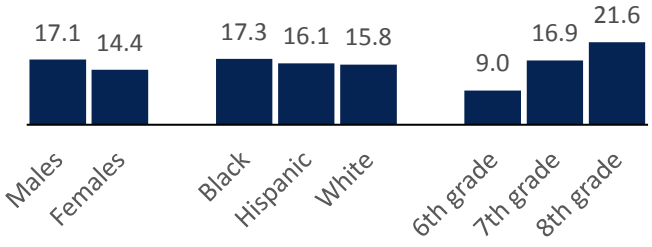
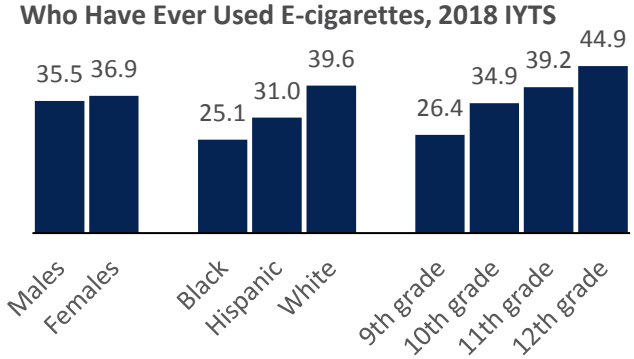


Figure 2-24. Percentage of High School Students Who Have Ever Used E-cigarettes, 2018 IYTS



Ever Use of JUUL by Gender, Race/Ethnicity, and Grade in School

In 2018, JUUL use was captured for the first time in the IYTS. Among middle school students, more than one in 10 (11.0%) reported trying JUUL, and among high school students, more than one-third (36.4%) reported trying JUUL. Use of JUUL did not differ significantly between male and female middle school students (11.9% and 10.1%) or high

Figure 2-25. Percentage of Middle School Students Who Have Ever Used JUUL, 2018 IYTS

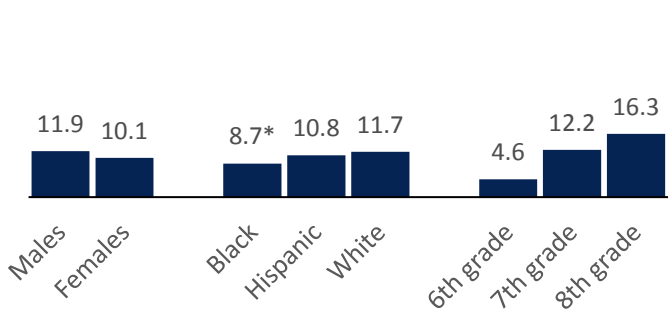
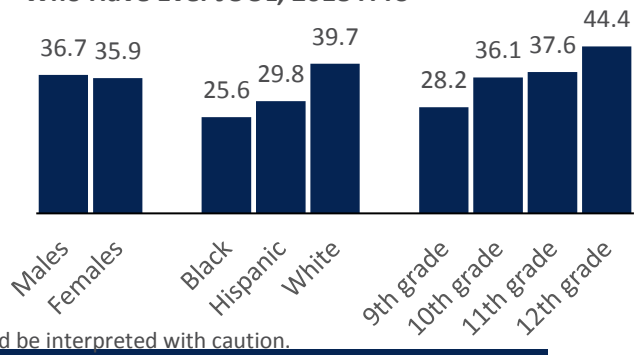


Figure 2-26. Percentage of High School Students Who Have Ever JUUL, 2018 IYTS



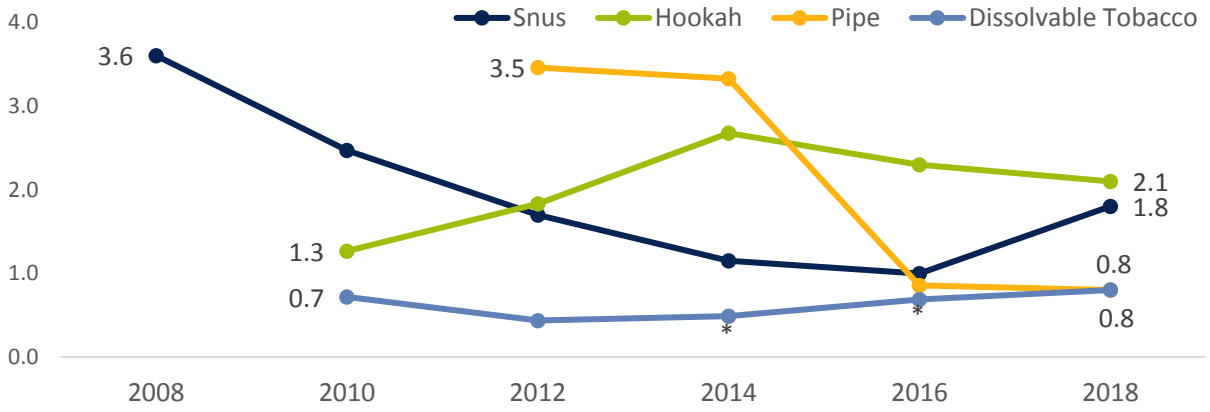
*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

school males and female (36.7% and 35.9%). Ever of use of JUUL did not differ by race/ethnicity among middle school students. Among high school students, ever use of JUUL was significantly higher among white (39.7%) students than black (25.6%) or Hispanic (29.8%) students. Use of JUUL increased sharply with grade in school, more than doubling between 8th grade (16.3%) and 12th grade (44.4%). Ever use of JUUL followed similar trends as ever e-cigarette use across all demographic groups. (See Appendix Table A-15.)

Trends in Ever Use of Other Tobacco Products among Middle School Students

Among middle school students, ever use of snus[g] declined significantly between 2008 (3.6%) and 2018 (1.8%). Similarly, ever use of pipe tobacco[h] declined significantly from 3.5% in 2012 to 0.8% in 2018. In contrast, ever use of hookahs increased among middle school students from 1.3% in 2010 to 2.7% in 2014 and decreased only slightly to 2.1% in 2018. Finally, the prevalence of ever use of dissolvable tobacco remained relatively unchanged, as less than 1% of students reported ever using dissolvable tobacco between 2010 and 2018.

Figure 2-27. Percentage of Middle School Students Who Have Ever Tried Snus, Hookah, Pipe, or Dissolvable Tobacco in Their Lifetime, 2008-2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

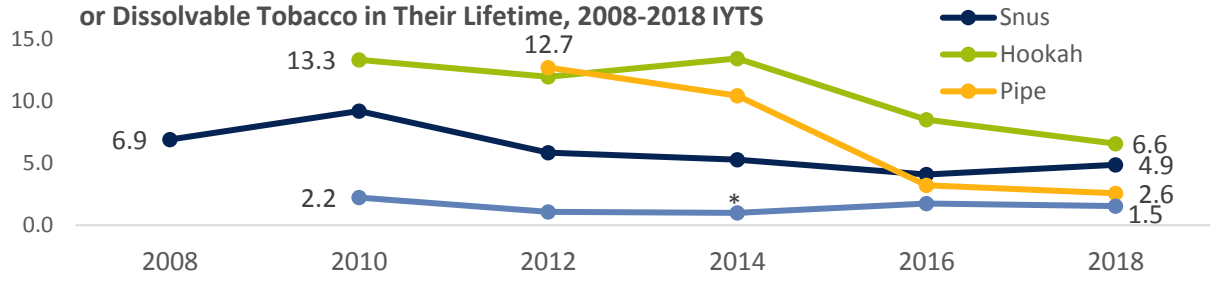
[g] In 2008, ever use of snus was assessed by the question, "Have you ever used Marlboro Snus, Camel Snus, Tourney Snus, or Grand Prix?" In later years, it was assessed by the question, "Which of the following tobacco products have you ever tried, even just one time?" Snus was the 4th response option in 2010, 6th option in 2012 and 2014, and 3rd option in 2016.

[h] In 2012 and 2014, ever use of pipe tobacco was assessed by the question, "Have you ever tried smoking tobacco in a pipe, even one or two puffs?" In 2016, ever use of pipe tobacco was assessed by the question, "Which of the following tobacco products have you ever tried, even just one time?" and was the 2nd response option.

Trends in Ever Use of Other Tobacco Products among High School Students

Among high school students, ever use of snus[i] peaked at 9.2% in 2010 but has declined significantly since then to 4.9% in 2018. Similarly, ever use of hookahs declined significantly from 13.3% in 2010 to 6.6% in 2018, and ever use of pipe tobacco[j] declined significantly from 12.7% in 2012 to 2.6% in 2018. In contrast, ever use of dissolvable tobacco remained relatively unchanged between 2010 (2.2%) and 2018 (1.5%), and dissolvable tobacco was consistently the least commonly used tobacco product.

Figure 2-28. Percentage of High School Students Who Have Ever Tried Snus, Hookah, Pipe, or Dissolvable Tobacco in Their Lifetime, 2008-2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Ever Use of Marijuana by Gender, Race/Ethnicity, and Grade in School

In 2018, use of marijuana was assessed with the IYTS for the first time. Among middle school students, 7.5% reported ever using marijuana and among high school students 29.0% reported ever using marijuana. Among both middle school and high school students, ever use of marijuana did not significantly differ between males and females. Among middle school students, ever use of marijuana was significantly higher among black students (10.8%) than white students (6.5%), while there were no other significant differences between black and Hispanic students or Hispanic and white students. Among high school students, ever use of marijuana was significantly higher among black students (43.5%) than white students (26.0%) and Hispanic students (34.4%), additionally ever use of marijuana was significantly higher among Hispanic students than white students. (See Appendix Table A-16.)

Figure 2-29. Percentage of Middle School Students Who Have Ever Used Marijuana, 2018 IYTS

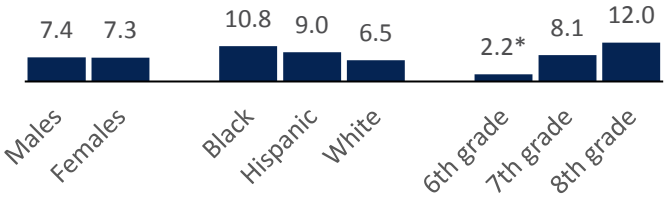
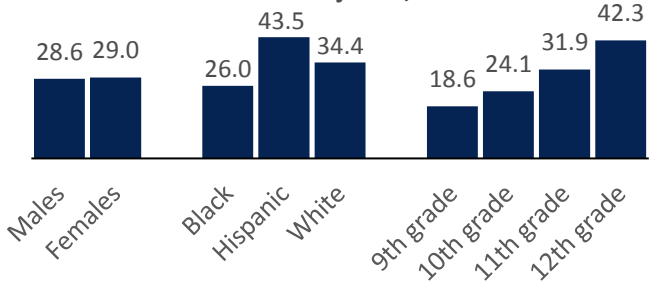


Figure 2-30. Percentage of High School Students Who Have Ever Used Marijuana, 2018 IYTS



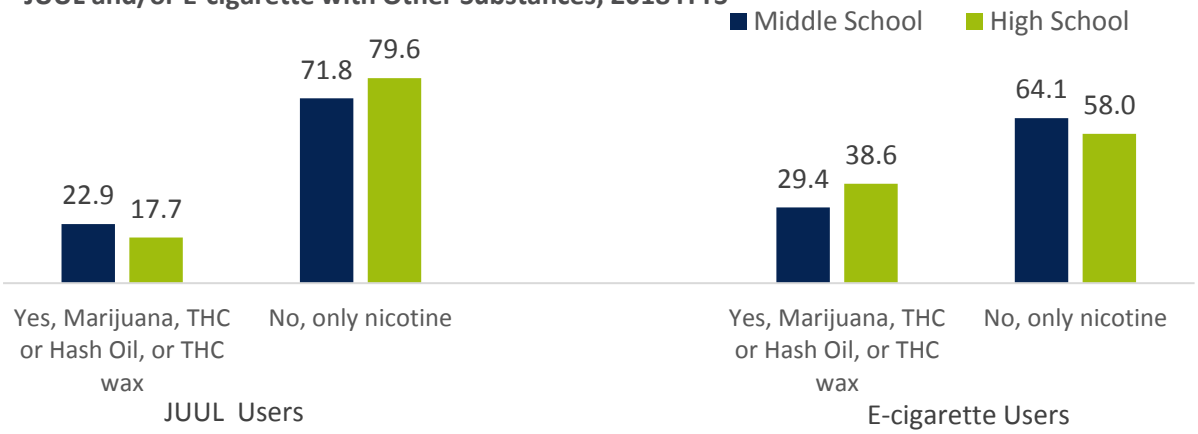
[i] In 2008, ever use of snus was assessed by the question, "Have you ever used Marlboro Snus, Camel Snus, Tourney Snus, or Grand Prix?" In later years, it was assessed by the question, "Which of the following tobacco products have you ever tried, even just one time?" Snus was the 4th response option in 2010, 6th option in 2012 and 2014, and 3rd option in 2016 and 2018.

[j] In 2012 and 2014, ever use of pipe tobacco was assessed by the question, "Have you ever tried smoking tobacco in a pipe, even one or two puffs?" In 2016, ever use of pipe tobacco was assessed by the question, "Which of the following tobacco products have you ever tried, even just one time?" and was the 2nd response option.

Use of JUUL or E-cigarettes with Other Substances

E-cigarettes, including JUUL products contain a removable and refillable cartridge that can easily be filled with a variety of e-liquids or other substances such as marijuana or THC oil or wax. In 2018, students were asked if they ever used other substances besides nicotine and which substances they used, with their JUUL and/or e-cigarettes. Among middle school students who have tried JUUL, more than two in 10 (22.9%) report using JUUL with Marijuana, THC or hash oil or THC wax. Among high school students who have tried a JUUL, about one in 12 (17.7%) report using JUUL with Marijuana, THC or hash oil or THC wax. In contrast, among middle school students who have tried an e-cigarette, nearly 3 in 10 (29.4%) students report having used marijuana, THC or hash oil or THC wax with their e-cigarette, while nearly four in 10 (38.6%) high school students report using marijuana or THC or hash oil or THC wax in an e-cigarette.

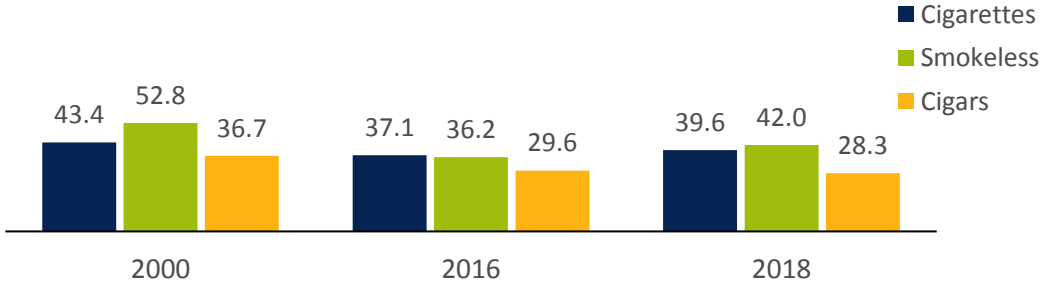
Figure 2-31. Percentage of Middle School and High School Students Who Have Ever Used JUUL and/or E-cigarette with Other Substances, 2018 IYTS



Age of Initiation of Tobacco Products among Middle School Students

Youth often first try tobacco at very young ages.[15] Although preventing youth tobacco use is ideal, delaying initiation may reduce the risk that youth will become regular daily tobacco users and can increase youth tobacco users' likelihood of successfully quitting.[16] Among middle school students in 2018, 39.6% of ever cigarette users, 42.0% of ever smokeless tobacco users, and 28.3% of ever cigar users first tried these products before age 11. While starting before age 11 declined slightly among ever users of these products since 2000, they were not significant.

Figure 2-32. Percentage of Middle School Ever Users of Cigarettes, Smokeless Tobacco, or Cigars Who First Tried the Product before Age 11, 2000, 2016, and 2018 IYTS

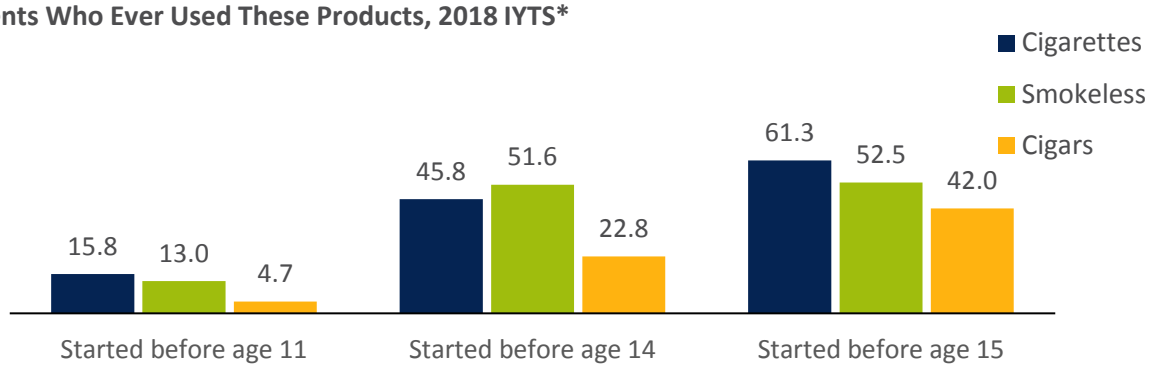


Note: Age of initiation data are presented for only 2000, 2016, and 2018, as data are not available for all interim

Age of Initiation of Tobacco Products among High School Students

Among high school students who have ever used cigarettes, smokeless tobacco, or cigars, a high proportion reported starting by their early to mid-teenage years. In 2018, 15.8% of ever smokers reported starting smoking before age 11; however, nearly half (45.8%) of high school students reported starting before age 14, and a majority (61.3%) reported starting before age 15. Among smokeless tobacco users, about 13.0% started before age 11, 51.6% started before age 14, and 52.5% started before age 15. Compared with cigarette and smokeless tobacco users, a somewhat smaller proportion of students who have ever used cigars reported starting before age 11 (4.7%), 14 (22.8%), or 15 (42.0%).

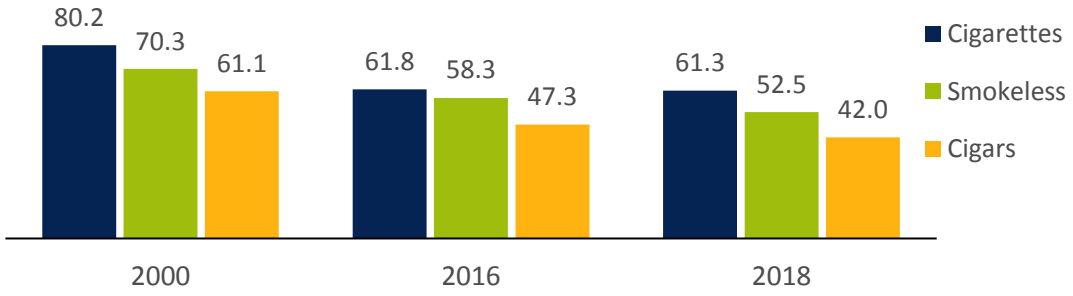
Figure 2-33. Age of Initiation of Cigarettes, Cigars, and Smokeless Tobacco among High School Students Who Ever Used These Products, 2018 IYTS*



*Proportions are cumulative. Estimates of initiation before age 14 or age 15 include all students who reported starting at younger ages.

Overall, the proportions of ever users of cigarettes, smokeless tobacco, and cigars who first tried these products before age 15 have declined significantly since 2000. Between 2000 and 2018, the proportion of ever smokers who started before age 15 dropped from 80.2% to 61.3%. Similarly, initiation of smokeless tobacco before age 15 dropped from 70.3% to 52.5% among ever users, and initiation of cigars before age 15 dropped from 61.1% to 42.0% among ever users.

Figure 2-34. Percentage of High School Ever Users of Cigarettes, Cigars, or Smokeless Tobacco Who First Tried the Product before Age 15, 2000, 2016, and 2018 IYTS

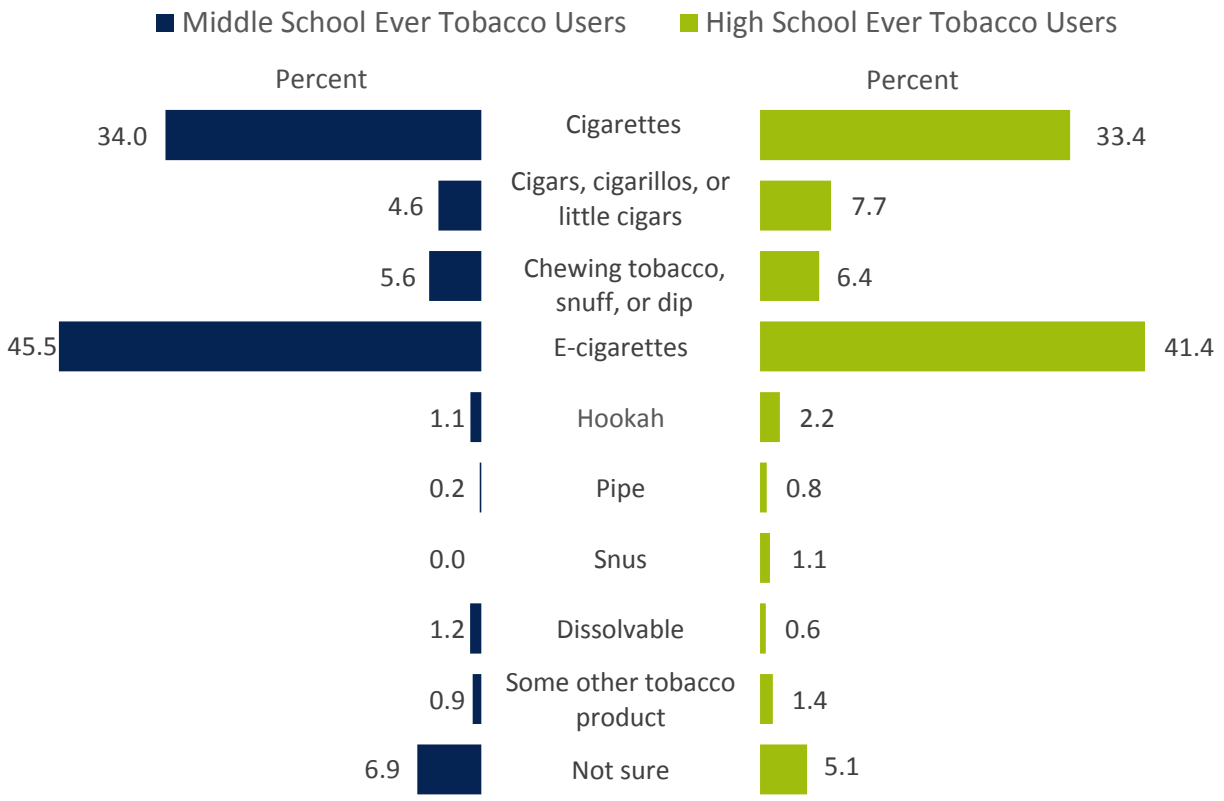


Note: Age of initiation data are presented for only 2000, 2016, and 2018, as data are not available for all interim

First Tobacco Product Ever Used among Ever Tobacco Users

Among youth who reported ever trying a tobacco product, both middle (45.5%) and high school (41.4%) students most commonly reported first trying e-cigarettes. Cigarettes were the next most common product youth reported trying first, with 34.0% of middle school and 33.4% of high school ever tobacco users reporting trying cigarettes before any other tobacco products. Somewhat smaller proportions of students reported first trying cigars (4.6% of middle school and 7.7% of high school ever tobacco users) and smokeless tobacco (5.6% of middle school and 6.4% of high school ever tobacco users). Middle school students also reported using hookah (1.1%), dissolvable (1.2%) and pipe tobacco (0.2%) as their first product, with similar rates shown for high school students (2.2%, 0.6%, and 0.8%).

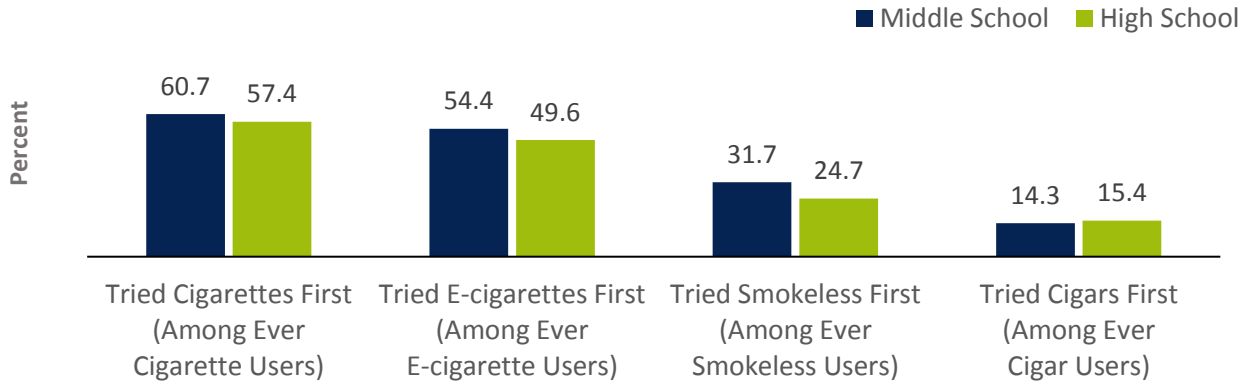
Figure 2-35. First Tobacco Product Tried among Middle and High School Ever Tobacco Users, 2018 IYTS



First Product Ever Used, by Tobacco Product

In 2018, the majority of ever cigarette smokers in both middle school (60.7%) and high school (57.4%) reported that cigarettes were the first tobacco product they ever tried. In contrast, a smaller proportion of ever users of e-cigarettes, smokeless tobacco, or cigars reported trying these products first. In 2018, 54.4% of middle school and 49.6% of high school ever e-cigarette users reported trying e-cigarettes first, and 31.7% of middle school and 24.7% of high school ever smokeless tobacco users tried smokeless tobacco first. Only 14.3% of middle school and 15.4% of high school ever cigar users tried cigars first.

Figure 2-36. First Tobacco Product Tried among Ever Users of Cigarettes, E-cigarettes, Smokeless Tobacco, and Cigars, 2018 IYTS



Summary: Ever Use of Tobacco Products

Prevalence of Ever Tobacco Use

Although ever use of several types of tobacco products has declined among Indiana youth in recent years, in 2018, about one in five middle school students (21.4%) and more than two in five high school students (45.4%) reported ever trying any tobacco product at least once in their lifetime. Youth are also trying marijuana, with nearly one in 12 middle school students (7.5%) and three in 10 high school students (29.0%) reporting ever using marijuana in their lifetime. Cigarettes and e-cigarettes remained the most commonly ever used tobacco products among Indiana youth, followed by cigars and smokeless tobacco. Additionally, youth who ever tried tobacco most commonly reported that e-cigarettes were the first product they tried, and most youth who had ever used tobacco reported first trying tobacco by their early to mid-teen years.

Disparities in Ever Use of Tobacco Products

In 2018, some demographic disparities in ever use of tobacco persisted. Although ever use of any tobacco was fairly comparable among high school students of different races and ethnicities, it was significantly higher among black (27.7%) middle school students than white (20.4%) middle school students. Some demographic disparities also persisted in ever use of particular types of tobacco. In particular, ever use of smokeless tobacco and cigars remained higher among male high school students than female high school students. Ever use of smokeless tobacco also remained higher among white high school students (10.6%) than black (5.2%) and Hispanic students (4.8%). In contrast, ever use of cigars was higher among black high school students (24.5%) than white high school students (17.5%) and higher among both black (12.5%) and Hispanic (7.3%) middle school students than white (5.6%) middle school students. Ever use of tobacco products also increased substantially with grade in school. Disparities in ever use of marijuana were observed among black middle school and high school students. Ever use among black middle school students (10.8%) was significantly higher than white middle school students (6.5%), and significantly higher among black high school students (43.5%) than white (26.0%) and Hispanic (34.4%) high school students.

Trends in Ever Use of Tobacco Products

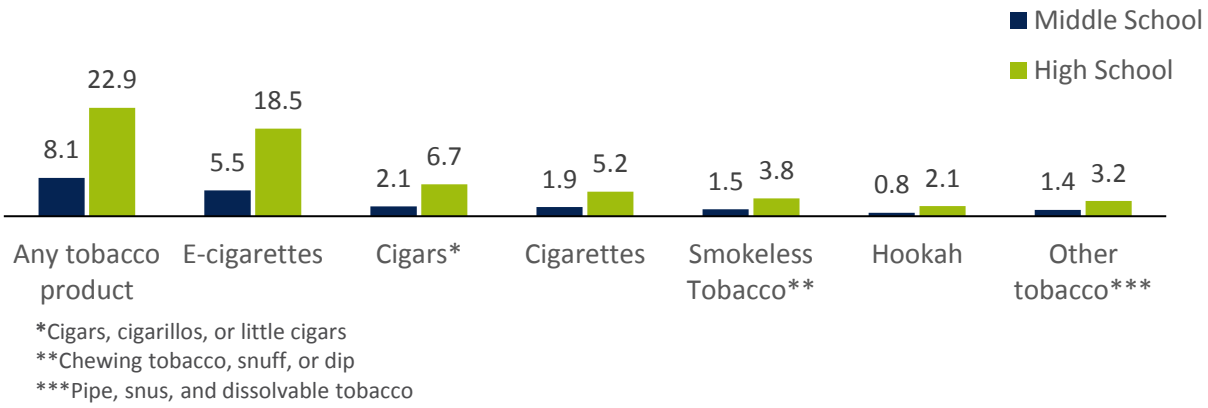
In 2018, there were continued declines in ever use of several types of tobacco products but relatively little change in others. Ever use of combustible tobacco products declined between 2012 and 2018, from 15.9% to 12.7% among middle school students and declined significantly from 42.7% to 29.0% among high school students. In contrast, ever use of noncombustible tobacco rose significantly between 2012 and 2014 and after a small decline in 2016, another significant increase was seen in 2018. This was largely due to the significant increase in ever use of e-cigarettes between 2012 and 2014 and the continued high prevalence of ever use of e-cigarettes in 2016 along with increased popularity of e-cigarettes, such as JUUL, even as ever use of other noncombustible tobacco products declined. Overall, these trends indicate both progress in preventing youth tobacco use and a continued need to further reduce youth tobacco initiation.

3. Current Use of Tobacco Products

Current Use of Tobacco Products

In 2018, about one in 12 middle school students (8.1%) and one in five high school students (22.9%) reported currently using any tobacco product.[k] E-cigarettes were the most commonly used product among youth, with 5.5% of middle school students and 18.5% of high school students reporting current use of e-cigarettes. Among middle school students, the next most commonly used products were cigars (2.1%), cigarettes (1.9%), and smokeless tobacco (1.5%). Among high school students, cigars (6.7%), then cigarettes (5.2%) were the next most commonly used products, followed by smokeless tobacco (3.8%). A smaller proportion of middle and high school students reported current use of hookahs (0.8% and 2.1%, respectively) or other tobacco products including pipes, snus, and dissolvable tobacco.

Figure 3-1. Percentage of Middle and High School Students Who Currently Use Tobacco, 2018 IYTS

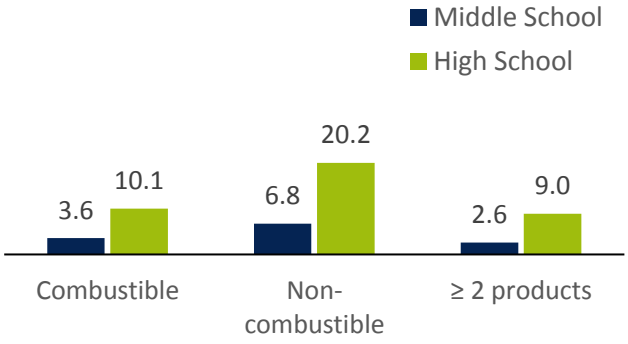


*Cigars, cigarillos, or little cigars
**Chewing tobacco, snuff, or dip
***Pipe, snus, and dissolvable tobacco

Combustible, Noncombustible, and Poly-tobacco Use

In 2018, the prevalence of current noncombustible tobacco use (e-cigarettes, smokeless tobacco, snus, or dissolvable tobacco) was nearly double the prevalence of combustible tobacco use (cigarettes, cigars, pipes, and hookahs) among middle school and high school students. Among middle school students, 3.6% reported currently using any combustible tobacco product, and 6.8% reported using any noncombustible tobacco product. Among high school students, 10.1% of students reported current combustible tobacco use and 20.2% reported noncombustible tobacco use. Additionally, 2.6% of middle school students and 9.0% of high school students reported poly-tobacco use (current use of two or more tobacco products).

Figure 3-2. Percentage of Middle and High School Students Who Report Current Combustible, Non-combustible, and Poly-tobacco Use (≥2 products), 2018 IYTS

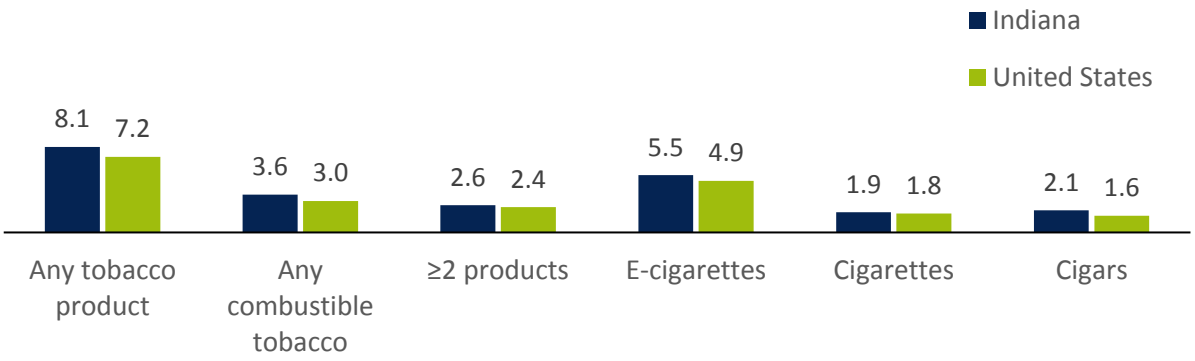


[k] Students were considered to currently use tobacco if they reported use of cigarettes, e-cigarettes, cigars, smokeless tobacco, hookahs, pipes, bidis, snus, or dissolvable tobacco on one or more of the past 30 days. In 2018 current use of bidis was not measured.

Comparison to National Tobacco Use Prevalence[l,m,17]

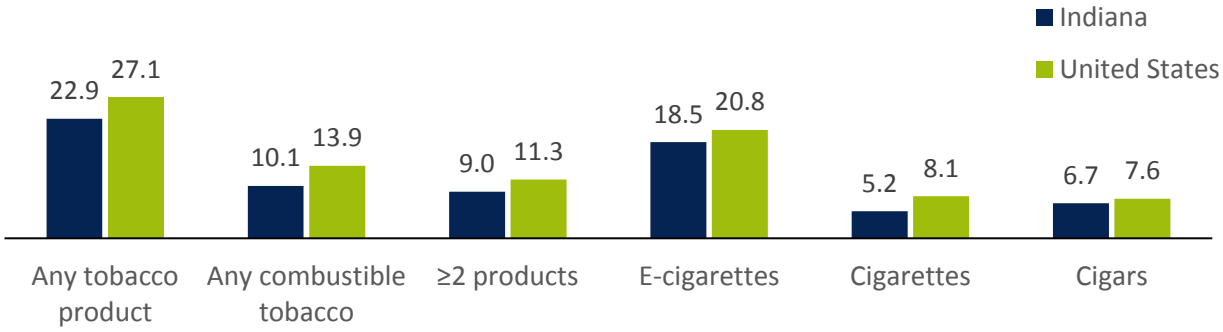
In 2018, current tobacco use prevalence among Indiana middle school students was slightly higher than the prevalence among middle school students nationwide. Among Hoosier middle school students, 8.1% reported currently using any tobacco product, compared with 7.2% of middle school students nationwide. The prevalence of poly-tobacco use (use of two or more products); and use of cigarettes were relatively similar among middle school students in Indiana and nationwide. The prevalence of combustible tobacco use; and use of e-cigarettes and cigars were also slightly higher among Hoosier middle school students than middle school students nationwide (Figure 3-3).

Figure 3-3. Percentage of Middle School Students Who Currently Use Tobacco, Indiana and U.S., 2018



In 2018, the prevalence of any tobacco use overall was lower among Hoosier high school students (22.9%) compared to high school students nationwide (27.1%). The prevalence of combustible tobacco use; poly-tobacco use; and use of e-cigarettes, cigarettes, and cigars were also relatively similar among high school students in Indiana and nationwide. Use of any combustible tobacco, poly-tobacco use, e-cigarette, cigarette use, and cigar use, were slightly lower among Hoosier high school students than youth nationwide. (Figure 3-4).

Figure 3-4. Percentage of High School Students Who Currently Use Tobacco, Indiana and U.S., 2018

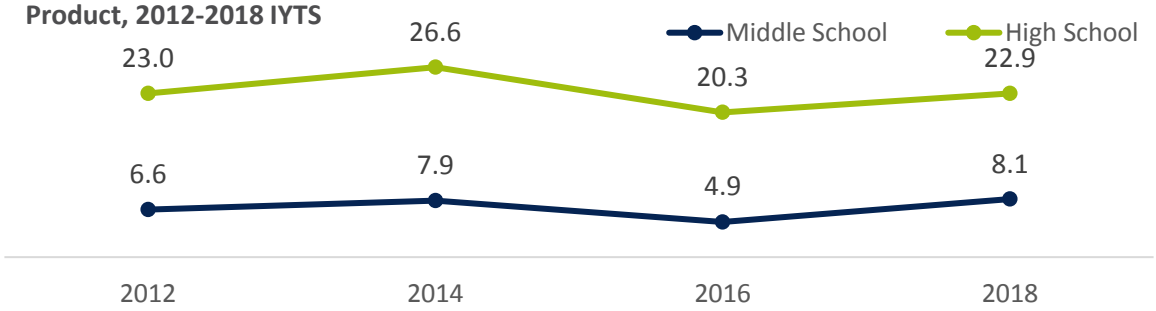


[l] National youth tobacco use rates are from the 2018 National Youth Tobacco Survey (NYTS).
[m] Comparison data are not presented for smokeless tobacco because the NYTS measure of smokeless tobacco included chewing tobacco, snuff, dip, snus, and dissolvable tobacco, while the IYTS smokeless tobacco measure in this report includes only chewing tobacco, snuff, and dip. Comparison data for hookahs and pipe tobacco are not presented due to very low prevalence rates. Indiana prevalence estimates for these products are presented in Appendix Table A-16.

Trends in Current Use of Any Tobacco Product

Among both middle and high school students, current use of any tobacco product[n] increased slightly between 2012 and 2014, and while there was a decrease in 2016, again rates have increased in 2018. Among middle school students, current tobacco increased slightly but not significantly from 6.6% in 2012 to 8.1% in 2018 and is significantly higher in 2018 than in 2016 (4.9%). Among high school students, current tobacco use in 2018 (22.9%) is similar to the 2012 prevalence (23.0%). Current tobacco use among high school students increased in 2018 compared to 2016 (20.3%) although this was not a significant difference.

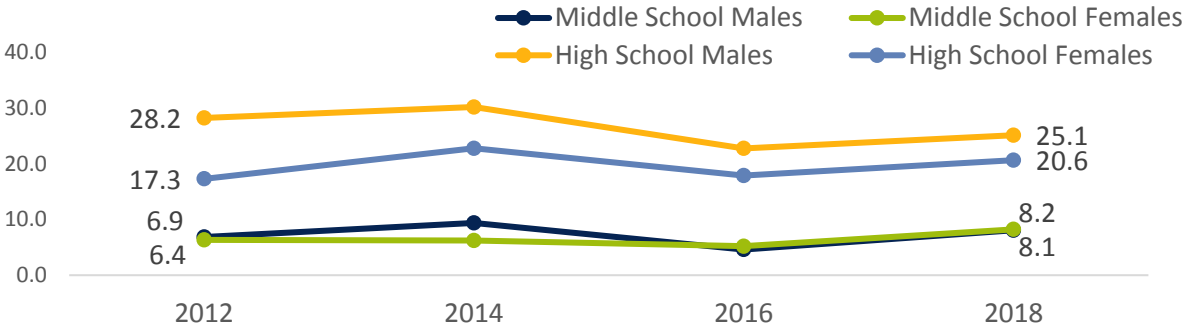
Figure 3-5. Percentage of Middle and High School Students Who Currently Use Any Tobacco Product, 2012-2018 IYTS



Demographic Trends in Use of Any Tobacco Product

Trends in current tobacco use between 2012 and 2018 differed somewhat by gender. Among middle school males, tobacco use fluctuated between 2012 and 2018 with a significant increase between 2016 (4.6%) and 2018 (8.1%). In contrast, current tobacco use declined consistently, but not significantly, among female middle school students to 5.2% in 2016, but again, significantly increased in 2018 (8.2%). Among high school students, current tobacco use declined significantly between 2014 and 2016 among both males (30.2% to 22.8%) and females (22.8% to 17.9%). Between 2016 and 2018 current use of tobacco increased among males (22.8 to 25.1%) and females (17.9% to 20.6%) with more female high school students reporting current use of tobacco in 2018 than in 2012.

Figure 3-6. Percentage of Middle and High School Students Who Currently Use Any Tobacco Product, by Gender, 2012-2018 IYTS



In general, trends in current tobacco use among white, black, and Hispanic students

[n] In 2012, 2014, and 2016 students were considered to currently use tobacco if they reported using cigarettes, e-cigarettes, cigars (including cigarillos or little cigars), smokeless tobacco (chewing tobacco, snuff, or dip), hookahs, pipes, bidis, snus, or dissolvable tobacco on one or more of the past 30 days. In 2018 current use of bidis was not measured.

mirrored overall trends. Tobacco use prevalence did not change significantly in 2018 compared with 2016, however, among any groups except for white middle school students, among whom tobacco use increased significantly from 4.8% in 2016 to 7.7% in 2018. (See Appendix Table A-2.)

Current Use of Any Tobacco Product by Gender, Race/Ethnicity, and Grade, 2018

Among middle school students in 2018, current tobacco use did not differ significantly by gender or race/ethnicity (Figure 3-7). Among high school students, current tobacco use was significantly higher among male students (25.1%) than female students (20.6%) and significantly higher among white students (24.4%) than black students (18.6%). Among both middle and high school students, current tobacco use increased with grade level in school.

Figure 3-7. Percentage of Middle School Students Who Currently Use Any Tobacco Product, by Gender and Race/Ethnicity, 2018 IYTS

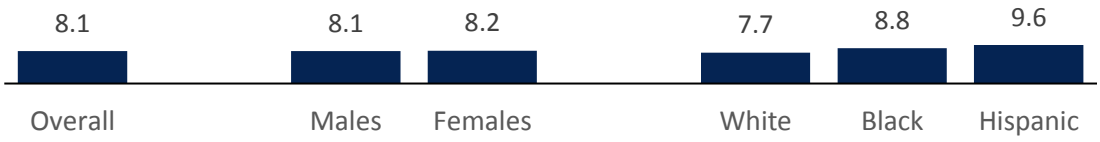


Figure 3-8. Percentage of High School Students Who Currently Use Any Tobacco Product, by Gender and Race/Ethnicity, 2018 IYTS

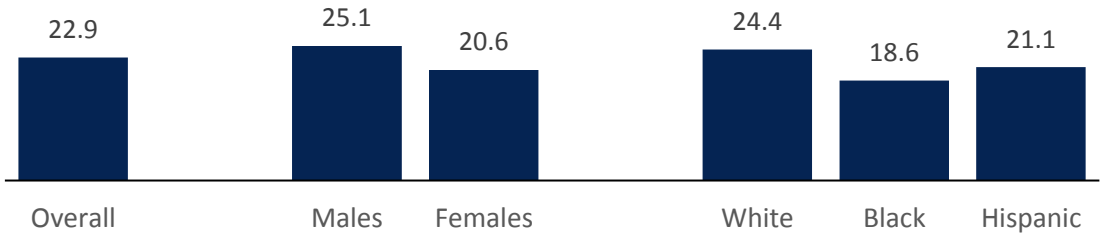
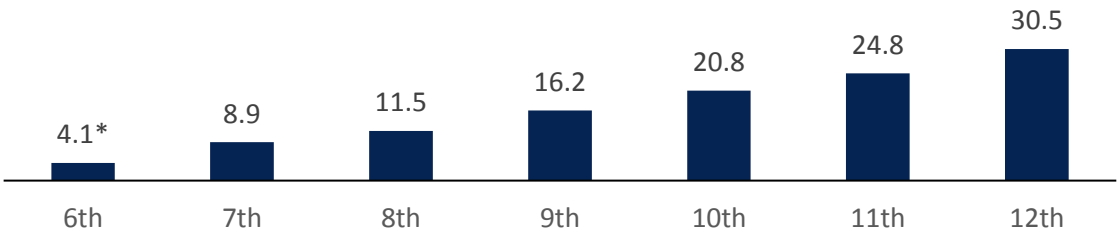


Figure 3-9. Percentage of Middle and High School Students Who Currently Use Any Tobacco Product, by Grade in School, 2018 IYTS



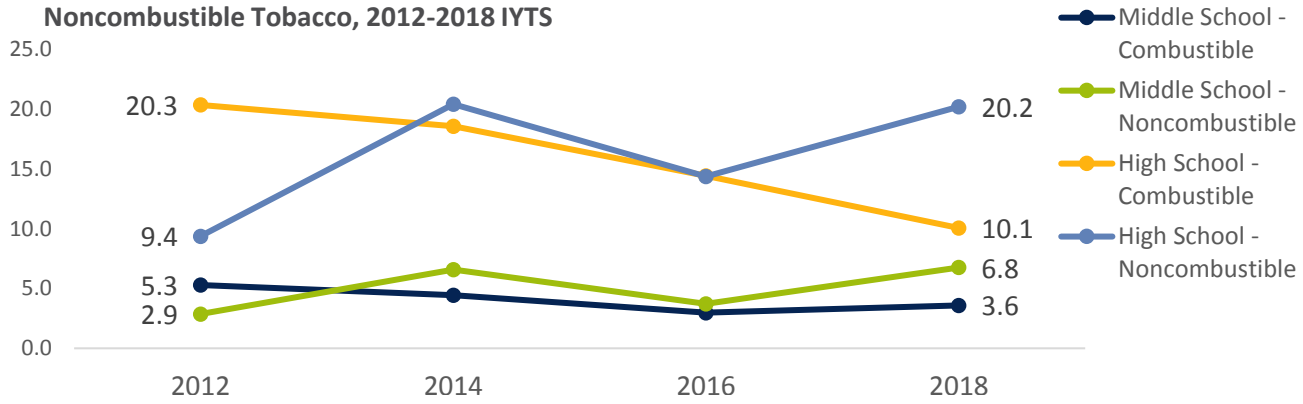
*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Trends in Current Use of Combustible and Noncombustible Tobacco

Historically, combustible tobacco use has been higher than noncombustible tobacco use among Indiana youth.[o] With the continued rise of emerging noncombustible tobacco products such as e-cigarettes, however, noncombustible tobacco use has increased. While combustible tobacco products continue to cause most tobacco-related disease and death in the United States, noncombustible products also pose health risks.[18] Smokeless tobacco is not a safe alternative to combustible tobacco because it causes cancer and nicotine addiction.[19] In addition, although the long-term impact of e-cigarette use on public health remains uncertain, nicotine use can have adverse effects on adolescent brain development.[20] Therefore, tobacco use by youth in any form (whether combustible, smokeless, or electronic) is unsafe.[21]

Between 2012 and 2018, combustible tobacco use declined, from 5.3% to 3.6% among middle school students and declined significantly from 20.3% to 10.1% among high school students. In contrast, noncombustible tobacco use increased significantly again, after a significant increase among both middle and high school students between 2012 and 2014. Between 2016 and 2018 noncombustible use among both middle and high school students increased significantly, from 3.7% to 6.8% among middle school students and 14.4% to 20.2% among high school students. These increases are driven largely by substantial increases in e-cigarette use. Noncombustible tobacco use has also significantly increased between 2012 and 2018 among both middle school students (2.9% to 6.8%) and high school students (9.4% to 20.2%).

Figure 3-10. Percentage of Middle and High School Students Who Currently Use Combustible or Noncombustible Tobacco, 2012-2018 IYTS



Demographic Trends in Combustible and Noncombustible Tobacco Use

In general, trends in combustible and noncombustible tobacco use by gender and race/ethnicity mirrored overall trends. Among middle students, combustible tobacco use has declined since 2012 among both genders and all racial/ethnic groups, but these declines were significant only among males and among Hispanic students. Combustible tobacco use among high school students has decreased since 2012 with significant declines among both genders, white and Hispanic students. In contrast, noncombustible tobacco use has increased significantly among students of both genders and all racial/ethnic groups between 2012 and 2018. Noncombustible tobacco use has increased significantly among both genders, white and black high school students. (Appendix Tables A-4 and A-6).

[o] Combustible tobacco includes cigarettes, cigars, pipes, bidis, and hookahs. In 2018 current/ever use of bidis was not measured. Noncombustible tobacco includes chewing tobacco, snuff, dip, snus, dissolvable tobacco, and e-cigarettes.

Combustible Tobacco Use by Gender, Race/Ethnicity, and Grade in School

Among middle school students in 2018, the prevalence of current combustible tobacco use was slightly higher among females (4.0%) than males (3.2%). Combustible tobacco use was slightly but not significantly higher among black (5.5%) students than Hispanic (4.6%) and white students (3.2%). Among high school students, combustible tobacco use was slightly but not significantly higher among males (10.8%) than females (9.1%) but was significantly higher among black students (12.2%) than Hispanic students (7.5%) There were not any significant differences between other races or ethnicities. Among both middle and high school students, combustible tobacco use generally increased with grade level.

Figure 3-11. Percentage of Middle School Students Who Currently Use Combustible Tobacco, 2018 IYTS

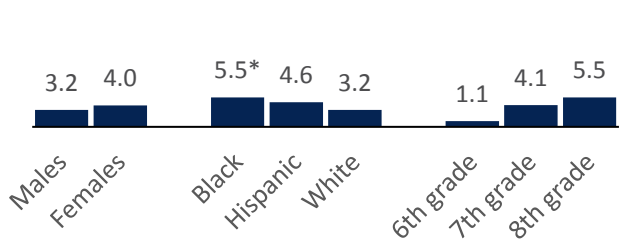
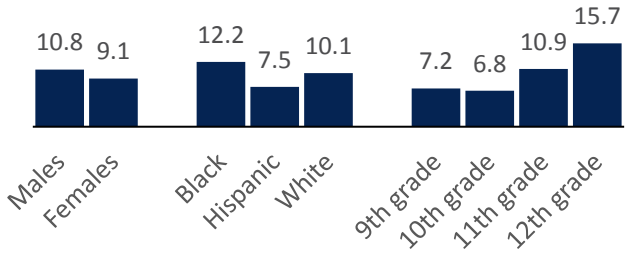


Figure 3-12. Percentage of High School Students Who Currently Use Combustible Tobacco, 2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Noncombustible Tobacco Use by Gender, Race/Ethnicity, and Grade in School

Among middle school students in 2018, noncombustible tobacco use was similar among males (7.1%) and females (6.4%). Although Hispanic and white middle school students were slightly more likely to report current noncombustible tobacco use (7.6% and 6.6%, respectively) than black students (5.2%), these differences were not statistically significant. Among high school students, noncombustible tobacco use was significantly higher among males (22.2%) than females (18.2%) and significantly higher among Hispanic (22.6%) and white (18.2%) students than black students (11.4%). Additionally, noncombustible tobacco use tended to increase with grade in school.

Figure 3-13. Percentage of Middle School Students Who Currently Use Noncombustible Tobacco, 2018 IYTS

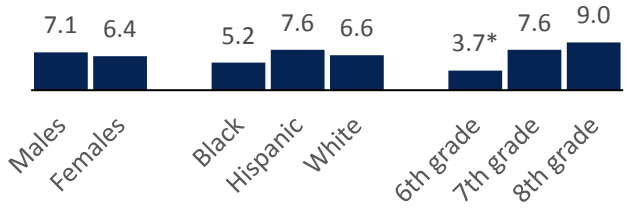
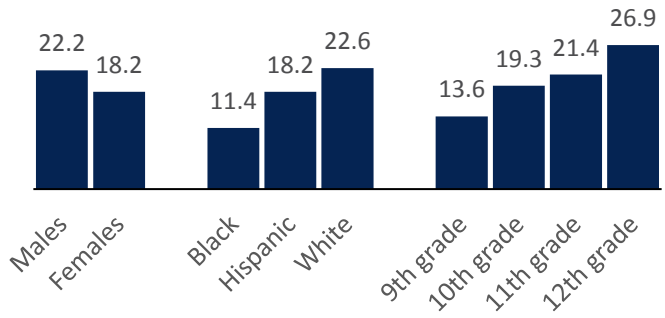


Figure 3-14. Percentage of High School Students Who Currently Use Noncombustible Tobacco, 2018 IYTS

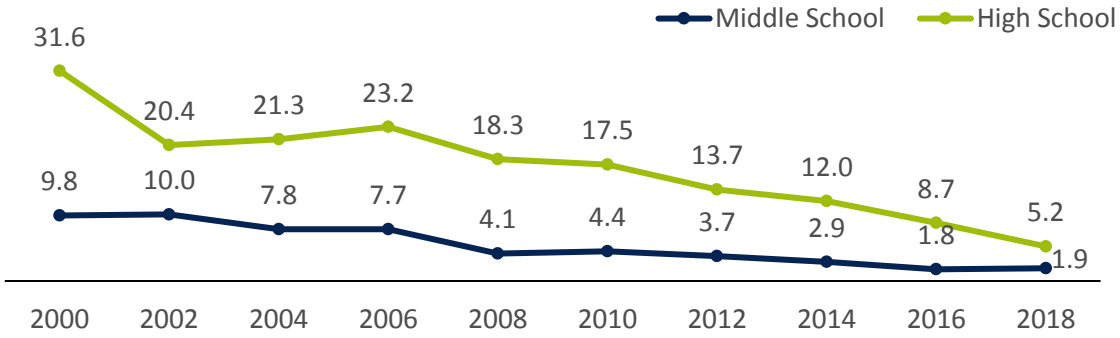


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Trends in Current Cigarette Smoking

Current cigarette smoking has declined significantly among both middle and high school students in Indiana since 2000. Between 2000 and 2018, the prevalence of current smoking among middle school students dropped from 9.8% to 1.9%, an 81% decline. Similarly, current smoking among high school students dropped by 84%, from 31.6% in 2000 to 5.2% in 2018. The prevalence of current smoking in 2018 was also slightly but not significantly higher than in 2016 among middle school students while current smoking was significantly lower in 2018 than 2016 among high school students.

Figure 3-15. Percentage of Middle and High School Students Who Currently Smoke Cigarettes, 2000-2018 IYTS



Current Smoking by Gender, Race/Ethnicity, and Grade in School

Between 2000 and 2018, the prevalence of current smoking declined significantly among students of both genders and all racial/ethnic groups in both middle and high school. (See Appendix Table A-8.) In 2018, current smoking prevalence was comparable among male (1.6%) and female (2.1%) middle school students and was significantly higher among Hispanic middle school students (2.8%) than black students (1.0%).There were not any significant differences between white (1.9%) and black students or white and Hispanic students in 2018. Among high school students, current smoking was comparable among males (5.6%) and females (4.7%) but significantly lower among Hispanic (3.3%) than white (5.8%) high school students. Current smoking was slightly, but not significantly, lower among black (2.9%) high school students than white students. Current smoking also increased dramatically with grade level. (See Appendix Table A-8.)

Figure 3-16. Percentage of Middle School Students Who Currently Smoke Cigarettes, 2018 IYTS

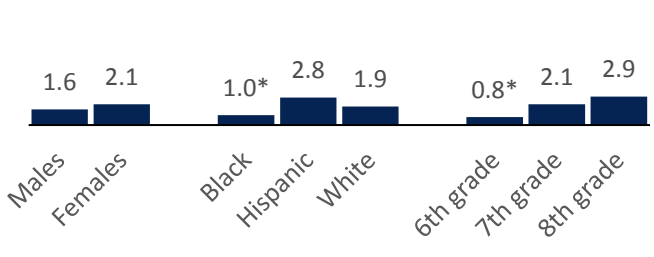
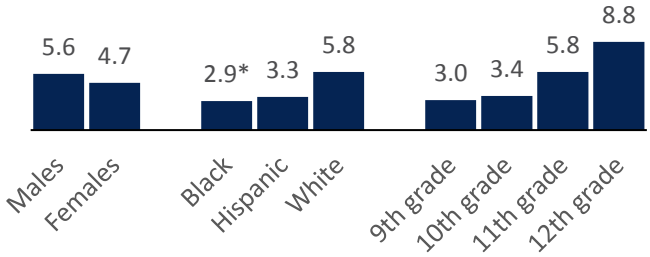


Figure 3-17. Percentage of High School Students Who Currently Smoke Cigarettes, 2018 IYTS

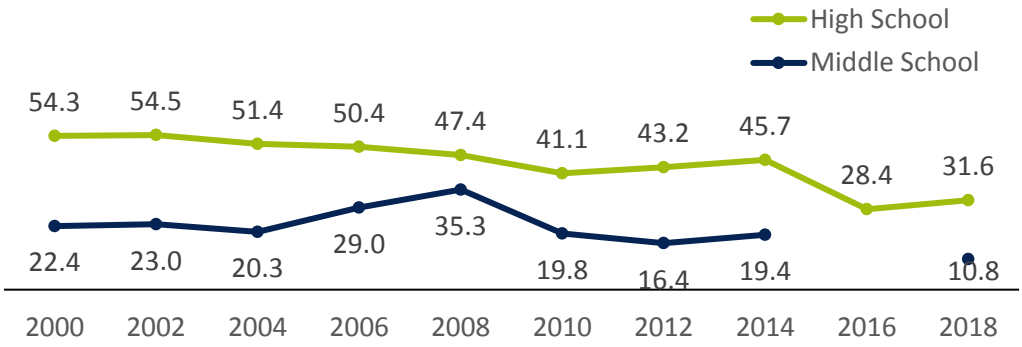


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Frequent Smoking among Middle and High School Students

Frequent smoking (smoking on 20 or more of the past 30 days) suggests that youth may be particularly at risk of becoming regular, established smokers.[22] Between 2000 and 2018, the prevalence of frequent smoking declined significantly, from 2.2% to 0.2% among middle school students and from 17.1% to 1.6% among high school students. While this is partially due to declines in youth smoking overall, frequent smoking also has declined among youth who currently smoke. Between 2000 and 2018, the proportion of high school smokers who frequently smoke declined significantly from 54.3% to 31.6% and declined slightly but not significantly among middle school smokers who frequently smoke from 22.4% to 10.8%.

Figure 3-18. Percentage of Middle and High School Current Smokers Who Frequently Smoke Cigarettes, 2000-2018 IYTS

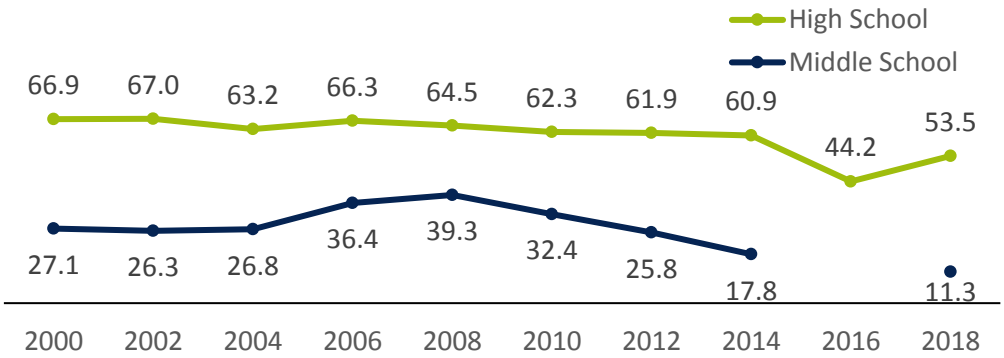


Data for middle school students are not reported in 2016 due to insufficient sample size (n<50).

Lifetime Number of Cigarettes Smoked

Youth who smoke greater quantities of cigarettes might be more likely to become regular, established smokers.[23] Prior to 2016, the proportion of high school smokers who had smoked 100 cigarettes or more (five or more packs of cigarettes) in their lifetime had remained above 60%. In 2018 the proportion of high school smokers who reported smoking 100 or more cigarettes significantly increased to 53.5% from 44.2% in 2016. Between 2000 and 2014, the proportion of middle school smokers who had smoked 100 or more cigarettes was somewhat lower than among high school students, and it increased to a high of 39.3% in 2008 before decreasing to 11.3% in 2018.

Figure 3-19. Percentage of Middle and High School Current Smokers Who Have Smoked 100 or More Cigarettes in Their Lifetime 2000-2018 IYTS

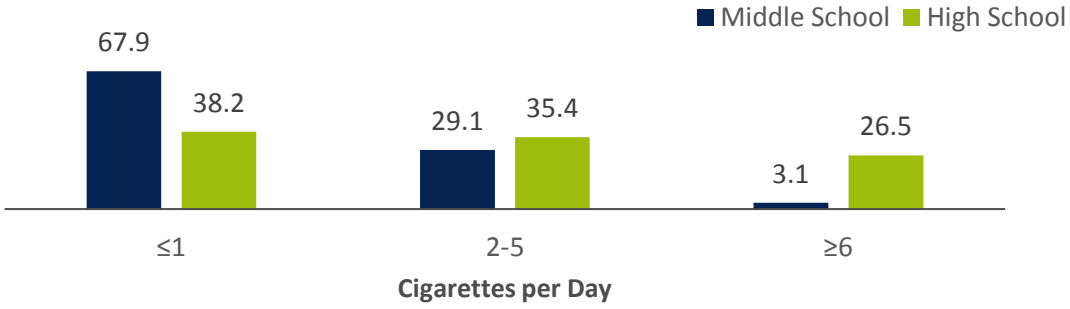


Data for middle school students are not reported in 2016 due to insufficient sample size (n<50).

Number of Cigarettes Smoked per Day

Smoking a greater number of cigarettes per day may be indicative of greater smoking intensity among youth.[24] In 2018, 38.2% of high school current smokers reported smoking one or fewer cigarettes per day, 35.4% reported smoking two to five cigarettes per day, and 26.5% reported smoking six or more cigarettes per day. Among middle school students, 67.9% reported smoking one or fewer cigarettes per day, 29.1% reported smoking two to five cigarettes per day, and 3.1% reported smoking 6 or more cigarettes per day.

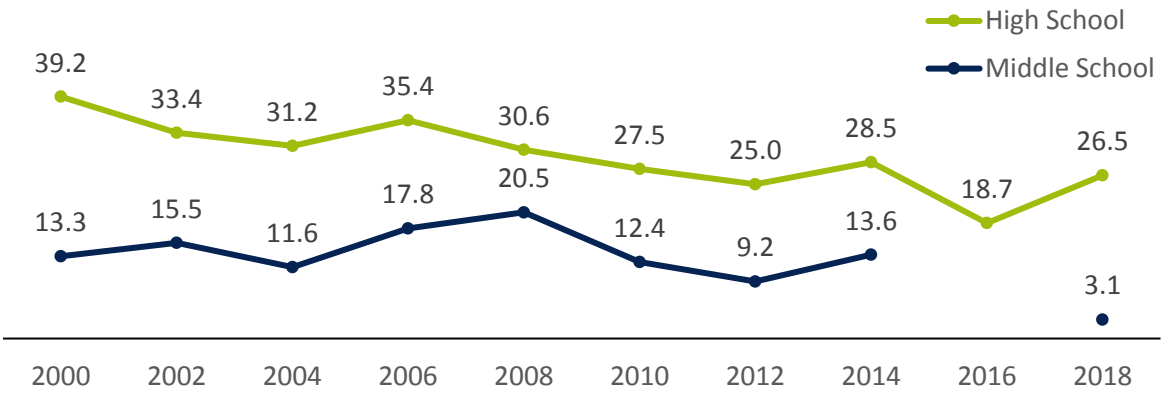
Figure 3-20. Number of Cigarettes Smoked per Day in the Last 30 Days among High School Smokers, 2018 IYTS



Trends in Number of Cigarettes Smoked per Day

Between 2000 and 2018, the proportion of high school smokers who smoked six or more cigarettes per day declined significantly from 39.2% in 2000 to 26.5% in 2018. The proportion of middle school smokers who smoked six or more cigarettes per day was generally lower than among high school smokers. Between 2000 and 2018, the proportion of middle school smokers who smoked six or more cigarettes per day fluctuated somewhat and significantly decreased in 2018.

Figure 3-21. Percentage of Middle and High School Current Smokers Who Smoke Six or More Cigarettes per Day, 2000-2018 IYTS

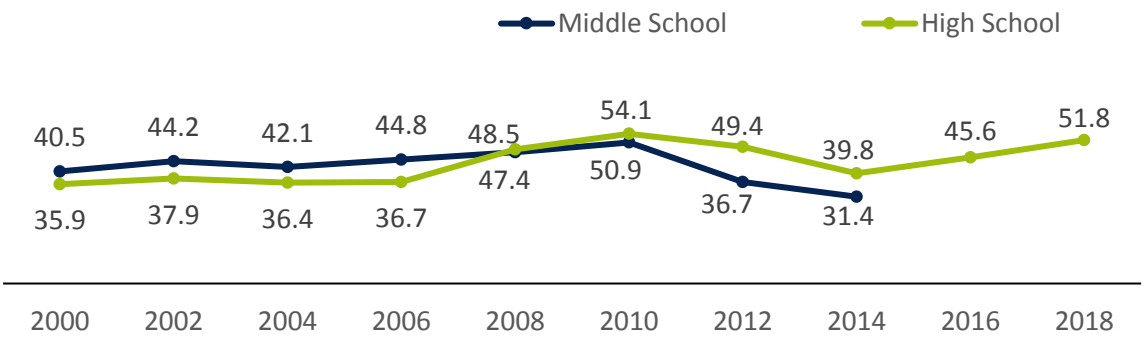


Data for middle school students are not reported in 2016 due to insufficient sample size (n<50).

Current Use of Menthol Cigarettes

Menthol cigarettes may appeal to youth as a "starter" tobacco product because the menthol flavor can lessen the harshness of tobacco smoke.[25] Overall, the proportion of high school smokers who usually smoke menthol cigarettes increased significantly between 2000 (35.9%) and 2018 (51.8%).[p] Among middle school smokers, menthol cigarette use increased between 2000 (40.5%) and 2010 (50.9%) but declined to 31.4% in 2014.

Figure 3-22. Percentage of Middle and High School Current Smokers Who Usually Smoke Menthol Cigarettes, 2000-2018 IYTS

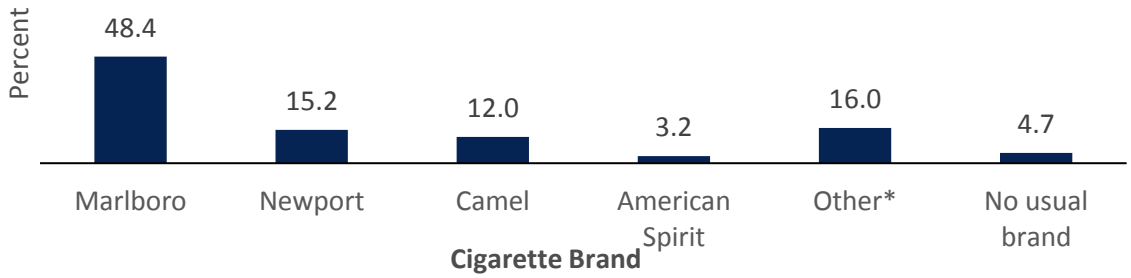


Data for middle school students are not reported in 2016 and 2018 due to insufficient sample

Preferred Cigarette Brands among Current Smokers

Nationwide and in Indiana, the three most heavily advertised cigarette brands, Marlboro, Camel, and Newport, remain the preferred brands of young smokers.[26,27] In 2018, 48.4% of Indiana high school smokers reported usually smoking Marlboro cigarettes. Another 12.0% reported usually smoking Camel cigarettes, and 15.2% reported usually smoking Newport cigarettes. A far smaller proportion of youth reported using other brands such as American Spirit, Kool, or Virginia Slims. Only 4.7% of high school smokers reported that they did not smoke any usual brand.

Figure 3-23. Brand of Cigarettes Usually Smoked among High School Smokers, 2018 IYTS



*GPC, Basic, Doral, Kool, Lucky Strike, Parliament, Virginia Slims, or some other brand not listed in the survey.

Data for middle school students are not reported in 2018 due to insufficient sample size (n<50).

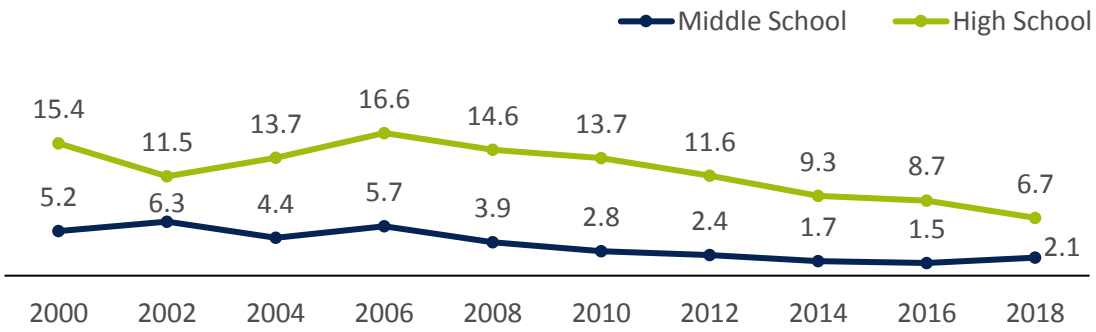
[p] Between 2000 and 2016, there was a statistically significant positive linear trend in menthol cigarette use among high school current smokers, and the point estimate of menthol smoking prevalence in 2018 was significantly higher than in 2000.

Trends in Current Use of Cigars

Historically, cigars (including cigarillos and little cigars) have been exempt from many of the regulations placed on cigarettes. As a result, cigars often are cheaper than cigarettes and continue to be manufactured and sold in ways that appeal to youth, such as in sweet-flavored varieties.[28]

Between 2000 and 2018, current use of cigars declined significantly, from 5.2% to 2.1% among middle school students and from 15.4% to 6.7% among high school students. This decline, however, was somewhat smaller than the decline in cigarette smoking. Although the prevalence of cigar smoking has historically been lower than the prevalence of cigarette smoking among Hoosier youth, in 2018, Hoosier high school students and middle school students were about as likely to report currently using cigars as cigarettes (5.2% and 1.9%). Although overall cigar use continued to decline among high school students and increased among middle school students, between 2016 and 2018, the differences were not statistically significant.

Figure 3-24. Percentage of Middle and High School Students Who Currently Smoke Cigars, Cigarillos, or Little Cigars, 2000-2018 IYTS



Current Use of Cigars by Gender, Race/Ethnicity, and Grade in School

Between 2000 and 2018, current use of cigars increased among middle school students of both genders and all racial/ethnic groups while only a significant increase occurred among white students. Among high school students, cigar smoking declined significantly among male, white, and Hispanic students but did not change significantly among female or black students. (See Appendix Table A-10.) In 2018, cigar use was slightly but significantly higher among female middle school students (2.4%) than male students (1.8%). Black middle and high school students also smoked cigars at somewhat higher rates than white students and Hispanic students, but these differences were not statistically significant. Additionally, cigar smoking was significantly higher among high school males (7.8%) than females (5.4%). In general, cigar use increased with grade in school. (See Appendix Table A-10.)

Figure 3-25. Percentage of Middle School Students Who Currently Smoke Cigars, 2018 IYTS

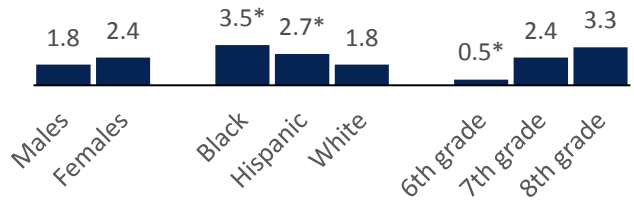
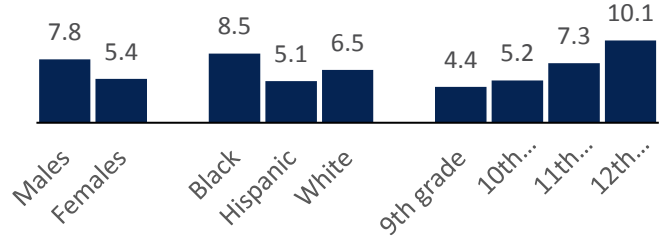


Figure 3-26. Percentage of High School Students Who Currently Smoke Cigars, 2018 IYTS

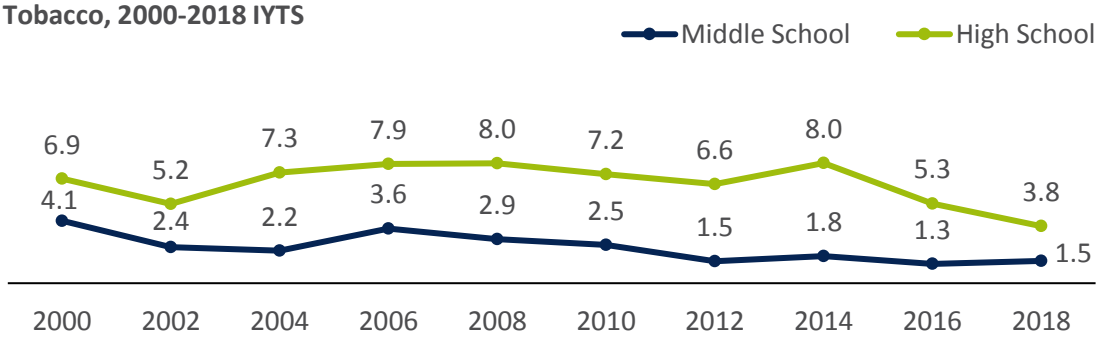


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Trends in Current Use of Smokeless Tobacco

Smokeless tobacco (chewing tobacco, snuff, or dip) poses numerous health risks, including nicotine addiction, cancer, and diseases of the mouth and gums.[29] Between 2000 and 2018, current smokeless tobacco use declined significantly from 4.1% to 1.5% among middle school students and declined significantly among high school students from 6.9% to 3.8%. Smokeless tobacco use increased slightly among middle school students and decreased among high school students between 2016 and 2018, these differences were not statistically significant.

Figure 3-27. Percentage of Middle and High School Students Who Currently Use Smokeless Tobacco, 2000-2018 IYTS



Smokeless Tobacco Use by Gender, Race/Ethnicity, and Grade in School

Trends in smokeless tobacco use among demographic groups were generally consistent with overall smokeless tobacco use trends between 2000 and 2018. Among middle school students, smokeless tobacco use increased slightly, but not significantly, among both genders and all races/ethnicities. Among high school students, the prevalence of smokeless tobacco use significantly decreased among male high school students and white students. Among female, black and Hispanic high school students there was a slight but not significant decline between 2000 and 2018. In 2018, there were no significant differences in the prevalence of smokeless tobacco use among middle school students by gender, race/ethnicity, or grade level. Among high school students, smokeless tobacco use was significantly higher among males (5.7%) than females (1.7%) but there were no significant differences by race/ethnicity. Smokeless tobacco use also increased slightly but not significantly with grade level. (Appendix Tables A-12.)

Figure 3-28. Percentage of Middle School Students Who Currently Use Smokeless Tobacco, 2018 IYTS

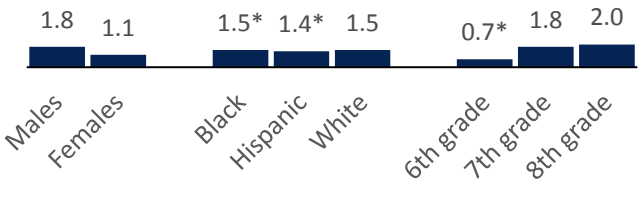
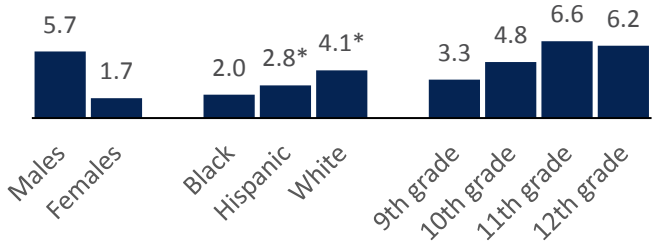


Figure 3-29. Percentage of High School Students Who Currently Use Smokeless Tobacco, 2018 IYTS

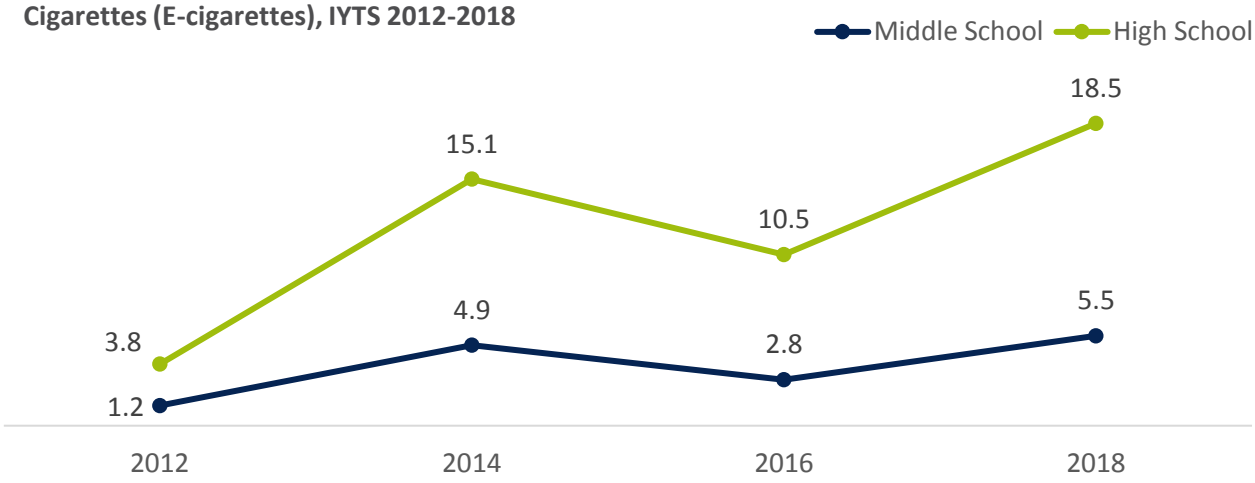


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Current Use of E-cigarettes

Between 2012 and 2014, current use of e-cigarettes[q] increased approximately fourfold among both middle and high school students. While in 2016 there was a decline in e-cigarette use, again in 2018 there was a significant increase. Between 2016 and 2018 current e-cigarette use among both high school students and middle school students nearly doubled with rates for 2018 being 5.5% and 18.5% respectively. Current e-cigarette use has surpassed the high prevalence rates seen in 2014 and remains the most commonly used tobacco product among both high school students and middle school students.

Figure 3-30. Percentage of Middle and High School Students Who Currently Use Electronic Cigarettes (E-cigarettes), IYTS 2012-2018



Current E-cigarette Use by Gender, Race/Ethnicity, and Grade in School

Trends in current e-cigarette use among demographic groups were generally consistent with overall e-cigarette use trends between 2016 and 2018. Among both middle and high school students, e-cigarette use increased significantly among both genders and all racial/ethnic groups between 2012 and 2014. After declining in 2016, current e-cigarette use in 2018 is significantly higher among both genders and all races/ethnicities for both middle school and high school students compared to 2012. (See Appendix Table A-14.)

Among middle school students in 2018, e-cigarette use was slightly, but not significantly, higher among Hispanic students (6.7%) than black students (3.4%). There were not any significant differences in current use of e-cigarettes among either gender or any race/ethnicities among middle school students. Among high school students e-cigarette use was significantly higher among male students (20.0%) than female students (17.0%). E-cigarette use was significantly higher among white (20.9%) and Hispanic (16.7%) high school students than black students (9.4%), while there was not a significant difference among Hispanic and white high school students. Among both middle and high school students, e-cigarette use significantly increased with grade level. (Appendix Tables A-14.)

[q] In 2012, current e-cigarette use was assessed by the question, "Which of the following products have you ever tried, even just one time?" and was the 8th response option. Beginning in 2014, current e-cigarette use was assessed by the question, "During the past 30 days, on how many days did you use electronic cigarettes?"

Figure 3-31. Percentage of Middle School Students Who Currently Use E-cigarettes, 2018 IYTS

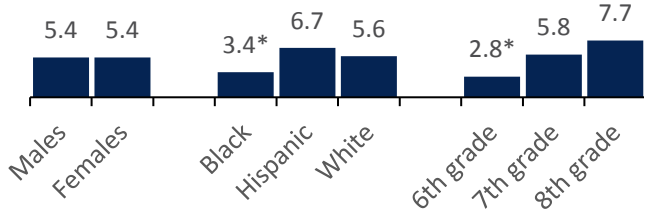
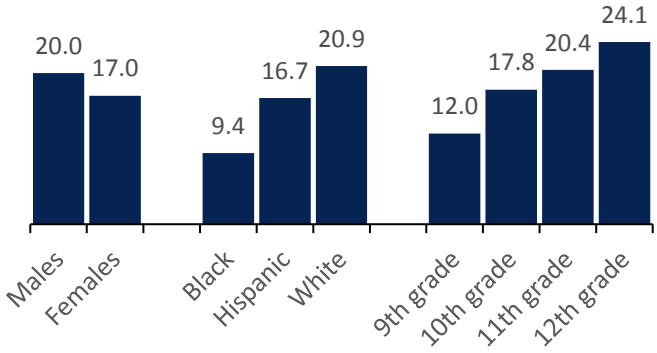


Figure 3-32. Percentage of High School Students Who Currently Use E-cigarettes, 2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Current Use of JUUL by Gender, Race/Ethnicity, and Grade in School

In 2018 more than 1 in 20 middle school students (6.0%) and nearly one in four high school students (24.2%) reported current use of JUUL. Current use of JUUL did not differ significantly by gender among high school or middle school students. Additionally there were no significant differences by race/ethnicity among middle school students who reported currently using JUUL. Current JUUL use was significantly higher among white (26.8%) high school students than black (13.9%) or Hispanic (19.0%) high school students. Current use of JUUL significantly increased with increasing grade level.

Figure 3-33. Percentage of Middle School Students Who Currently Use JUUL, 2018 IYTS

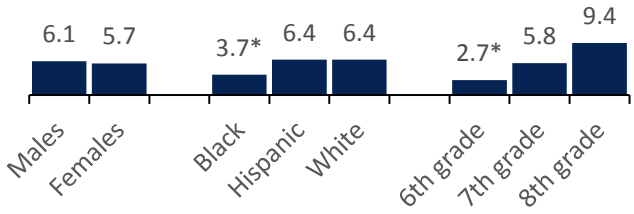
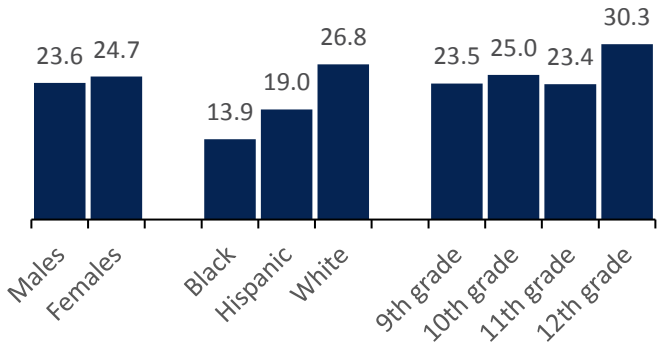


Figure 3-34. Percentage of High School Students Who Currently Use JUUL, 2018 IYTS

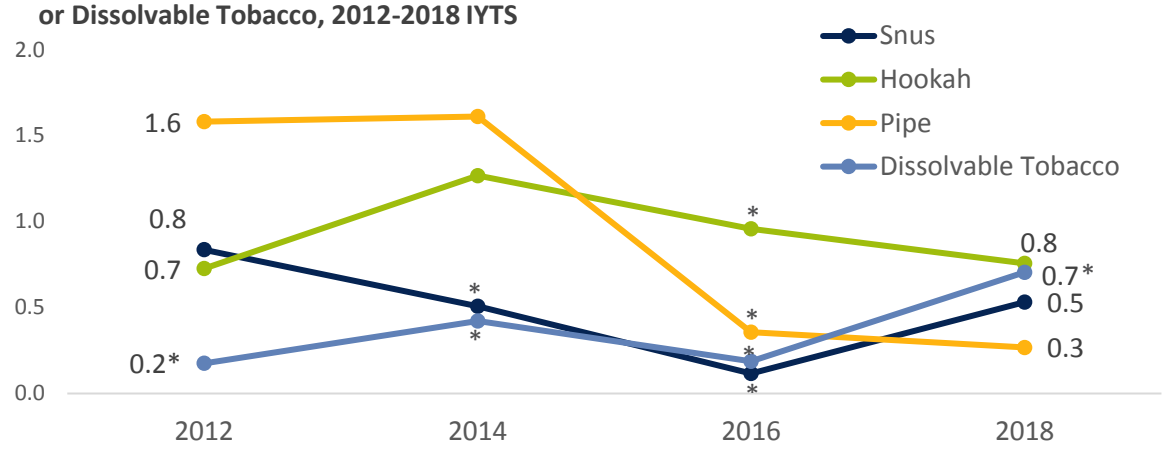


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Current Use of Other Tobacco Products

Between 2012 and 2018, current use of snus and pipe tobacco[r] declined among middle school students, while use of hookahs and dissolvable tobacco remained relatively unchanged. In 2018, less than 1% Hoosier middle school students reported current use of snus, hookah, pipes, or dissolvable tobacco (Figure 3-35).

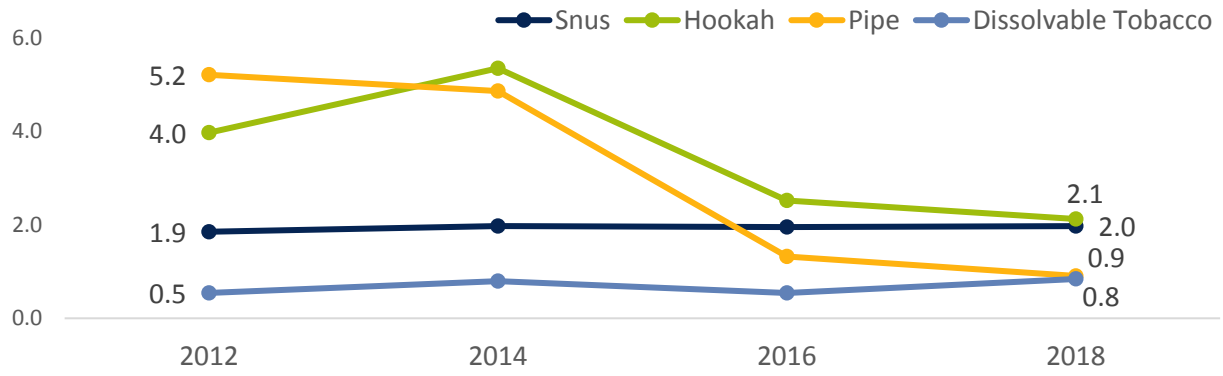
Figure 3-35. Percentage of Middle School Students Who Currently Use Snus, Hookah, Pipe, or Dissolvable Tobacco, 2012-2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Between 2012 and 2018, current use of hookahs and pipe tobacco decreased significantly among high school students, while use of snus and dissolvable tobacco remained relatively unchanged. In 2018, 2.1% of high school students reported current use of hookahs and 2.0% reported current use of snus. Less than 1% of high school students reported current use of pipe tobacco or dissolvable tobacco (Figure 3-36).

Figure 3-36. Percentage of High School Students Who Currently Use Snus, Hookah, Pipe, or Dissolvable Tobacco, 2012-2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

[r] In 2012 and 2014, current use of pipe tobacco was assessed by the question, "During the past 30 days, on how many days did you smoke tobacco in a pipe?" Beginning in 2016, current use of pipe tobacco was assessed by the question, "In the past 30 days, which of the following products have you used on at least one day?" The response option for pipes was listed as "Pipe filled with tobacco (not waterpipe)" and was the second response option.

Current Use of Marijuana by Gender, Race/Ethnicity, and Grade, 2018

In 2018, 4.0% of middle school students and 16.1% of high school students reported currently using marijuana. Among middle school students current marijuana use did not significantly differ by sex or race/ethnicity. Among high school students current marijuana use did not significantly differ by sex. Hispanic (21.2%) and black (24.7%) high school students reported current marijuana use at significantly higher rates than white (13.6%) high school students. Current use of marijuana significantly increased with increasing grade level in school. (Appendix Tables A-16.)

Figure 3-37. Percentage of Middle School Students Who Currently Use Marijuana, 2018 IYTS

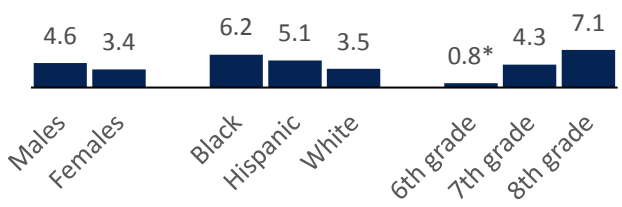
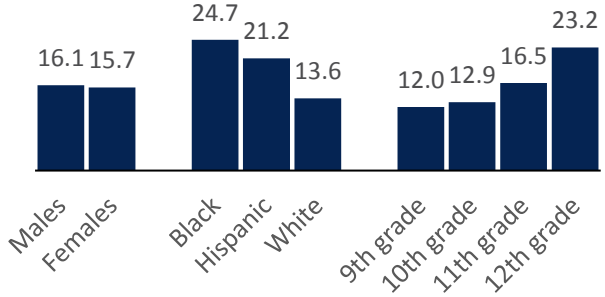


Figure 3-38. Percentage of High School Students Who Currently Use Marijuana, 2018 IYTS

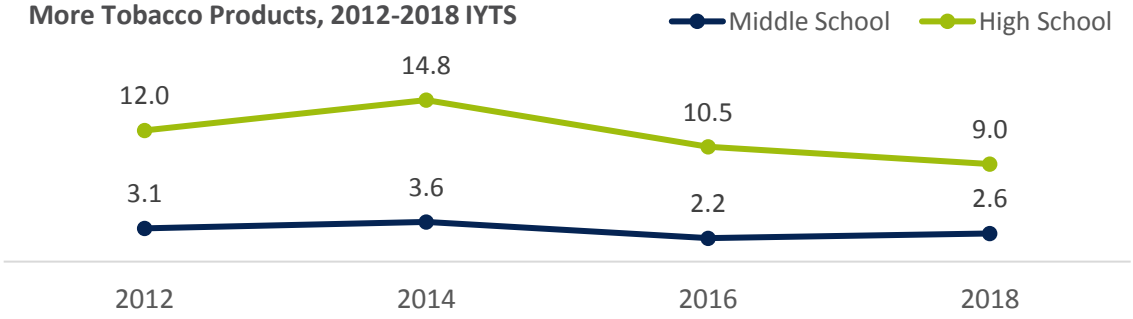


*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Poly-tobacco Use

In 2018, 2.6% of middle school students and 9.0% of high school students reported currently using two or more tobacco products (poly-tobacco use).[s] Poly-tobacco use among high school students decreased significantly in 2018 (9.0%) compared to 2012 (12.0%). There was a slight, but not significant, increase in poly-tobacco use among middle school students between 2016 (2.2%) and 2018 (2.6%), but there was a decrease compared to 2012 (3.1%).

Figure 3-39. Percentage of Middle and High School Students Who Currently Use Two or More Tobacco Products, 2012-2018 IYTS

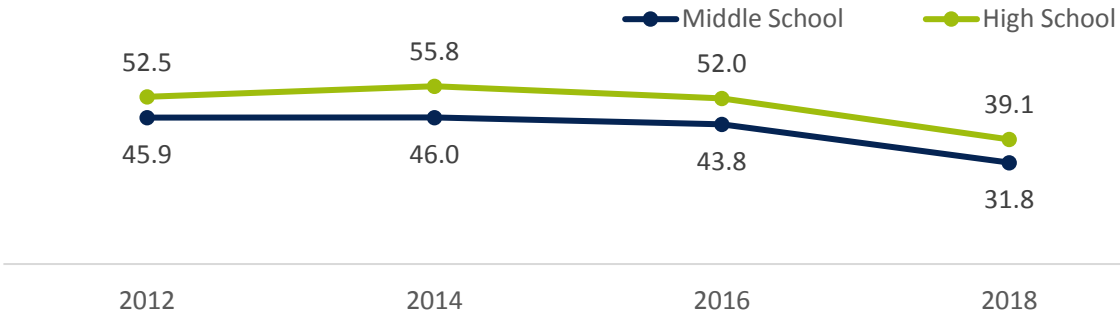


[s] Includes students who reported using two or more of the following products on one or more of the past 30 days: cigarettes, cigars, pipes, hookahs, smokeless tobacco, snus, dissolvable tobacco, or e-cigarettes.

Poly-tobacco Use among Current Tobacco Users

In 2018, nearly one in three middle school tobacco users (31.8%), and nearly two in five high school tobacco users (39.1%), reported currently using two or more tobacco products (poly-tobacco use). There was a significant decrease of poly-tobacco use among both high school and middle school tobacco users between 2012 and 2018.

Figure 3-40. Percentage of Middle and High School Tobacco Users Who Currently Use Two or More Tobacco Products, 2012-2018 IYTS



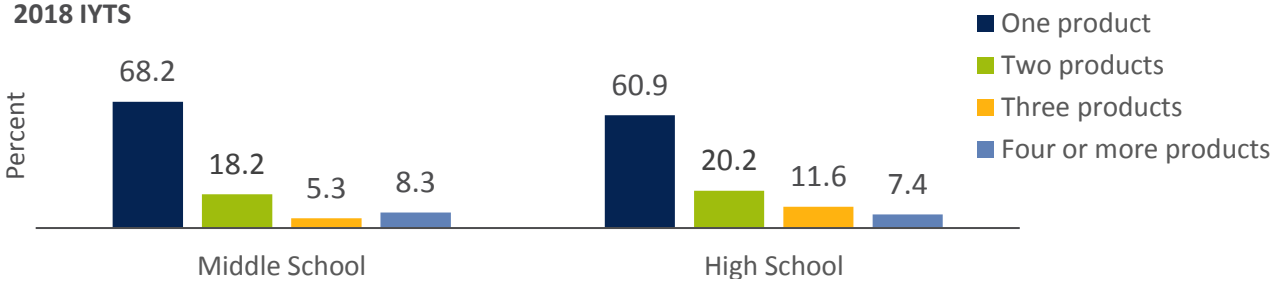
Tobacco Use Patterns among Poly-tobacco Users

Among middle school students reporting poly-tobacco use, the majority (84.7%) reported using both combustible and noncombustible tobacco products. Another 8.0% reported using only combustible products, and 7.2% reported using only noncombustible products. Tobacco use patterns were slightly different among high school poly-tobacco users, as 80.6% reported use of both combustible and noncombustible products, 4.7% reported use of only combustible products, and 14.8% reported use of only noncombustible products.

Number of Tobacco Products Used by Tobacco Users

In 2018, the majority of middle school tobacco users (68.2%) reported using only one tobacco product, and a similar percentage of high school tobacco users (60.9%) reported using only one tobacco product. About one in five middle school tobacco users (18.2%) and high school tobacco users (20.2%) reported using only two tobacco products. A somewhat smaller proportion of tobacco users reported using three tobacco products (5.3% of middle school tobacco users and 11.6% of high school tobacco users) or four or more tobacco products (8.3% of middle school tobacco users and 7.4% of high school tobacco users).

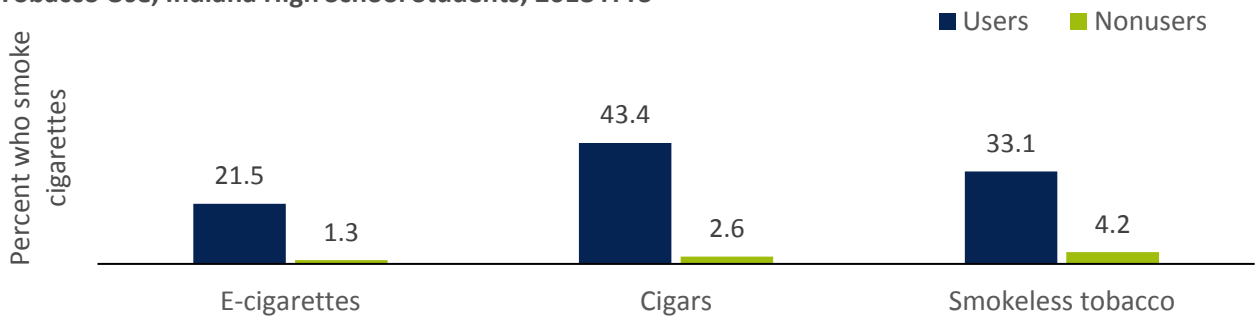
Figure 3-41. Number of Tobacco Products Used among Middle and High School Tobacco Users, 2018 IYTS



Dual Use of Cigarettes and Other Tobacco Products

Use of other tobacco products is strongly associated with cigarette use. Figure 3-44 shows the prevalence of current smoking by current use of the three most commonly used other tobacco products (e-cigarettes, cigars, and smokeless tobacco) among Indiana high school students. In 2018, more than one in five high school e-cigarette (45.8%), two in five cigar (47.9%), and one in three smokeless tobacco (49.9%) users also reported currently smoking cigarettes. In contrast, only 1.3% of e-cigarette nonusers, 2.6% of cigar nonusers, and 4.2% of smokeless tobacco nonusers reported currently smoking cigarettes. Additionally, more than eight in 10 high school cigarette smokers (90.3%) reported currently using at least one other tobacco product.

Figure 3-42. Prevalence of Current Cigarette Smoking, by Current E-cigarette, Cigar, and Smokeless Tobacco Use, Indiana High School Students, 2018 IYTS



Data for middle school students are not reported due to insufficient sample size among cigar and smokeless tobacco users (n<50).

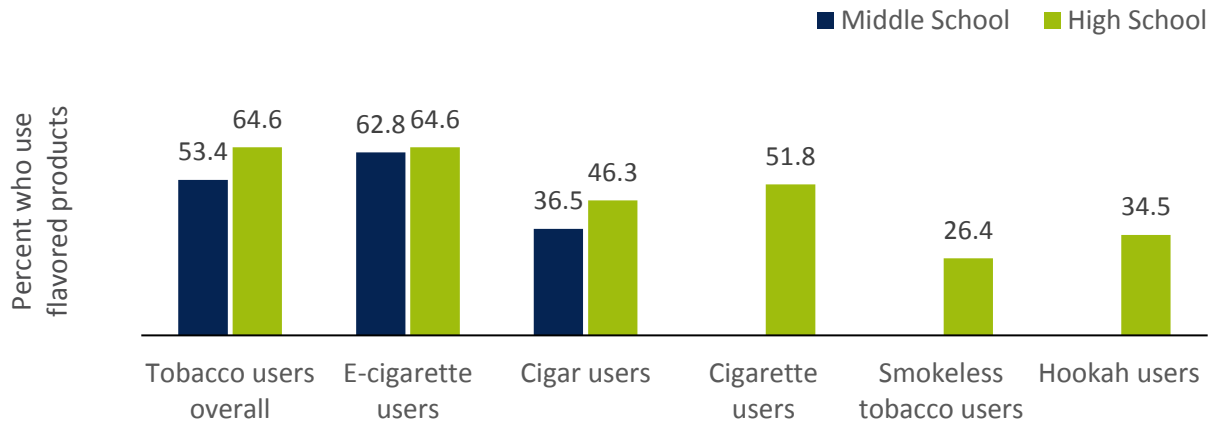
Flavored Tobacco Product Use

Flavored tobacco products have been shown to appeal to youth, and youth commonly cite flavors as a reason for using tobacco products.[30,31] In 2009, the Family Smoking Prevention and Tobacco Control Act prohibited the sale of flavored cigarettes other than menthol cigarettes.[32] Other tobacco products, however, continue to be manufactured and sold in flavored varieties, especially in candy, fruit, and alcohol flavors that appeal to youth.[33]

In 2018, more than half of middle school tobacco users (53.4%) and more than six in 10 high school tobacco users (64.6%) reported currently using any flavored tobacco product.[t] The prevalence of flavored tobacco use by product was as follows:

- **E-cigarettes:** 62.8% of middle school e-cigarette users and 64.6% of high school e-cigarette users used flavored e-cigarettes.
- **Cigars:** Two in three (36.5%) middle school cigar users and more than two in five (46.3%) high school cigar users smoked flavored cigars.
- **Cigarettes:** Just over half (51.8%) of high school cigarette smokers used menthol cigarettes.
- **Smokeless tobacco:** More than a quarter (26.4%) of high school smokeless tobacco users used flavored smokeless tobacco.
- **Hookahs:** More than one in three (34.5%) high school hookah users used flavored hookah tobacco.

Figure 3-43. Prevalence of Flavored Tobacco Use among Current Tobacco Users, Indiana Middle and High School Students, 2018 IYTS



Data for middle school students are not reported for cigarette, smokeless tobacco, or hookah users due to insufficient sample size (n<50). Data on the use of flavored pipe, snus, and dissolvable tobacco are not reported for either middle or high school students due to insufficient sample size (n<50).

[t] Includes use of flavored cigars, smokeless tobacco, e-cigarettes, hookahs, pipes, snus, dissolvable tobacco, or menthol cigarettes. Menthol cigarette use was assessed by the question, "Menthol cigarettes are cigarettes that taste like mint. During the past 30 days, were the cigarettes that you usually smoked menthol?" Other flavored tobacco product use was assessed by the question, "Which of the following tobacco products that you used in the past 30 days were flavored to taste like menthol (mint), alcohol (wine, cognac), candy, fruit, chocolate, or other sweets?" Students could select one or more responses.

Summary: Current Use of Tobacco Products

Overall Tobacco Use Prevalence

In 2018, more than one in five high school students (22.8%) and one in 12 middle school students (8.1%) in Indiana reported currently using any tobacco product. This was slightly lower than nationwide prevalence estimates among high school students (27.1%) and slightly higher than national estimates among middle school students (7.2%) in 2018.[34] E-cigarettes were the most commonly used tobacco product among Indiana middle (5.5%) and high school (18.5%) students in 2018, followed by cigars, cigarettes, and smokeless tobacco. Additionally, about 31.8% of middle school tobacco users (2.6% of middle school students overall) and 39.1% of high school tobacco users (9.0% of high school students overall) reported currently using two or more tobacco products. Among both high school and middle students current use of any tobacco product increased substantially between 2012 and 2014, declined slightly in 2016, but again significantly increased in 2018. Current tobacco use rates among middle school students is higher than it has ever been, while among high school students current tobacco use rates remain below the highest rate seen in 2014. Additionally, nearly one in 20 (4.0%) of middle school students and one in six high school students reported currently using marijuana in 2018.

Trends in Current Tobacco Use

Use of several conventional tobacco products has declined significantly since 2000. Between 2000 and 2018, current use of cigarettes declined 81% among middle school students (from 9.8% to 2.1%) and 84% among high school students (from 31.6% to 5.2%). Use of cigars also has declined significantly among both middle and high school students, although these declines have been slightly smaller than the declines in cigarette use. Additionally, smokeless tobacco use declined significantly among both middle school students and high school students.

In contrast, e-cigarette use increased approximately fourfold between 2012 and 2014 among both middle and high school students. While e-cigarette use prevalence declined significantly between 2014 and 2016, it has again significantly increased, nearly doubling between 2016 and 2018 among both high school and middle school students. Overall, this was consistent with trends in e-cigarette use among youth nationwide.[35]

Demographic Disparities in Current Tobacco Use

In 2018, there were some demographic differences in current use of specific tobacco products. Among middle school students, current smoking was significantly higher among Hispanic students than black students. Among high school students, current cigarette smoking among white students was nearly double the rate among Hispanic students. Current e-cigarette use among white students and Hispanic students was close to double the rate among black students. Current use of marijuana among black and Hispanic high school students was significantly higher than white high students. Among males, current use of e-cigarettes was significantly higher than females, as was current use of smokeless tobacco in contrast to current cigar use which was higher among female high school students than male high school students.

Flavored Product Use

Flavored tobacco products have been shown to appeal to youth, and youth tobacco users commonly cite flavors as a reason for using tobacco products.[36,37] Flavored tobacco use was common among Indiana youth in 2018, with more than half of middle school tobacco users (53.4%) and more than six in 10 high school tobacco users (64.6%) reporting using flavored tobacco products. Among high school students, the majority of e-cigarette (64.6%) and cigarette (51.8%) users reported currently using flavored products. Additionally, just

under half (46.3%) of high school cigar smokers reported usually smoking menthol cigarettes. Almost an equal percentage of middle school (62.8%) and high school (64.6%) e-cigarette users reported using flavored products.

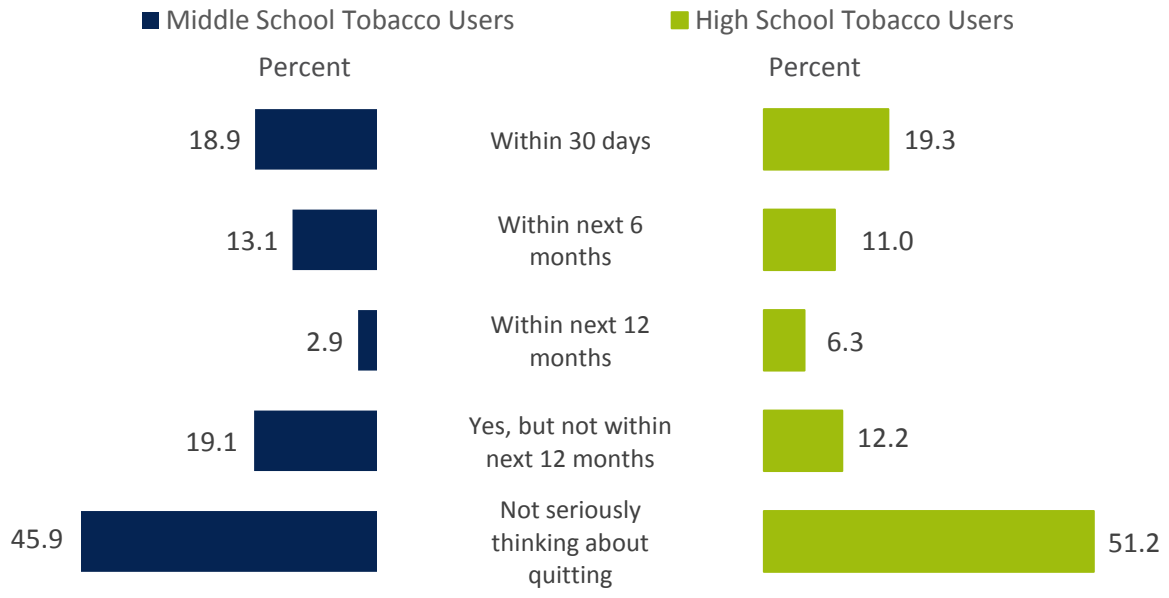
4. Tobacco Cessation

In addition to preventing initiation of tobacco use, promoting cessation among youth who use tobacco is an important component of protecting young people from the harmful health effects of tobacco. This section presents trends in tobacco cessation among Indiana youth who use tobacco, including quit attempts, attitudes toward quitting, and methods used to quit tobacco. It also presents data on health care provider assessment and advice regarding youth tobacco use.

Cessation Intentions among Current Tobacco Users

In 2018, only about 18.9% of middle school tobacco users and 19.3% of high school tobacco users reported that they were seriously thinking about quitting all tobacco within the next 30 days. Another 15.0% of middle school tobacco users and 17.3% of high school tobacco users indicated that they were thinking about quitting in the next 6 to 12 months, while 19.1% of middle school tobacco users and 12.2% of high school tobacco users indicated that they were thinking about quitting, but not within the next 12 months. More than four in 10 middle school tobacco users (45.9%) and more than half of high school tobacco users (51.2%) indicated that they were not seriously thinking about quitting tobacco.

Figure 4-1. Timeframe in which Middle and High School Tobacco Users Are Seriously Thinking about Quitting All Tobacco, 2018 IYTS



Cessation Attempts among Current Tobacco Users

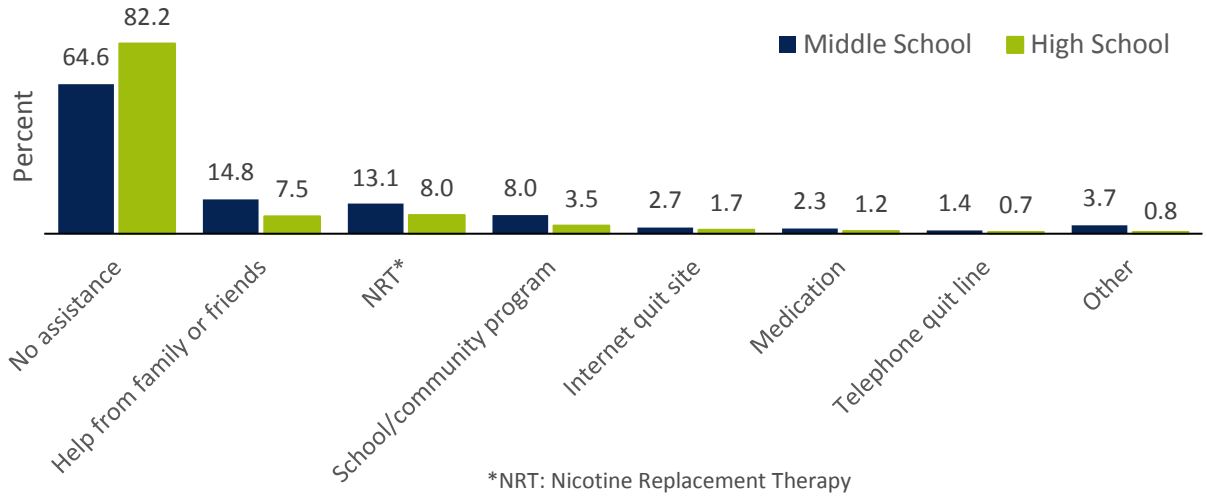
Despite the relatively low proportion of youth tobacco users who indicated that they were considering quitting in the next year, a substantial proportion of middle and high school tobacco users indicated that they had attempted to quit at least once in the past year. In 2018, more than six in 10 middle school tobacco users (64.6%) reported attempting to quit all tobacco in the past year. In contrast, only about half of high school tobacco users (50.4%) reported attempting to quit all tobacco in the past year.

Figure 4-2. Percentage of Middle and High School Tobacco Users Who Attempted to Quit All Tobacco in the Past Year, 2018 IYTS

Cessation Methods

In 2018, use of evidence-based cessation methods was low among youth tobacco users who attempted to quit.[u] Both middle and high school tobacco users (64.6% and 82.2%, respectively) most commonly indicated that they tried to quit on their own/"cold turkey." The next most commonly reported cessation methods were seeking help from family or friends, nicotine replacement such as nicotine gum or patches, and attending school or community cessation programs. A smaller proportion of youth tobacco users reported using a telephone quit line, an Internet quit site, other medications, or other methods to quit tobacco.

Figure 4-3. Methods Used to Quit Tobacco among Middle and High School Tobacco Users Who Attempted to Quit in the Past Year, 2018 IYTS



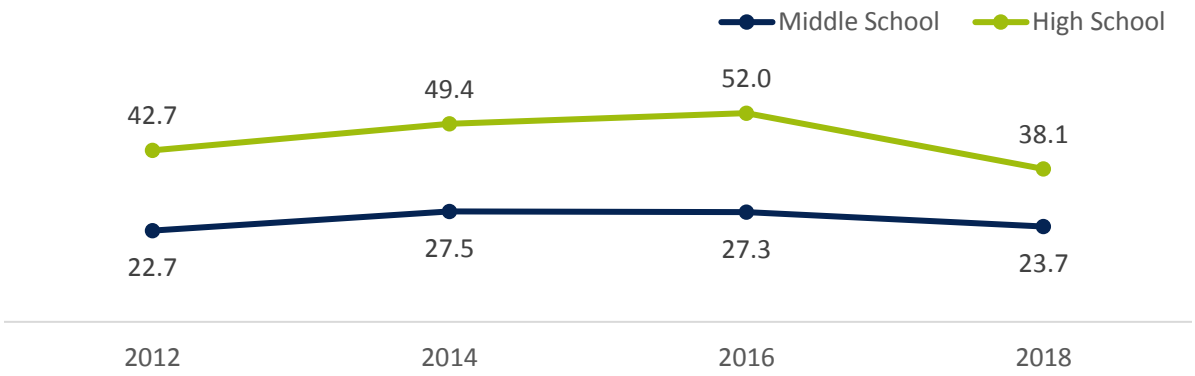
*NRT: Nicotine Replacement Therapy

[u] Methods used to quit tobacco were assessed by the question, "In the past 12 months, did you do any of the following to help you quit using tobacco of any kind for good?" Students could select one or more response options. The data presented here exclude students who indicated, "I did not use tobacco of any kind during the past 12 months" or "I did not try to quit during the past 12 months."

Health Care Provider Assessment of Tobacco Use

Health care providers play an important role in helping both youth and adult patients quit tobacco. In the *Clinical Practice Guidelines for Treating Tobacco Use and Dependence*, the U.S. Department of Health and Human Services recommends that health care providers assess patients' tobacco use at every visit and advise tobacco users to quit.[38] Among high school students who visited a health care provider in the past 12 months, the proportion who indicated that the provider asked them about tobacco use decreased significantly from 52.0% in 2016 to 38.1% in 2018. Among middle school students who visited a health care provider, the proportion who were asked about tobacco use has consistently been lower than among high school students, but it increased from 22.7% in 2012 to 27.3% in 2018.

Figure 4-4. Percentage of Middle and High School Students Who Were Asked by a Doctor, Dentist, or Nurse During the Past 12 Months Whether They Used Tobacco, 2012-2018 IYTS*

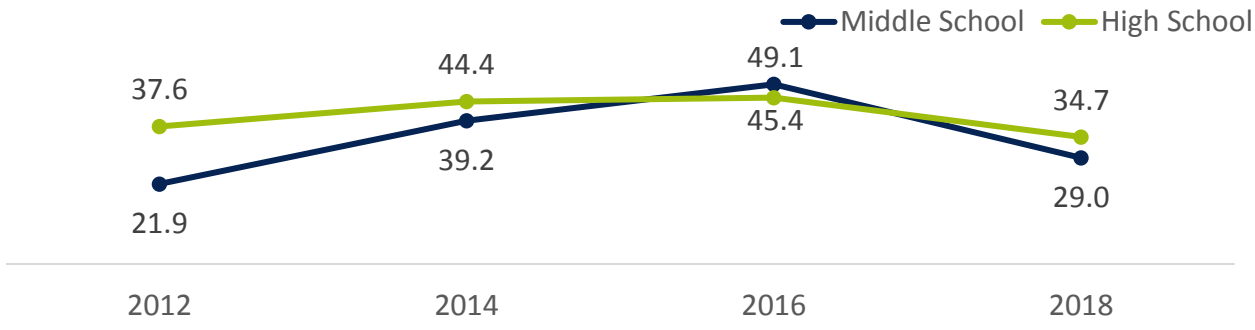


*Excludes students who did not visit a health care provider in the past twelve months.

Health Care Provider Advice to Quit Tobacco

Receiving advice to quit tobacco from a health care provider can increase tobacco users' attempts to quit tobacco.[39] Among middle school tobacco users, the proportion who reported that a health care provider advised them not to use tobacco more than doubled from 21.9% in 2012 to 49.1% in 2016, however in 2018 that number significantly decreased to 29.0%, still higher than in 2012. Among high school tobacco users, the proportion advised not to use tobacco decreased significantly from 45.4% in 2016 to 34.7% in 2018, falling below what was reported in 2012 (37.6%).

Figure 4-5. Percentage of Middle and High School Tobacco Users Who Were Advised Not to Use Tobacco by a Doctor, Dentist, or Nurse During the Past 12 Months, 2012-2018 IYTS*



*Excludes students who did not visit a health care provider in the past 12 months.

Summary: Tobacco Cessation

Cessation Intentions and Attempts

In 2018, about six in 10 middle school tobacco users (64.6%) and half of high school tobacco users (50.4%) reported attempting to quit tobacco within the past year. Only 35.0% of middle school tobacco users and 36.7% of high school tobacco users, however, reported that they were seriously thinking about quitting all tobacco products in the next year. Furthermore, a substantial proportion of middle school (45.9%) and high school (51.2%) tobacco users reported that they were not seriously thinking about quitting all tobacco products.

Cessation Methods

Use of evidence-based strategies to quit tobacco was low among current tobacco users in 2018. Among youth who attempted to quit tobacco in the past year, 64.6% of middle school tobacco users and 82.2% of high school tobacco users reported trying to quit on their own. A far smaller proportion of students reported using other methods to quit tobacco such as seeking help from friends or family, attending a school or community program, or using a telephone or Internet quitline.

Health Care Provider Assessment and Advice

Overall, there have been positive trends in health care provider assessment and advice regarding youth tobacco use. Between 2012 and 2018, the percentage of youth who reported that a health care provider asked whether they used tobacco increased from 22.7% to 23.7% among middle school students but decreased from 42.7% to 38.1% among high school students. Additionally, the proportion of tobacco users who reported that a health care provider advised them not to use tobacco increased between 2012 and 2018, from 21.9% to 29.0% among middle school tobacco users but decreased from 37.6% to 34.7% among high school tobacco users.

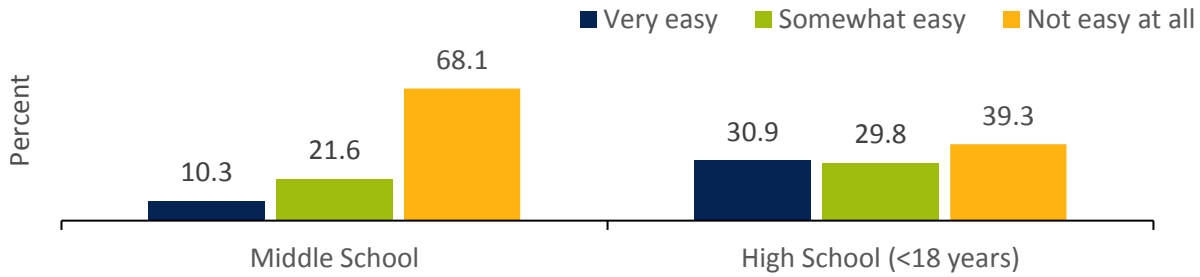
5. Youth Access and Purchasing

Reducing youth access to tobacco is a key strategy to prevent youth tobacco use.[40] This section presents data on how students under age 18 obtained tobacco products, where they purchased tobacco products, and tobacco use on school property. Because students age 18 years and older can legally purchase tobacco products in Indiana, the data for youth access to and purchasing of tobacco products are limited to students under age 18.

Perceived Ease of Obtaining Tobacco Products

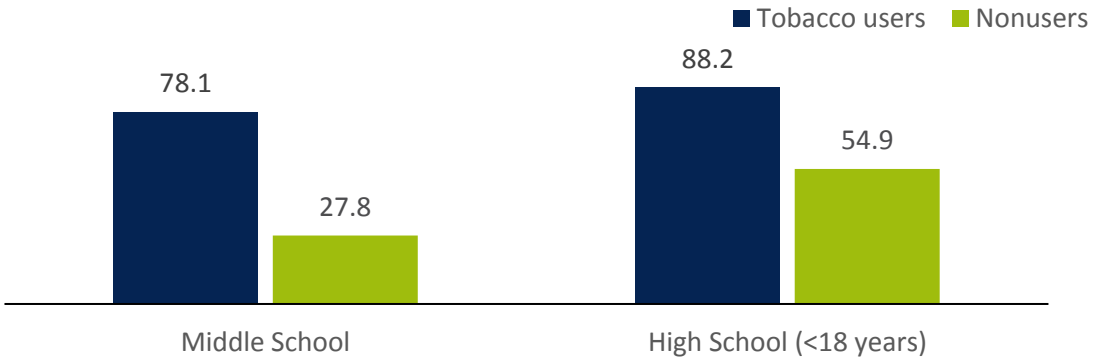
In 2018, students' perceived ease of obtaining tobacco products differed between middle and high school students. Among middle school students, nearly two-thirds (68.1%) believed that it would not be easy to obtain tobacco products if they wanted them, while 21.6% believed it would be somewhat easy and 10.3% believed it would be very easy. In contrast, perceived ease of obtaining tobacco was far higher among high school students. Nearly four in 10 (39.3%) high school students under age 18 believed it would not be easy to get tobacco products, while nearly six in 10 believed it would be somewhat (29.8%) or very easy (30.9%) to get tobacco products.

Figure 5-1. Perceived Ease of Obtaining Tobacco Products among Middle and High School Students, 2018 IYTS



Predictably, perceived ease of obtaining tobacco products varied substantially by whether students used tobacco. Among middle school students, about seven in 10 tobacco users (70.7%) believed it would be somewhat or very easy to obtain tobacco products, compared with only about one-third of nonusers (33.0%). Among high school students under age 18, more than nine in 10 tobacco users (92.0%) and nearly six in 10 nonusers (59.0%) believed it would be somewhat or very easy to obtain tobacco products.

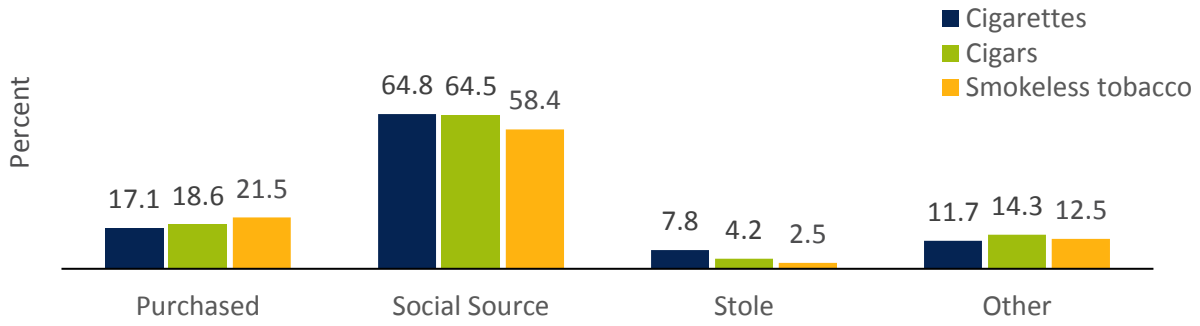
Figure 5-2. Percentage of Middle and High School Students Who Believe It Would Be Somewhat or Very Easy to Obtain Tobacco Products, by Current Tobacco Use, 2018 IYTS



Sources for Obtaining Cigarettes, Cigars, and Smokeless Tobacco

Figure 5-3 shows how underage high school students who used cigarettes, cigars, or smokeless tobacco reported obtaining their tobacco products.[v] Across these three products, current users most commonly reported obtaining their tobacco from a social source, such as having someone else buy the product for them, borrowing the product, or receiving the product from someone else without asking. Specifically, nearly two thirds of cigarette smokers (64.8%), more than six in 10 cigar users (64.5%), and nearly six in 10 smokeless tobacco users (58.4%) reported obtaining their tobacco from a social source. There were also some differences between tobacco products in the proportion of students who reported purchasing these products for themselves. Although only 17.1% of cigarette smokers, and 18.6% of smokeless tobacco users reported purchasing their own cigarettes and smokeless tobacco respectively, more than one in five cigar users (21.5%) reported purchasing their own cigars. A smaller proportion of students reported stealing tobacco from a store or another person or obtaining tobacco some other way.

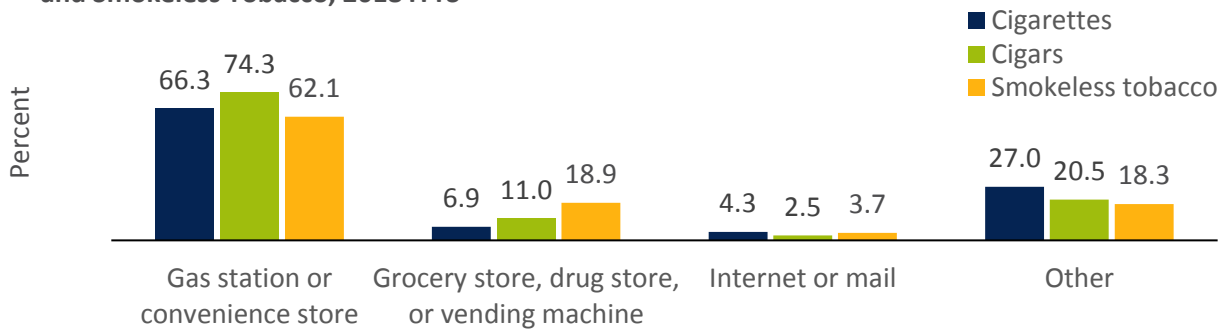
Figure 5-3. Sources Where Underage High School Tobacco Users Obtained Cigarettes, Cigars, and Smokeless Tobacco, 2018 IYTS



Tobacco Purchasing[w]

Among underage high school tobacco users, the majority of cigarette (62.1%), cigar (74.3%), and smokeless tobacco users (62.1%) who reported purchasing these products bought their tobacco at gas stations or convenience stores. A far smaller proportion of tobacco users reported buying tobacco from other retail venues, such as at grocery stores, drug stores, or vending machines or through the Internet, mail, or other sources.

Figure 5-4. Sources Where Underage High School Tobacco Users Purchased Cigarettes, Cigars, and Smokeless Tobacco, 2018 IYTS



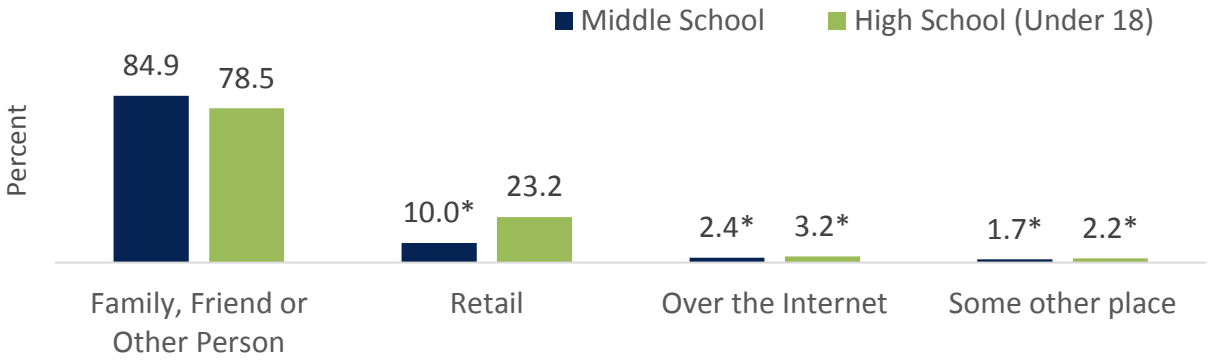
[v] Respondents could select more than one method of obtaining tobacco products. Data are not presented for middle school students due to insufficient sample size (n<50) for each product.

[w] Respondents could select more than one method of purchasing tobacco products. Data are not presented for middle school students due to insufficient sample size (n<50) for each product.

Sources for Obtaining or Purchasing JUUL[x]

Figure 5-5 shows how underage high school students and middle school students, who used JUUL, reported obtaining their JUUL. Current users most commonly reported obtaining their JUUL from a social source, such as friend or family member, or a retail setting like a gas station or a convenience store. Specifically, more than three in four (78.5%) underage high school and 84.9% of middle school JUUL users reported obtaining their JUUL from a social source. Nearly a quarter (23.2%) of underage high school and one in 10 (10.0%)middle school JUUL users obtained their JUUL from a retail setting including gas stations, convenience stores, a drugstore, or vape shop. A smaller proportion of underage high school students (3.2%) and middle school students (1.1%) reported obtaining their JUUL over the internet.

Figure 5-5. Sources Where Middle School and Underage High School JUUL Users Obtained or Pruchased JUUL, 2018 IYTS



*Relative standard error >30%. Estimates may be unstable and should be interpreted with caution.

Adherence to Cigarette Sale Age Restrictions

In 2018, only about 23.0% of underage high school cigarette smokers who attempted to purchase cigarettes indicated that someone refused to sell them cigarettes because of their age. While students did not specify whether these attempted purchases were in retail settings, the majority of students who purchased cigarettes reported purchasing cigarettes in a retail store. Ensuring strong compliance with tobacco sales age restrictions among tobacco retailers is therefore a key component of reducing youth access to tobacco products.[41]

[x] Obtaining or purchasing JUUL was assessed by the question, "During the past 30 days where did you get or buy the JUUL that you have used?" Respondents could select more than one method of obtaining JUUL.

Summary: Youth Access and Purchasing

Perceived Ease of Access to Tobacco Products

In 2018, more than three in 10 middle school students (31.9%) believed it would be somewhat or very easy to obtain tobacco products if they wanted them. In contrast, nearly two-thirds of underage high school students (62.6%) believed it would be somewhat or very easy to obtain tobacco products. Predictably, perceived ease of access to tobacco was far higher among tobacco users than nonusers, with nearly eight in 10 middle school tobacco users (78.1%) and nearly nine in 10 underage high school tobacco users (88.2%) reporting that it would be somewhat or very easy for them to get tobacco products.

Sources of Tobacco Products

As in prior years, in 2018, the majority of high school cigarette (64.8%), cigar (64.5%), and smokeless tobacco (58.4%) users under age 18 reported obtaining these products from social sources. Additionally, despite laws prohibiting the sale of tobacco products to youth under age 18, some underage youth continued to report purchasing tobacco products. In particular, 17.1% of high school cigarette users, 18.6% of high school cigar users, and 21.5% of high school smokeless tobacco users under age 18 reported purchasing tobacco products.

Tobacco Purchasing

Among underage high school tobacco users who reported purchasing tobacco, the majority purchased tobacco from retail settings, particularly gas stations or convenience stores. In 2018, 66.3% of underage cigarette users, 74.3% of underage cigar users, and 62.1% of underage smokeless tobacco users who purchased tobacco reported buying these products from a gas station or convenience store. Far smaller proportions of cigarette, cigar, and smokeless tobacco users reported purchasing these products in other retail settings, through the mail or Internet, or from other sources.

Obtaining and Purchasing JUUL

Among middle school and underage high school JUUL users who reported purchasing or obtaining a JUUL the majority obtained JUUL from social sources such as a friend, a family member or someone else they know. In 2018, 84.9% of middle school students and 78.5% underage high school students reported obtaining their JUUL from a social source. Far smaller proportions reported purchasing or obtaining JUUL from a retail environment including a gas station or convenience store, or over the internet.

6. Secondhand Smoke Exposure

Secondhand smoke includes smoke from burning tobacco products as well as exhaled tobacco smoke. It contains more than 7,000 chemicals, including over 70 that can cause cancer.[42] The U.S. Surgeon General has concluded that there is no risk-free level of exposure to secondhand smoke and that breathing secondhand smoke can have serious health consequences, including cancer, respiratory diseases, and cardiovascular diseases.[43] In addition to preventing youth tobacco use, preventing exposure to secondhand smoke is an important component of protecting the health of Hoosier youth.

Secondhand Smoke Exposure at Home

In 2018, 28.0% of middle school students and 23.7% of high school students reported that someone smoked tobacco products in their home while they were there during the past week. Exposure to secondhand smoke at home was significantly higher, however, among youth who lived with someone who smoked cigarettes than youth who did not live with a smoker. In 2018, approximately half of middle (54.3%) and high school (49.5%) students who lived with a smoker reported secondhand smoke exposure at home, compared with fewer than one in seven youth who did not live with a smoker. Secondhand smoke exposure at home declined significantly between 2016 and 2018 among high school students overall, and among high school students who lived with a smoker, but significantly increased among middle and high school students who did not live with a smoker. There was a significant decline, in exposure to secondhand smoke at home among high school students overall and high school students who lived with a smoker between 2012 and 2018.

Figure 6-1. Percentage of Middle School Students Who Were Exposed to Secondhand Smoke at Home during the Past 7 Days, by Household Smoking, 2012-2018 IYTS

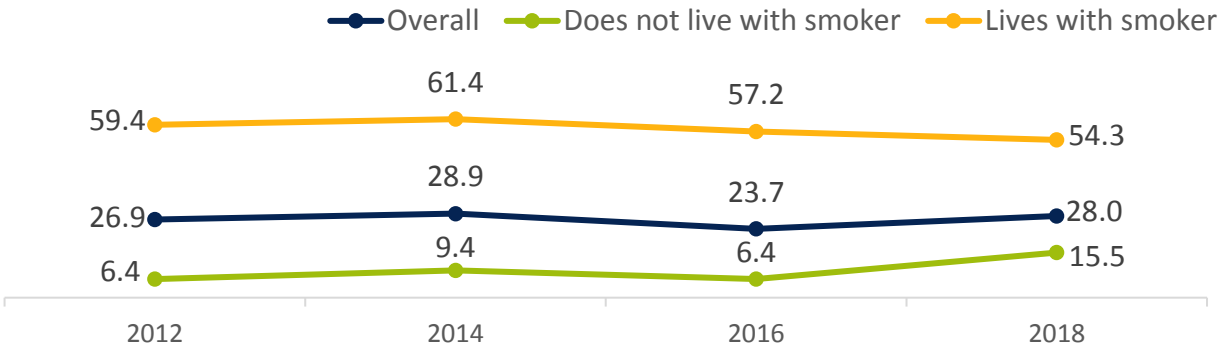
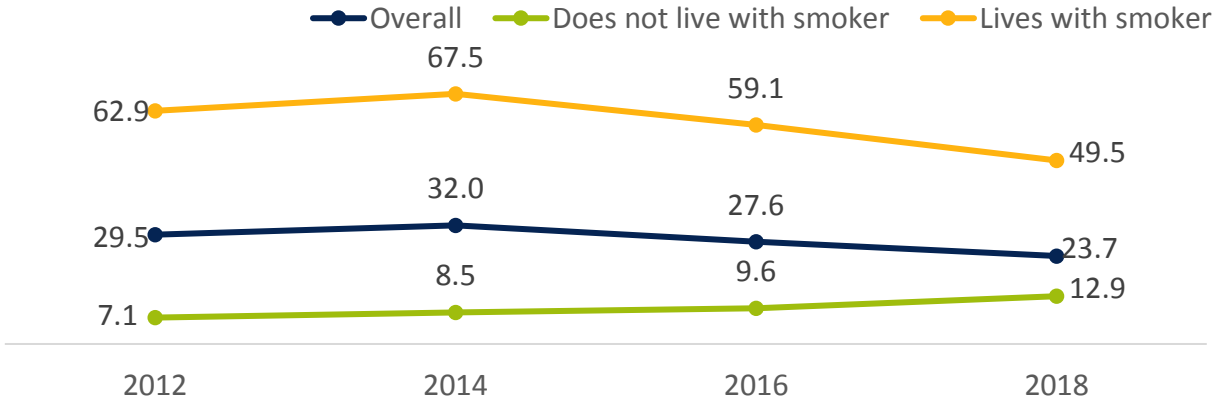


Figure 6-2. Percentage of High School Students Who Were Exposed to Secondhand Smoke at Home during the Past 7 Days, by Household Smoking, 2012-2018 IYTS



Frequent Secondhand Smoke Exposure at Home

In 2018, 14.7% of middle school students and 13.6% of high school students overall reported daily secondhand smoke exposure at home. Although the overall prevalence of daily secondhand smoke exposure among middle and high school students fluctuated somewhat from year to year, daily secondhand smoke exposure among high school students did significantly decline between 2012 and 2018.

Similar to secondhand smoke exposure in general, daily secondhand smoke exposure was significantly higher among students who lived with smokers than students who did not live with smokers. In 2018, about 32.5% of middle school students and 32.7% of high school students who lived with smokers reported daily secondhand smoke exposure at home, compared with 6.1% of middle school and 5.6% of high school students who did not live with smokers. Furthermore, among students exposed to any secondhand smoke at home, daily exposure was quite common. In 2018, more than half of middle school students (52.5%) and nearly six in 10 high school students (57.3%) who were exposed to secondhand smoke at home were exposed daily.

Figure 6-3. Percentage of Middle School Students Who Report Daily Secondhand Smoke Exposure at Home, by Household Smoking, 2012-2018 IYTS

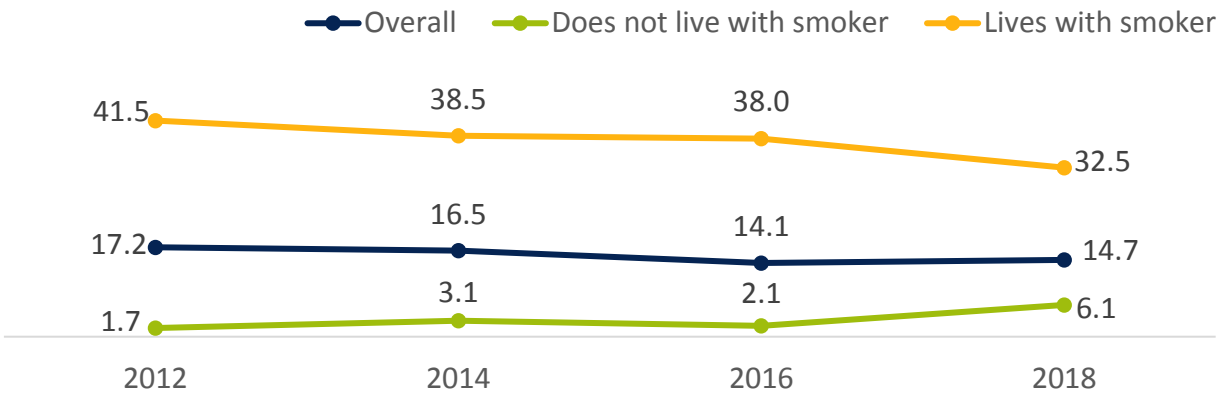
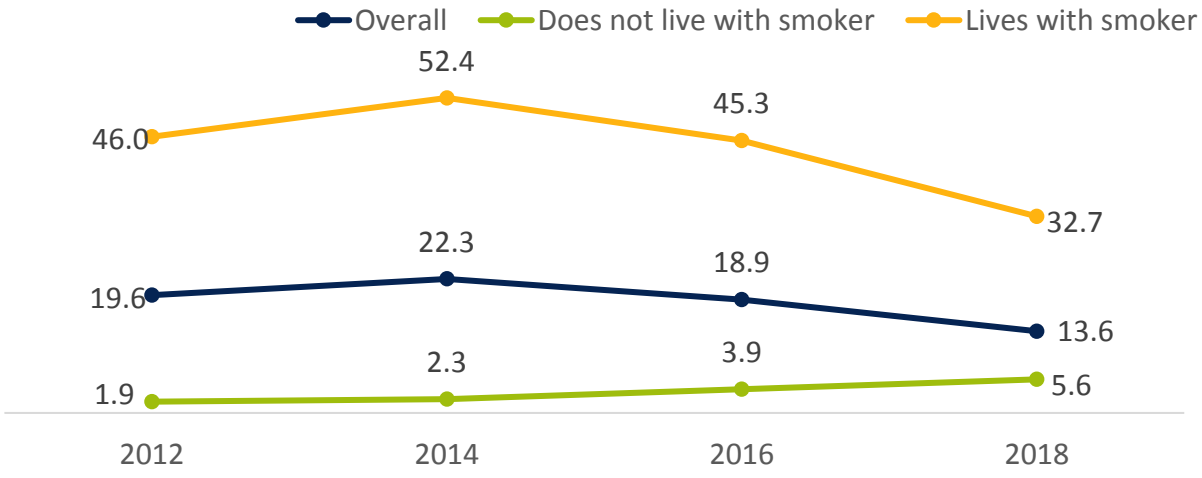


Figure 6-4. Percentage of High School Students Who Report Daily Secondhand Smoke Exposure at Home, by Household Smoking, 2012-2018 IYTS



Secondhand Smoke Exposure in Vehicles

Since 2000, there has been substantial progress in reducing youth secondhand smoke exposure in vehicles. Between 2000 and 2018, the overall percentage of youth exposed to secondhand smoke in a vehicle in the past week declined significantly, from 48.3% to 26.5% among middle school students and from 60.1% to 25.8% among high school students.

Between 2000 and 2018, students who lived with smokers were consistently more likely to be exposed to secondhand smoke in a vehicle than students who did not live with smokers. In 2018, nearly half of middle school students (49.9%) and more than 4 in 10 high school students (45.7%) who lived with smokers were exposed to secondhand smoke in a vehicle, compared with only 15.0% of middle and 17.4% of high school students who did not live with smokers. Despite this persistent disparity, exposure to secondhand smoke in a vehicle decreased significantly between 2000 and 2018 among both high school students who lived with smokers and those who did not.

Figure 6-5. Percentage of Middle School Students Exposed to Secondhand Smoke in a Vehicle on One or More of the Past Seven Days, 2000-2018 IYTS

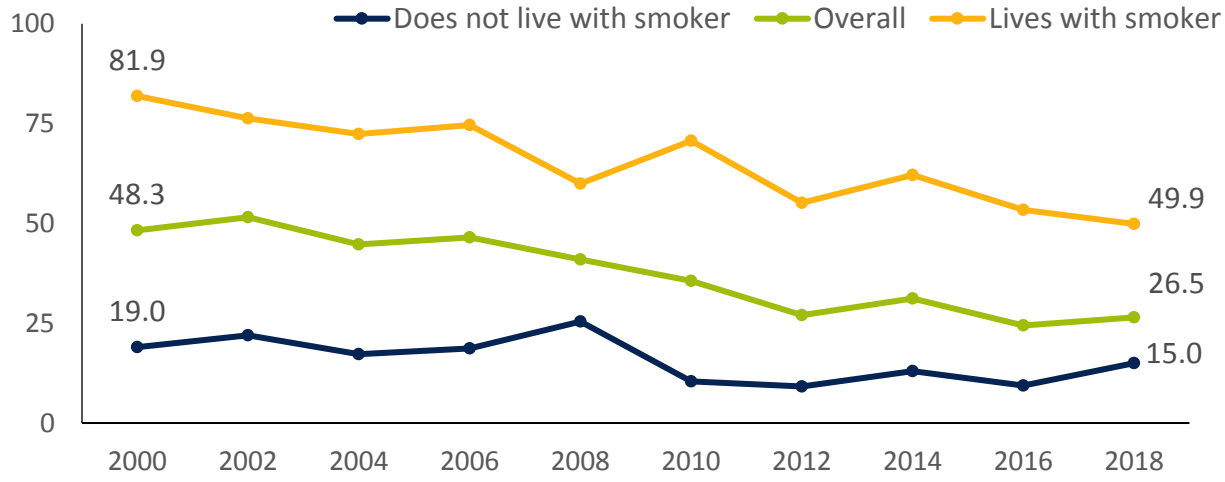
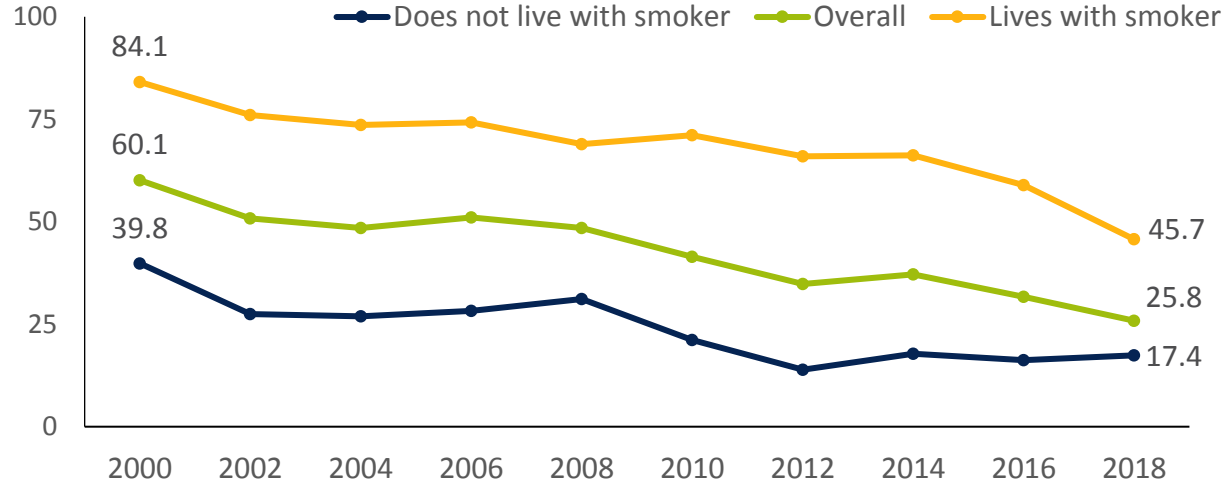


Figure 6-6. Percentage of High School Students Exposed to Secondhand Smoke in a Vehicle on One or More of the Past Seven Days, 2000-2018 IYTS



Frequent Secondhand Smoke Exposure in Vehicles

Between 2000 and 2018, the overall proportion of youth exposed to secondhand smoke in a vehicle on a daily basis declined significantly, from 16.5% to 7.4% among middle school students and from 21.5% to 7.0% among high school students. While daily secondhand smoke exposure in vehicles remained significantly higher among students who lived with smokers than those who did not, daily secondhand smoke exposure in vehicles declined significantly among youth living with smokers between 2000 and 2018, from 34.4% to 16.3% among middle school students and from 38.5% to 16.1% among high school students.

Overall, daily secondhand smoke exposure in vehicles was somewhat less common than daily secondhand smoke exposure at home. Among students reporting any exposure to secondhand smoke in a vehicle, 28.1% of middle and 27.3% of high school students reported daily exposure. In contrast, 52.5% of middle and 57.3% of high school students reporting any secondhand smoke exposure at home were exposed daily.

Figure 6-7. Percentage of Middle School Students Exposed to Secondhand Smoke in a Vehicle Daily, 2000-2018 IYTS

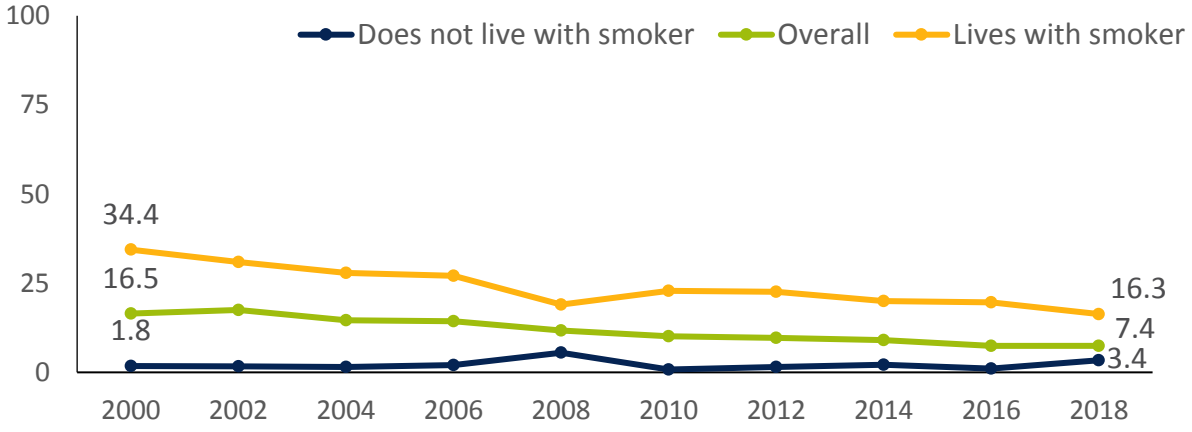
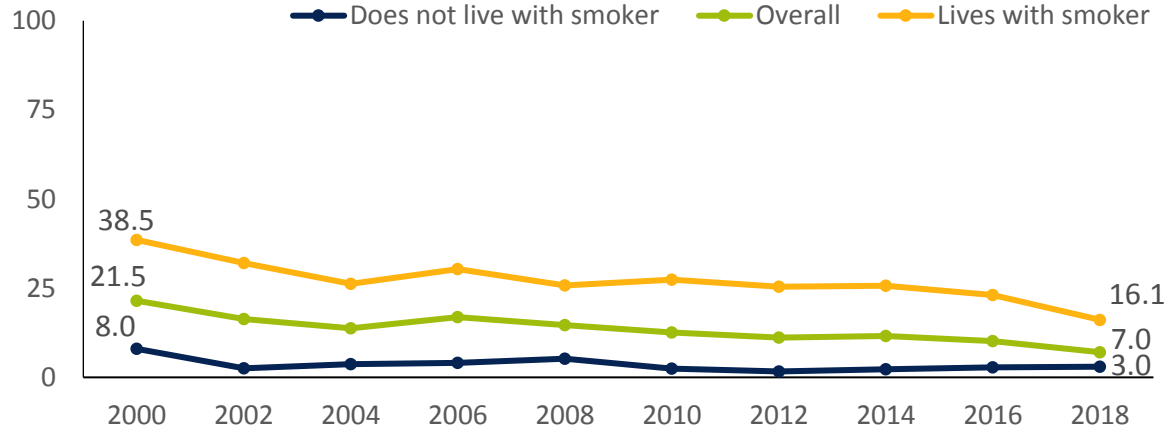


Figure 6-8. Percentage of High School Students Exposed to Secondhand Smoke in a Vehicle Daily, 2000-2018 IYTS



Rules about Smoking in the Home

Rules prohibiting smoking in the home can help protect children from secondhand smoke. Overall, there have been positive trends in smoke-free home rules among Hoosier youth. Between 2004 and 2018, the overall percentage of students who reported that smoking is never allowed in their home increased significantly among both middle school students (from 58.4% to 79.6%) and high school students (from 62.4% to 81.6%). The prevalence of smoke-free home rules, however, has been consistently lower among students who live with smokers than students who do not live with smokers. In 2018, although nearly 9 in 10 youth who did not live with a smoker reported having a smoke-free home, just six in 10 youth who lived with smokers reported having a smoke-free home. Even among students who live with smokers, however, the proportion who report that smoking is never allowed in their home increased significantly between 2004 and 2018, from 32.7% to 61.1% among middle school students and from 35.1% to 62.5% among high school students.

Figure 6-9. Percentage of Middle School Students Who Report that Smoking is Never Allowed Inside Their Home, 2004-2016 IYTS

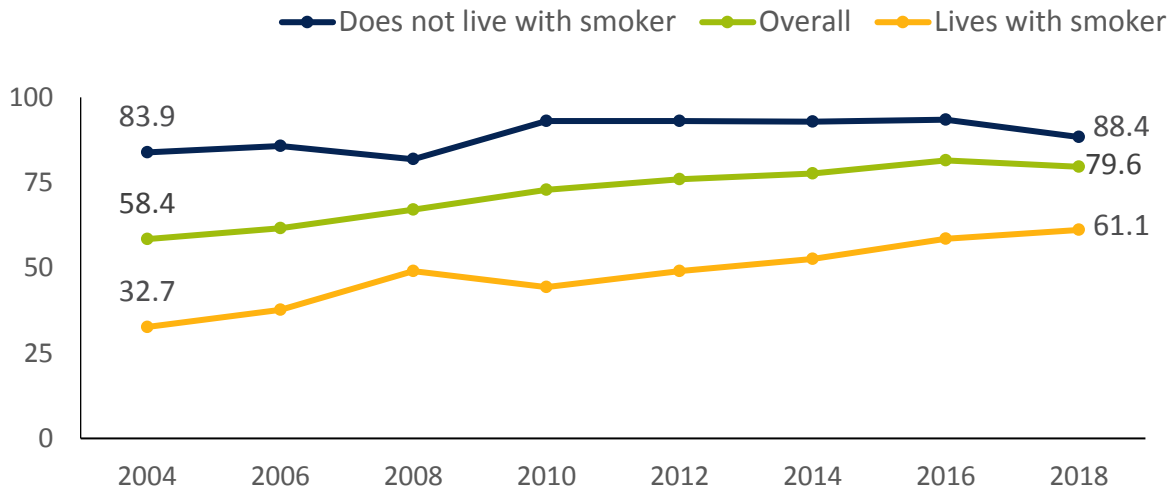
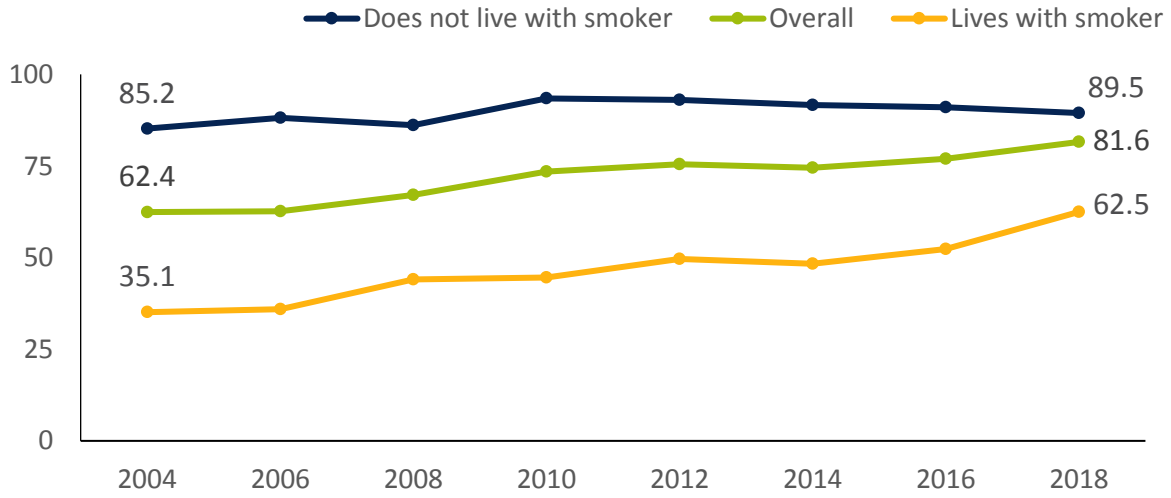


Figure 6-10. Percentage of High School Students Who Report that Smoking is Never Allowed Inside Their Home, 2004-2018 IYTS



Rules about Smoking in Vehicles

Between 2006 and 2018, the overall percentage of students who reported that smoking is never allowed in vehicles they or their family own or lease increased significantly, from 57.1% to 72.1% among middle school students and from 53.3% to 74.3% among high school students. Among students who live with smokers, the prevalence of smoke-free car rules significantly increased from 2006 to 2018. In 2018, only 44.4% of middle school students and 46.2% of high school students who lived with smokers reported that smoking was never allowed in family vehicles, compared with 84.7% of middle school students and 86.0% of high school students who did not live with smokers.

Figure 6-11. Percentage of Middle School Students Who Report that Smoking is Never Allowed Inside Vehicles that They or Their Families Own or Lease, 2006-2018 IYTS

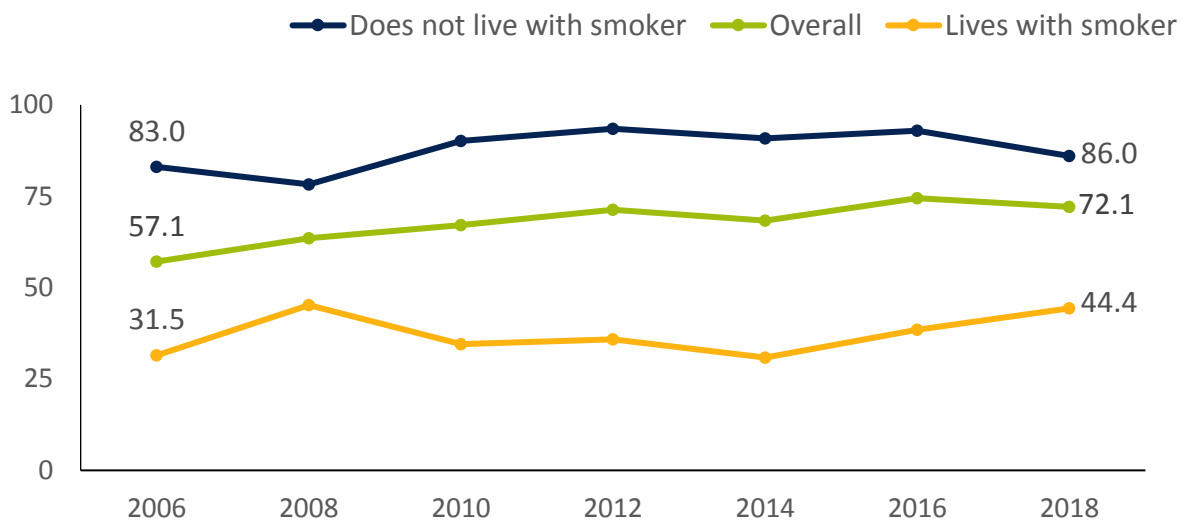
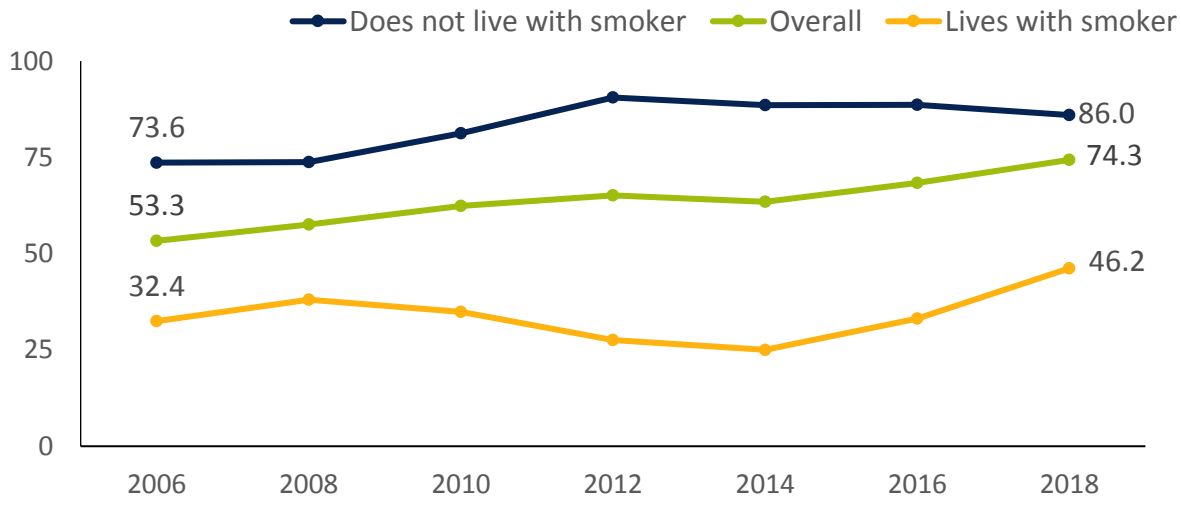


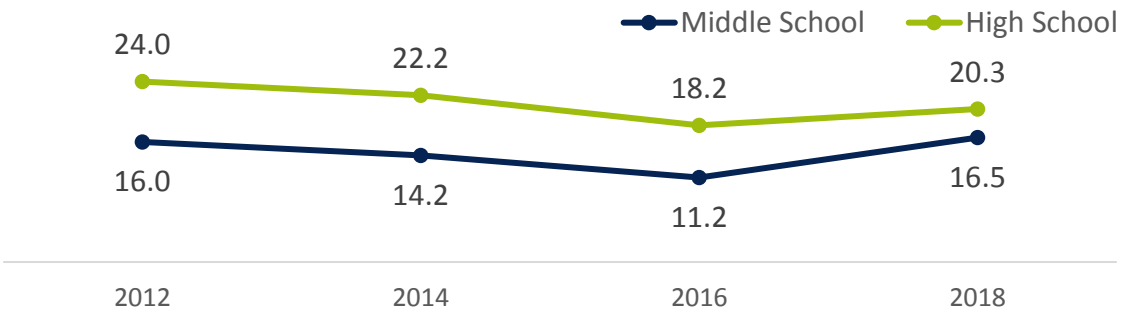
Figure 6-12. Percentage of High School Students Who Report that Smoking is Never Allowed Inside Vehicles that They or Their Families Own or Lease, 2006-2018 IYTS



Secondhand Smoke Exposure at School

About 98% of public school districts in Indiana had a tobacco-free campus policy in 2018. Some Indiana youth, however, still reported exposure to secondhand smoke at school, including school buildings, grounds, and parking lots. In 2018, 16.5% of middle school students and 20.3% of high school students reported secondhand smoke exposure at school. Overall, exposure to secondhand smoke on school property has slightly increased among middle school students between 2012 and 2018 (16.0% to 16.5%) and decreased among high school students (24.0% to 20.3%).

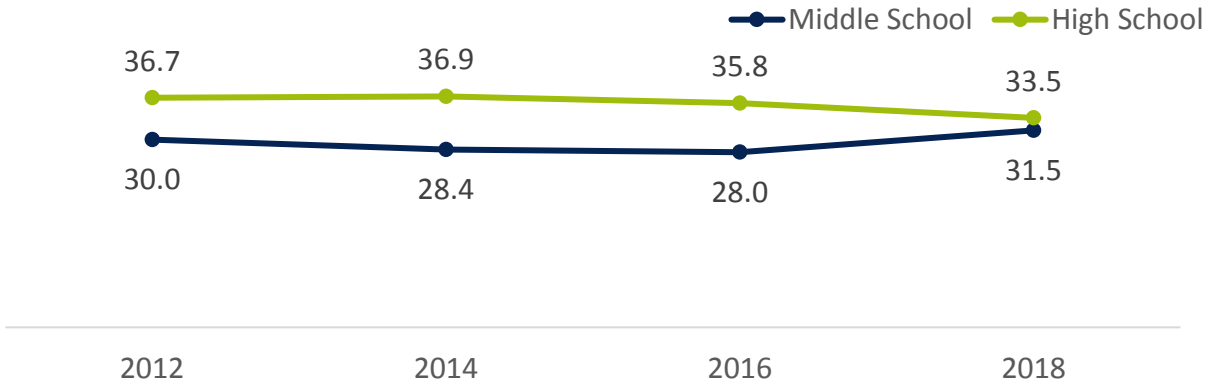
Figure 6-13. Percentage of Middle and High School Students Who Were Exposed to Secondhand Smoke on School Property During the Past Seven Days, 2012-2018 IYTS



Secondhand Smoke Exposure in Public Places[y]

In 2018, 31.5% of middle school students and 33.5% of high school students reported being exposed to secondhand smoke in a public place. While there has been little change in the proportion of middle school students exposed to secondhand smoke in public places there has been a significant decrease in the proportion of high school students exposed between 2012 and 2018.

Figure 6-14. Percentage of Middle and High School Students Exposed to Secondhand Smoke in Indoor or Outdoor Public Places During the Past Seven Days, 2012-2018 IYTS



[y] Secondhand smoke exposure in public places was assessed by the question, "During the past 7 days, on how many days did you breathe the smoke from someone who was smoking tobacco products in an indoor or outdoor public place? Examples of indoor public places are school buildings, stores, restaurants, and sports arenas. Examples of outdoor public places are school grounds, parking lots, stadiums, and parks."

Secondhand Smoke Exposure at Work

In 2012, Indiana passed a statewide smoke-free air law that prohibited smoking in restaurants and most workplaces; however, some youth continue to report exposure to secondhand smoke at the workplace.[z]

In 2018, 2.5% of middle school students and 10.5% of high school students overall reported exposure to secondhand smoke at work on one or more of the past seven days. This was a significant decline from 7.0% and 15.7%, respectively, in 2006. Among students who worked in the past seven days, however, 40.3% of middle school students and 35.0% of high school students reported being exposed to secondhand smoke at work. This was significantly lower than the prevalence of secondhand smoke exposure among middle (56.6%) and high school (44.1%) students who worked in 2006.

Figure 6-15. Percentage of Middle School Students Who Were Exposed to Secondhand Smoke at Work on One or More of the Past Seven Days, 2006-2018 IYTS

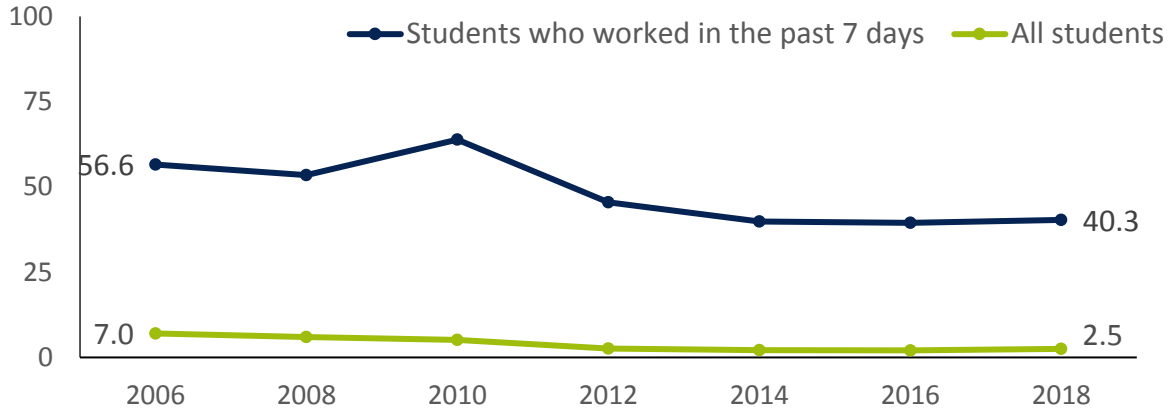
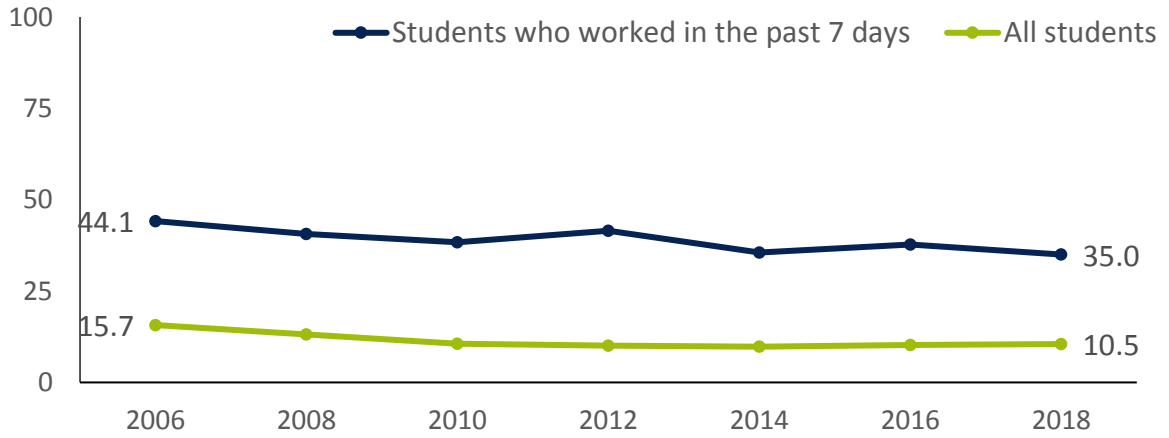


Figure 6-16. Percentage of High School Students Who Were Exposed to Secondhand Smoke at Work on One or More of the Past Seven Days, 2006-2018 IYTS

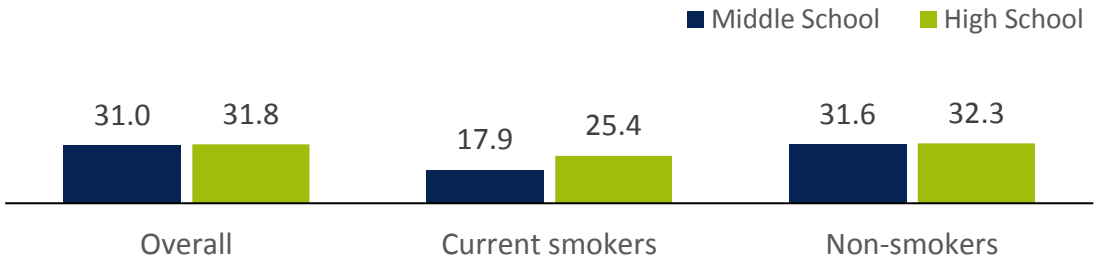


[z] Secondhand smoke exposure at work was assessed by the question, "During the past 7 days, on how many days did you breathe smoke from someone who was smoking tobacco products in the place where you work?" Because the question does not explicitly ask about smoking in indoor workplaces, students' reported secondhand smoke exposure may reflect exposure either indoors or outdoors at work, including outdoor areas that are not covered by Indiana's smoke-free air law.

Perceived Harm of Secondhand Smoke

In addition to secondhand smoke exposure, the 2018 IYTS assessed students' beliefs about secondhand smoke. In 2018, only about 31.0% of middle school students and 31.8% of high school students indicated that they believed breathing secondhand smoke causes "a lot of harm." This proportion was even lower among current smokers, as one in four high school smokers (24.4%) and less than one in five middle school smokers (17.9%) believed secondhand smoke causes a lot of harm, compared with about one-third of high school and middle school non-smokers (32.3% and 31.6%). Overall, the relatively low perceived harm of secondhand smoke indicates a need to increase youth awareness of the dangers of secondhand smoke.

Figure 6-17. Percentage of Middle and High School Students Who Believe Breathing Secondhand Smoke Causes a Lot of Harm, by Smoking Status, 2018 IYTS



Summary: Secondhand Smoke Exposure

Secondhand Smoke Exposure at Home or in Vehicles

In 2018, approximately one in four middle and high school students reported exposure to secondhand smoke in their home. Furthermore, youth who were exposed to secondhand smoke at home tended to be frequently exposed, as the majority of youth who were exposed to secondhand smoke at home were exposed daily. Additionally, 26.5% of middle school students and 25.8% of high school students reported past-week exposure to secondhand smoke in vehicles in 2018, although this was a significant decline from 48.3% and 60.1%, respectively, in 2000.

As in prior years, secondhand smoke exposure at home or in vehicles was far higher among students who lived with smokers than those who did not. In 2018, approximately six in 10 middle and high school students who lived with a smoker reported past-week exposure to secondhand smoke in either their home or a vehicle. Students who lived with smokers also were more likely to report daily secondhand smoke exposure than students who did not live with smokers.

Smoke-Free Home and Car Rules

Between 2004 and 2018, the overall proportion of Hoosier youth living in homes where smoking was never allowed increased significantly, from 58.4% to 79.6% among middle school students and from 62.4% to 81.6% among high school students. The proportion of students who reported that smoking is never allowed in family vehicles also increased significantly, from 57.1% to 72.1% among middle school students and from 53.3% to 74.3% among high school students. Students who lived with smokers, however, were less likely to report having smoke-free homes or vehicles than students who did not live with smokers.

Secondhand Smoke Exposure in Public Places

Despite increased protections from secondhand smoke through Indiana's smoke-free air law implemented in 2012, some Hoosier youth continue to be exposed to secondhand smoke in public places. In 2018, 31.5% of middle school students and 33.5% of high school students reported past-week exposure to secondhand smoke in an indoor or outdoor public place. A somewhat smaller proportion of middle and high school students reported past-week exposure to secondhand smoke on school property (16.5% and 20.3%, respectively) or at work (2.5% and 10.5%, respectively). Overall, more than half of middle school students (50.2%) and over half of high school students (51.6%) reported past-week secondhand smoke exposure in any location (home, vehicles, public places, school, or work), highlighting a continued need to protect Hoosier youth from secondhand smoke.

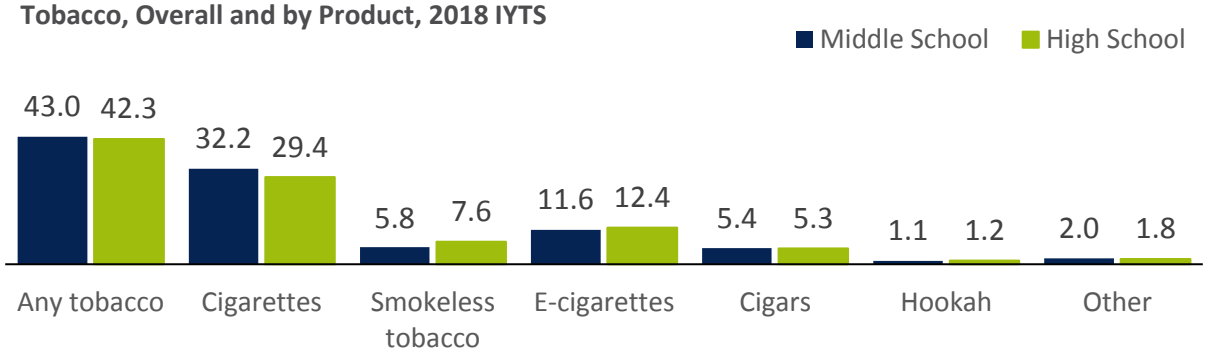
7. Social Influences Related to Tobacco Use

The 2012 Surgeon General's report on preventing youth tobacco use concluded that youth are particularly susceptible to social and environmental influences to use tobacco.[44] This section presents trends on social influences related to youth tobacco use, including household tobacco use, peer tobacco use, perceived peer smoking prevalence, parental advice, and in-school education about tobacco.

Household Tobacco Use

In 2018, more than four in 10 middle school students (43.0%) and high school students (42.3%) reported living with someone who used any tobacco product. Students most commonly reported living with someone who smoked cigarettes, as about 32.2% of middle school students and 29.4% of high school students lived with a smoker. A somewhat smaller proportion of students reported living with someone who used smokeless tobacco, e-cigarettes, cigars, hookahs, or other tobacco products.

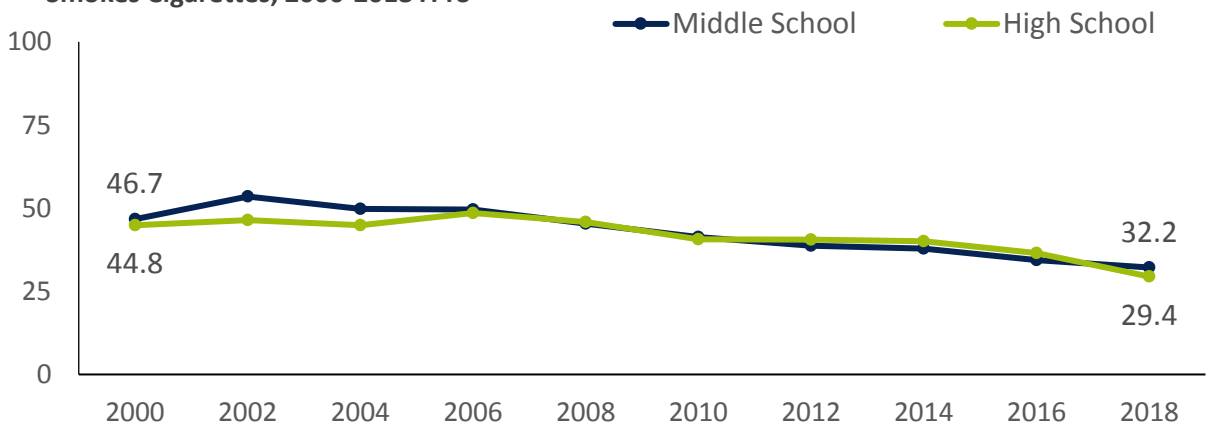
Figure 7-1. Percentage of Middle and High School Students Who Live With Someone Who Uses Tobacco, Overall and by Product, 2018 IYTS



Trends in Household Cigarette Use

In 2018, 32.2% of middle school students and 29.4% of high school students reported living with someone who smoked cigarettes. This was a significant decline from 2000, when 46.7% of middle school students and 44.8% of high school students reported living with someone who smoked cigarettes.

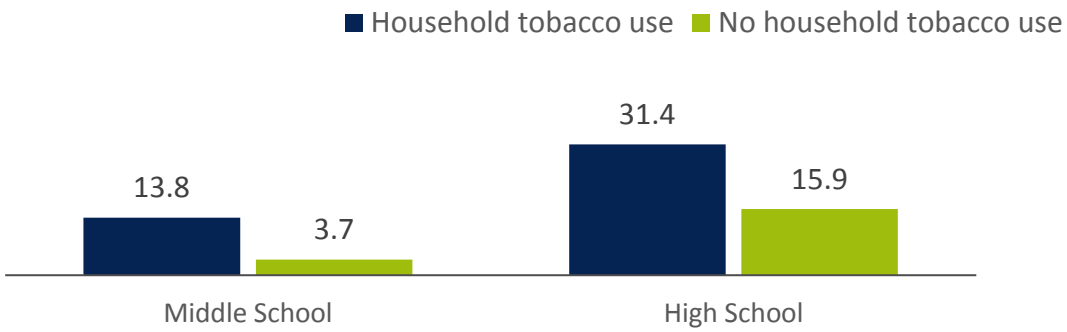
Figure 7-2. Percentage of Middle and High School Students Who Live with Someone Who Smokes Cigarettes, 2000-2018 IYTS



Current Tobacco Use among Youth by Household Tobacco Use

Students who live with someone who uses tobacco are significantly more likely to report current tobacco use themselves. In 2018, current tobacco use among middle school students who lived with a tobacco user (13.8%) was more than three times higher than among middle school students who did not live with a tobacco user (3.7%). Similarly, current tobacco use was two times higher among high school students who lived with a tobacco user (31.4%) than students who did not live with a tobacco user (15.9%).

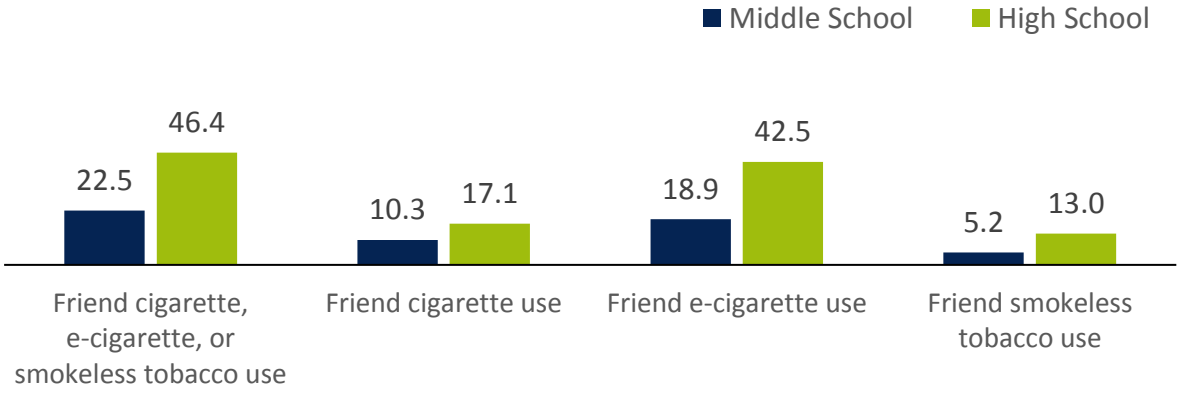
Figure 7-3. Percentage of Middle and High School Students Who Currently Use Tobacco, by Household Tobacco Use, 2018 IYTS



Friend Tobacco Use

Peer tobacco use may influence youth tobacco use behaviors.[45] In 2018, more than one in five middle school students (22.5%) and nearly half of high school students (46.4%) reported having at least one friend who used cigarettes, e-cigarettes, or smokeless tobacco. Nearly one in five high school students reported having a friend who used cigarettes (17.1%), while two in five reported having a friend who used e-cigarettes (42.5%), and about one in eight reported having a friend who used smokeless tobacco (13.0%). Among middle school students, about 10.3% reported having a friend who used cigarettes, 18.9% reported having a friend who used e-cigarettes, and 5.2% reported having a friend who used smokeless tobacco.

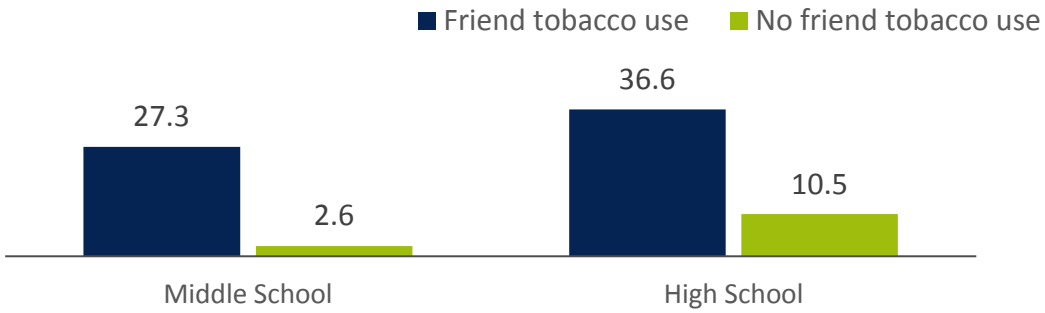
Figure 7-4. Percentage of Middle and High School Students Who Have At Least One Friend Who Uses Cigarettes, E-cigarettes, or Smokeless Tobacco, IYTS 2018



Association Between Friend Tobacco Use and Current Tobacco Use

In 2018, having at least one friend who used cigarettes, e-cigarettes, or smokeless tobacco was strongly associated with current tobacco use among youth. In particular, middle school students who had at least one friend who used one of these tobacco products were nearly 11 times more likely to currently use tobacco (27.3%) than students who did not have a friend who used these products (2.6%). Among high school students, youth who reported having at least one friend who used these products were more than three times more likely to use tobacco (36.6%) than students who did not have a friend who used these products (10.5%).

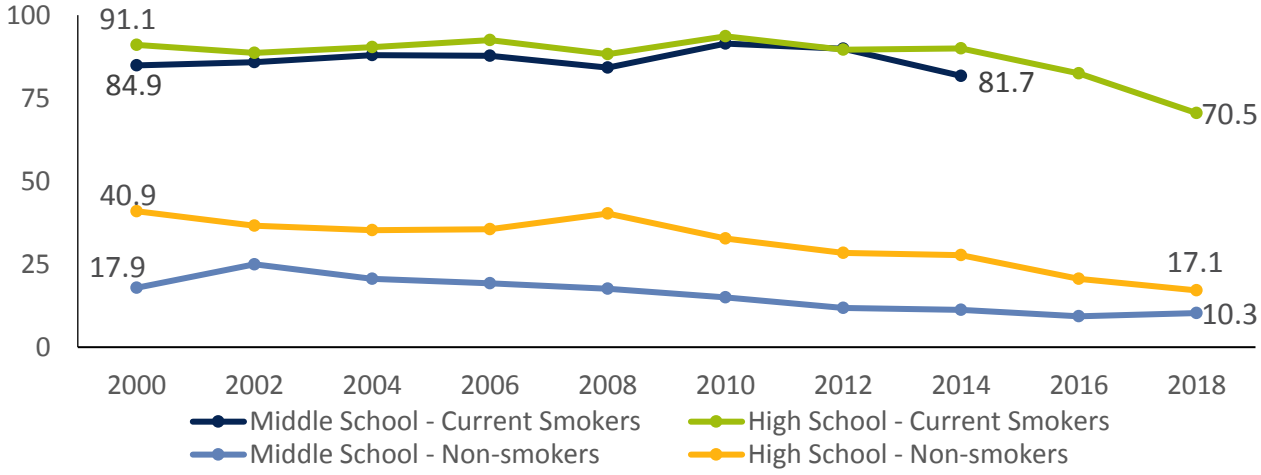
Figure 7-5. Percentage of Middle and High School Students Who Currently Use Tobacco, by Friend Tobacco Use (Cigarettes, E-cigarettes, or Smokeless Tobacco), 2018 IYTS



Friend Cigarette Smoking

Having friends who smoke cigarettes may influence youth to smoke cigarettes.[46] Between 2000 and 2018, the percentage of students who have at least one friend who smokes cigarettes has consistently been far higher among current smokers than non-smokers. In 2018, 70.5% of high school smokers reported having at least one friend who smoked cigarettes. In contrast, only 17.1% of high school non-smokers reported having at least one friend who smoked cigarettes in 2018, a significant decline from 40.9% in 2000. In 2018, 10.3% of middle school non-smokers reported having a friend who smoked cigarettes, a significant decline from 17.9% in 2000.

Figure 7-6. Percentage of Middle and High School Students Who Have at Least One Friend Who Smokes Cigarettes, 2000-2018 IYTS



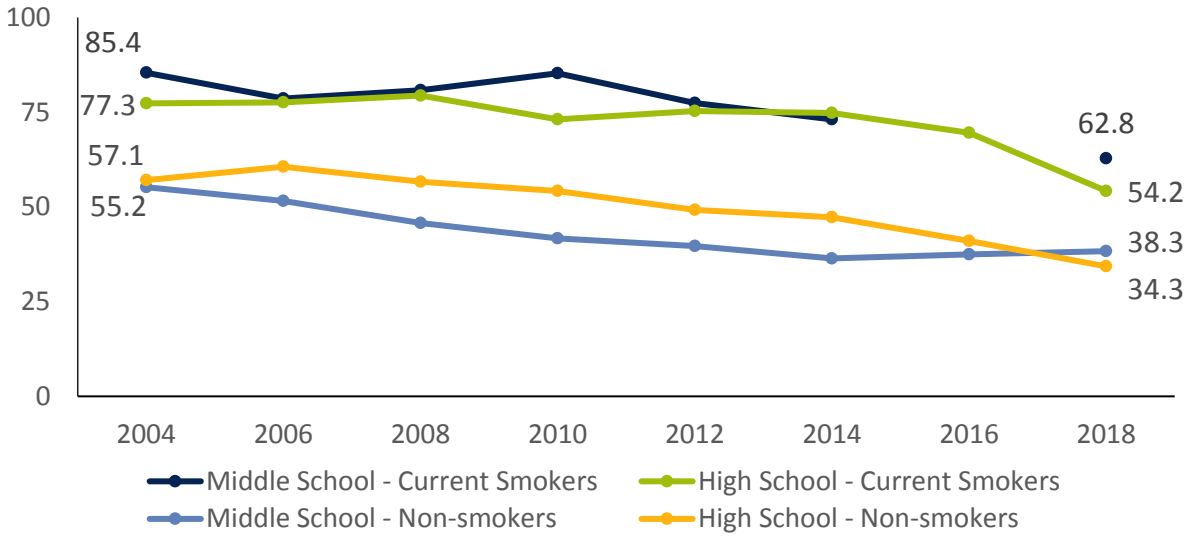
Data for middle school current smokers are not reported in 2016 or 2018 due to insufficient sample size (n<50).

Perceived Peer Smoking Prevalence

Figure 7-7 shows the percentage of middle and high school students who believe a high proportion of their peers smoke cigarettes.[aa] Between 2004 and 2018, current smokers were consistently more likely than non-smokers to believe that a high proportion of their peers smoked cigarettes. In 2018, 54.2% of high school smokers believed that a high proportion of their peers smoked cigarettes, compared with 34.3% of high school non-smokers. Additionally, the percentage of high school non-smokers and smokers who reported a high perceived prevalence of peer smoking declined significantly between 2004 and 2018 as well as between 2016 and 2018.

In 2018, 38.3% of middle school non-smokers reported a high perceived prevalence of peer smoking, a significant decline from 55.2% in 2004. Similar to the trends seen among high school smokers, in 2018, middle school smokers reported a much higher perceived prevalence of peer smoking, (62.8%), a significant decline from 2004 (85.4%).

Figure 7-7. Percentage of Middle and High School Students Who Believe a High Proportion of Their Peers Smoke Cigarettes, 2004-2018 IYTS



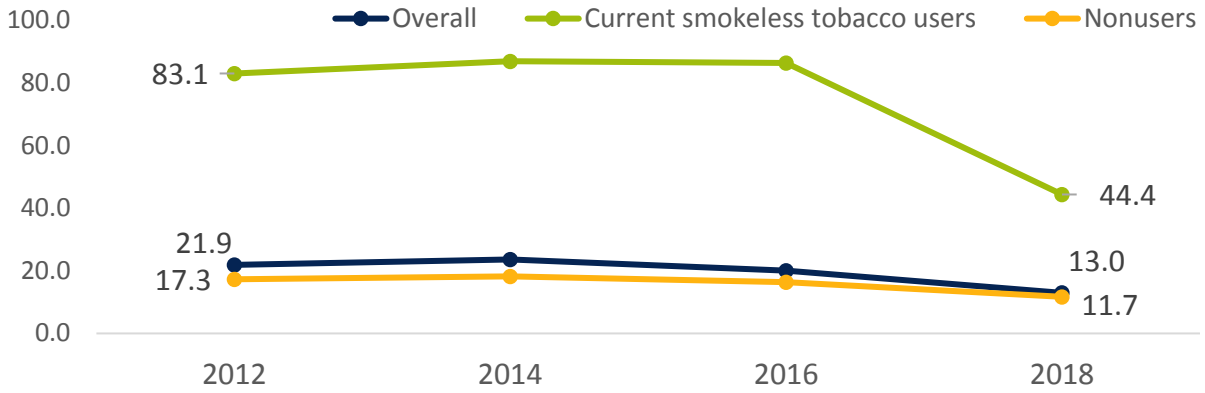
Data for middle school current smokers are not reported in 2016 due to insufficient sample size (n<50).

[aa] For high school students, high perceived peer smoking prevalence is defined as believing that 30 or more of every 100 students in their grade level smoke cigarettes. For middle school students, high perceived peer smoking prevalence is defined as believing that 20 or more of every 100 students in their grade level smoke cigarettes.

Friend Smokeless Tobacco Use

Like for cigarette smoking, the proportion of students who report having at least one friend who uses smokeless tobacco differs dramatically by current smokeless tobacco use status. In 2018, 13.0% of high school students overall reported having at least one friend who used smokeless tobacco. Among current smokeless tobacco users, however, 44.4% had at least one friend who also used smokeless tobacco, compared with only 11.7% of nonusers. Between 2012 and 2018, among high school students, there was a significant decline in the proportion of current smokeless users who had at least one friend who used smokeless tobacco.

Figure 7-8. Percentage of High School Students with at Least One Friend Who Uses Smokeless Tobacco, by Smokeless Tobacco Use Status, 2012-2018 IYTS*

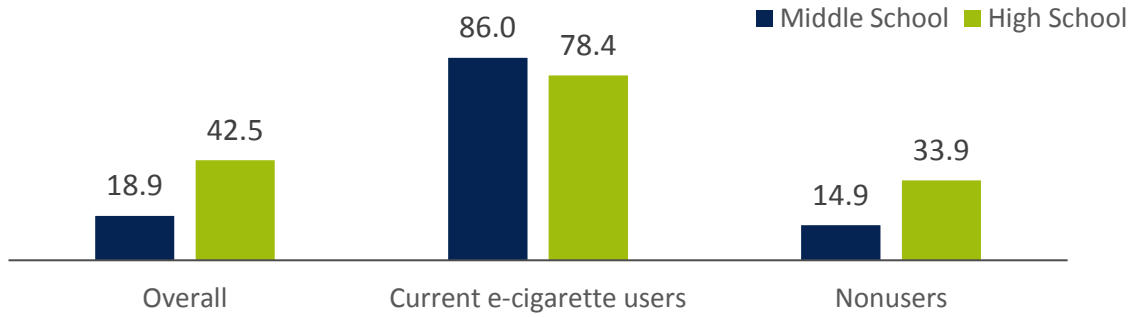


*Data for middle school students are not reported due to insufficient sample size (n<50) among smokeless tobacco users.

Friend E-cigarette Use

In 2018, 18.9% of middle school students and 42.5% of high school students reported having at least one friend who used e-cigarettes. Similar to cigarettes and smokeless tobacco, the proportion of students who reported having one or more friends who used e-cigarettes was far higher among e-cigarette users than nonusers. In particular, more than three in four high school e-cigarette users (78.4%) and four in five of middle school e-cigarette users (86.0%) had at least one friend who also used e-cigarettes. In contrast, only 33.9% of high school students and 14.9% of middle school students who did not use e-cigarettes reported having at least one friend who used e-cigarettes.

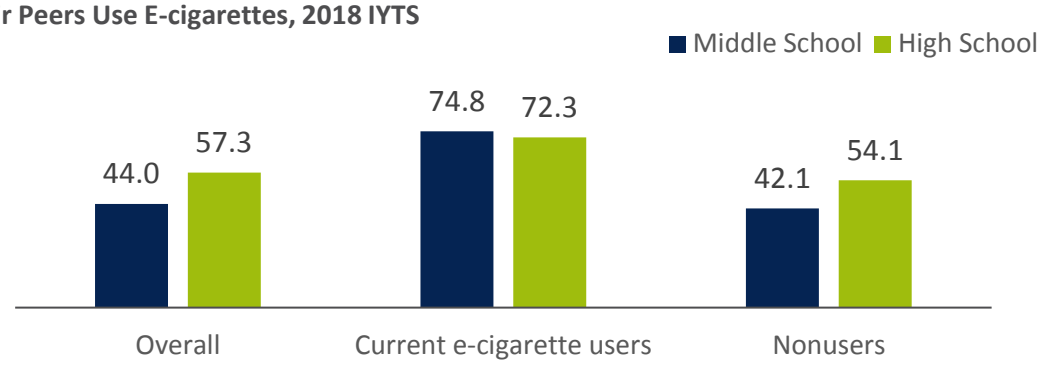
Figure 7-9. Percentage of Middle and High School Students with at Least One Friend Who Uses E-cigarettes, by E-cigarette Use Status, 2018 IYTS



Perceived Peer E-cigarette Use

In 2018, about 44.0% of middle school students and 57.3% of high school students believed a high proportion of their peers used e-cigarettes.[bb] Current e-cigarette users, however, were more likely to report high perceived peer e-cigarette use prevalence than nonusers. Nearly three in four middle school e-cigarette users (74.8%) and more than seven in 10 high school e-cigarette users (72.3%) reported that they believed a high proportion of their peers used e-cigarettes, compared to 42.1% of middle school nonusers and 54.1% of high school nonusers.

Figure 7-10. Percentage of Middle and High School Students Who Believe a High Proportion of Their Peers Use E-cigarettes, 2018 IYTS



Engagement in Tobacco Prevention Initiatives

Engaging youth in tobacco control efforts has long been a component of youth tobacco prevention initiatives. In 2018, about 15.7% of middle school youth and 11.9% of high school youth reported being involved in organized activities to prevent young people from using tobacco. In addition, other platforms such as social media are increasingly used to engage youth and share tobacco prevention messaging. Ultimately, augmenting traditional organized tobacco prevention efforts with social media and other platforms may have the potential to engage a broader scope of youth in tobacco prevention initiatives.

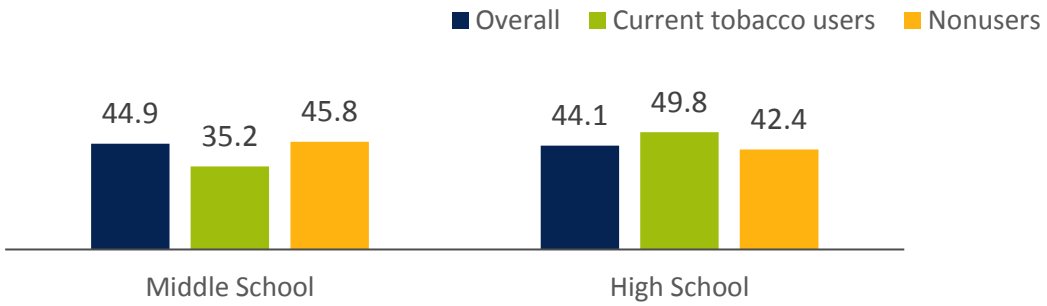
Figure 7-11. Percentage of Middle and High School Students Who Participated in Organized Tobacco Prevention Activities, 2018 IYTS

[bb] For high school students, high perceived peer e-cigarette use is defined as believing that 30 or more of every 100 students in their grade level use e-cigarettes. For middle school students, high perceived peer e-cigarette use is defined as believing that 20 or more of every 100 students in their grade level use e-cigarettes.

Parental Discussions about Tobacco Use

Among both middle and high school students, the overall proportion of students who indicated that their parents talked with them about not using tobacco was somewhat low, as only about 44.9% of middle school students and 44.1% of high school students reported that their parents talked with them in the past year about not using tobacco. Among high school students, a significantly higher proportion of tobacco users (49.8%) than nonusers (42.4%) reported that their parents talked to them about not using tobacco. There was not a significant difference, however, in parental conversations about tobacco between middle school tobacco users (35.2%) and nonusers (45.8%).

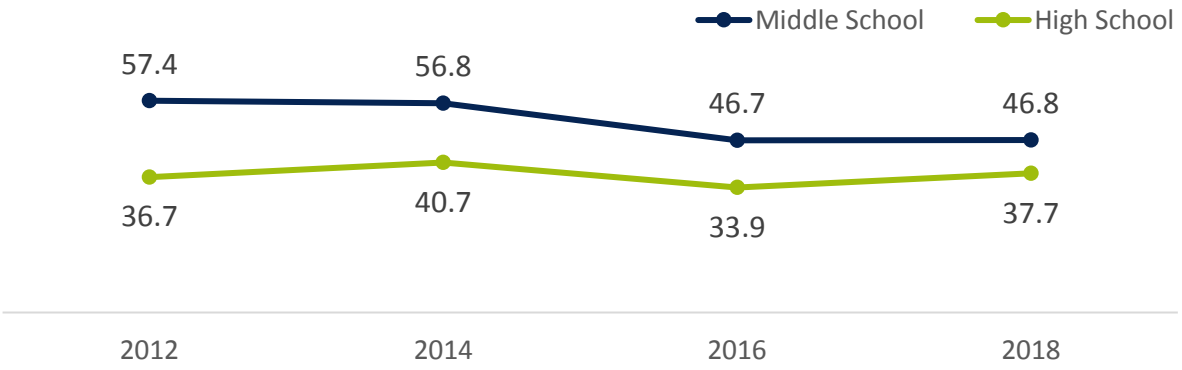
Figure 7-12. Percentage of Middle and High School Students Whose Parents Talked to Them in the Past 12 Months about Not Using Tobacco, 2018 IYTS



Education about Tobacco in Schools

In 2018, a higher proportion of middle school students (46.8%) than high school students (37.7%) reported being taught about why they should not use tobacco. Among middle school students, however, the proportion who report receiving tobacco prevention education in school declined significantly from 57.4% in 2012 to 46.8% in 2018. Among high school students, the proportion of students receiving tobacco prevention education in school was slightly but not significantly higher in 2018 (37.7%) than in 2012 (36.7%) and significantly higher than in 2016 (33.9%).

Figure 7-13. Percentage of Middle and High School Students Who Were Taught about Why They Should Not Use Tobacco during the Current School Year, 2012-2018 IYTS



Summary: Social Influences Related to Tobacco Use

Household Tobacco Use

Although use of many tobacco products has declined among Indiana youth, some Hoosier youth continue to be exposed to social influences that may make them more likely to start or continue using tobacco. In 2016, about four in 10 middle school youth and just under half of high school youth reported living with someone who used tobacco products of any kind. Additionally, students who lived with someone who used tobacco products were significantly more likely than students who did not live with a tobacco user to currently use tobacco themselves.

Peer Tobacco Use

Peer tobacco use also can influence youth tobacco use behaviors.[47] In 2016, 15.1% of middle school youth and 40.0% of high school youth had at least one friend who used cigarettes, e-cigarettes, or smokeless tobacco. Like household tobacco use, peer tobacco use was strongly associated with current tobacco use among youth. In 2016, middle school students with at least one friend who used cigarettes, e-cigarettes, or smokeless tobacco were nearly 11 times more likely to use tobacco than students who did not have friends who used these products. Similarly, high school students who had friends who used these tobacco products were more than five times more likely to be current tobacco users than students who did not have friends who used these products. Additionally, students who used tobacco products such as cigarettes and e-cigarettes were more likely than nonusers to believe that a high proportion of their peers used these products.

Tobacco Prevention

Although household and peer tobacco use can negatively influence youth tobacco use behaviors, other influences, such as parental and in-school education and other youth prevention initiatives, may help prevent youth tobacco use. In 2018, though, only about 44.9% of middle school students and 44.1% of high school students reported that their parents had talked with them in the past year about not using tobacco. Additionally, 46.8% of middle school students and 37.7% of high school students reported receiving tobacco prevention education in school. Finally, 15.7% of middle school students and 11.9% of high school students reported being involved in organized tobacco prevention activities.

8. Tobacco Marketing

In 2012, the Surgeon General's report on preventing youth tobacco use concluded that tobacco advertising increases the likelihood that youth will start using tobacco.[48] This section presents data on youth exposure to tobacco advertising and youth perceptions of tobacco company marketing.

Exposure to Tobacco Advertising

While some forms of tobacco advertising have been restricted, youth may continue to be exposed to tobacco advertising through a variety of channels. In particular, the tobacco industry now relies heavily on tobacco marketing at the point-of-sale, spending about 96.5% of its U.S. marketing budget in 2017 on point-of-sale marketing.[49,50] In 2018, two in three middle (66.5%) and seven in 10 high school (70.1%) students reported exposure to tobacco advertisements[cc] in retail settings, such as convenience stores, gas stations, and supermarkets. Although exposure to tobacco ads in retail settings has declined significantly among high school students and middle school students since 2012, the retail environment remains the most common medium through which Hoosier youth are exposed to tobacco marketing.

After retail stores, the Internet was the next most common medium through which youth reported exposure to tobacco marketing. Between 2012 and 2018, the prevalence of seeing tobacco ads on the Internet increased significantly among both middle and high school youth, with 42.8% of middle school students and 42.4% of high school students reporting exposure to tobacco ads on the Internet in 2018. Finally, about 16.9% of middle school students and 20.9% of high school students reported exposure to tobacco ads in newspapers or magazines in 2018, a significant decline from 31.6% and 40.3%, respectively, in 2012.

Figure 8-1. Percentage of Middle School Students Exposed to Tobacco Advertisements, by Marketing Type, 2012-2018 IYTS

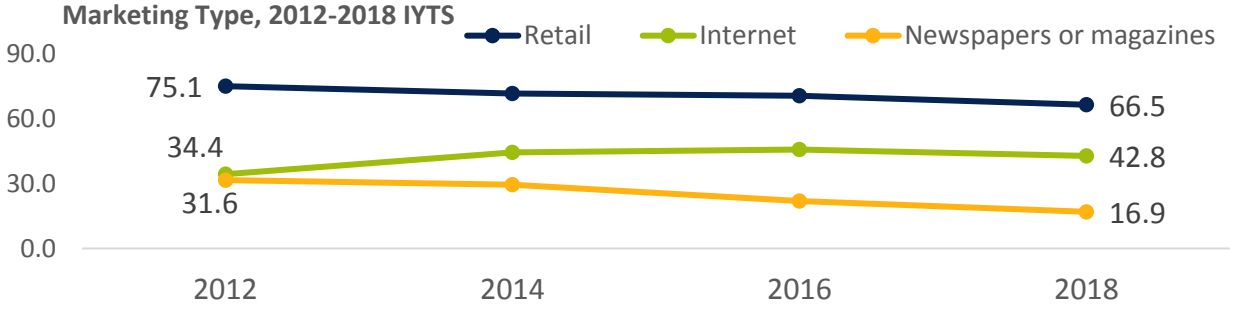
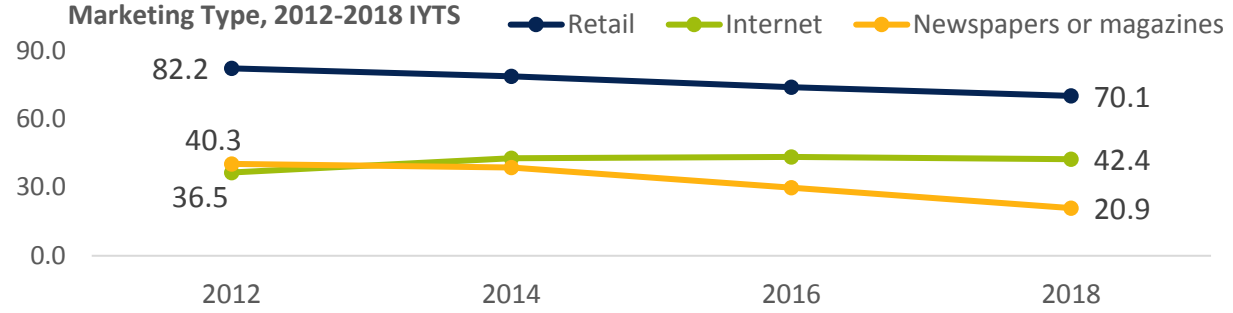


Figure 8-2. Percentage of High School Students Exposed to Tobacco Advertisements, by Marketing Type, 2012-2018 IYTS

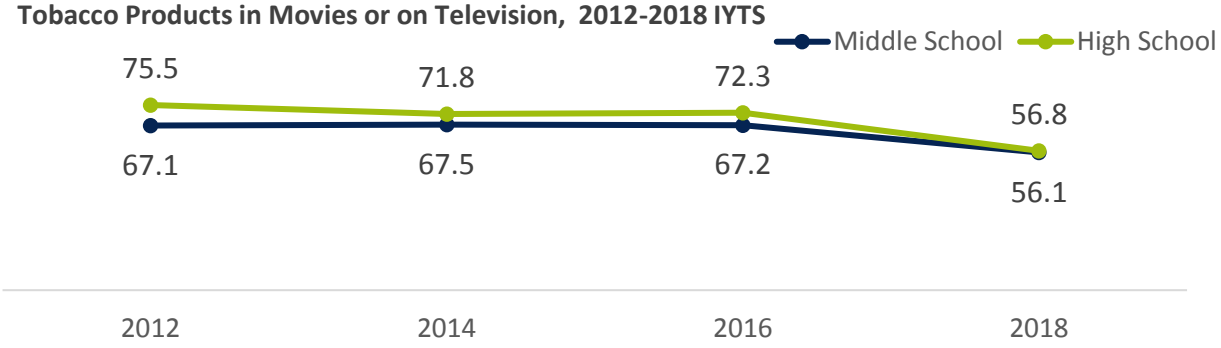


[cc] Exposure to tobacco advertisements is defined as seeing ads for tobacco products sometimes, most of the time, or always.

Exposure to Tobacco Use in Movies or Television

The 2012 Surgeon General's report on preventing youth tobacco use concluded that depictions of smoking in movies can increase the likelihood that youth will start smoking.[51] In 2018, over half of middle school (56.1%) and high school (56.8%) students reported seeing actors using tobacco products in movies or on television. Between 2012 and 2018 exposure to tobacco use in movies or on TV has significantly declined among both high school and middle school students, similarly, between 2016 and 2018 there has also been a significant decline among both middle school students and high school students who reported seeing actors using tobacco products in movies or on television.

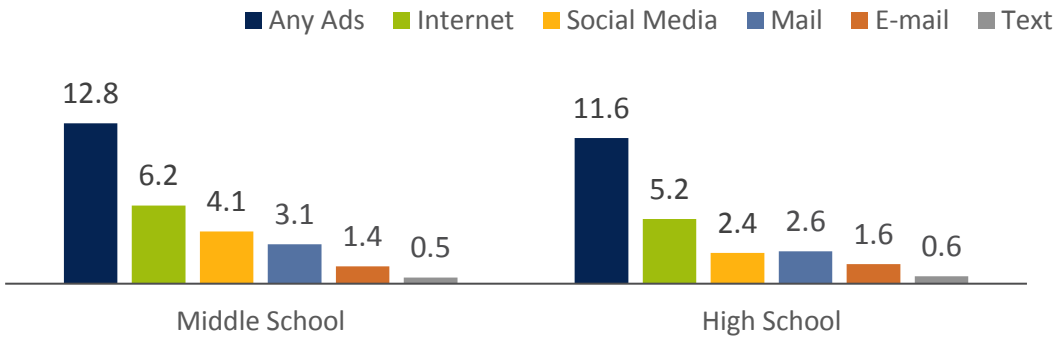
Figure 8-3. Percentage of Middle and High School Students Who Report Seeing Actors Using Tobacco Products in Movies or on Television, 2012-2018 IYTS



Direct Receipt of Tobacco Company Ads or Coupons

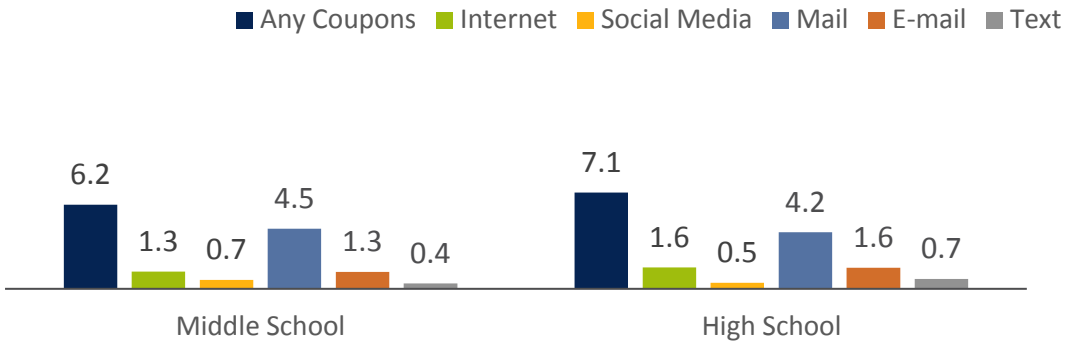
In addition to in-store, print, and Internet advertising, tobacco companies market their products by sending promotions and coupons directly to consumers through the mail, Internet, or other media. In 2018, about 12.8% of middle school students and 11.6% of high school students reported receiving any ads from tobacco companies (Figure 8-5), and about 6.2% of middle school students and 7.1% of high school students reported receiving any coupons from tobacco companies (Figure 8-6).[dd] The most common ways youth received these ads or coupons was generally through the mail, Internet, and social media. A somewhat smaller proportion of students reported receiving ads or coupons through e-mail or text messages.

Figure 8-4. Percentage of Middle and High School Students Who Received Ads from a Tobacco Company in the Past 30 Days, 2018 IYTS



[dd] Students could select one or more options for how they received tobacco company ads or coupons.

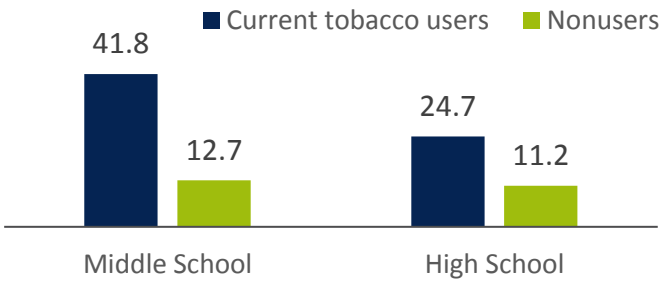
Figure 8-5. Percentage of Middle and High School Students Who Received Coupons from a Tobacco Company in the Past 30 Days, 2018 IYTS



Direct Receipt of Tobacco Company Ads or Coupons, by Tobacco Use Status

In 2018, current tobacco users were far more likely to report receiving tobacco company ads or coupons than nonusers. About 41.8% of middle school tobacco users and 24.7% of high school tobacco users reported receiving tobacco ads or coupons in the past 30 days, compared with only 12.7% of middle school students and 11.2% of high school students who did not use tobacco.

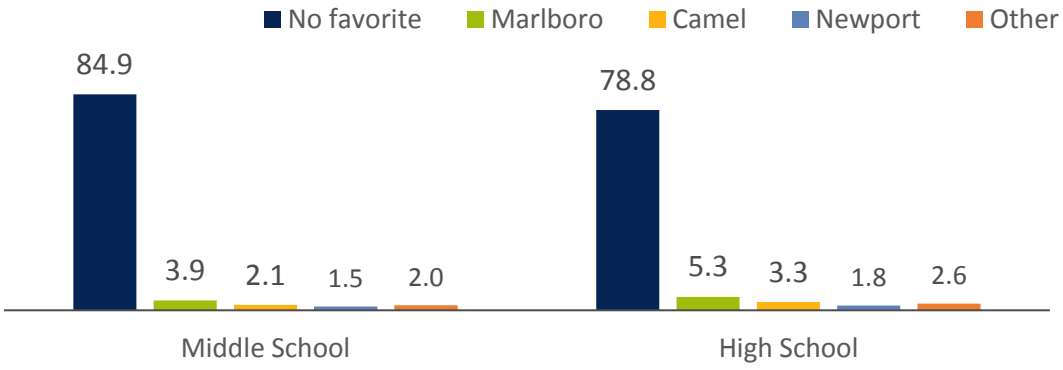
Figure 8-6. Percentage of Middle and High School Youth Who Received Tobacco Ads or Coupons in the Past 30 Days, by Tobacco Use Status, 2018 IYTS



Brand of Favorite Cigarette Ad

Overall, more than eight in 10 middle school students (84.9%) and eight in 10 high school students (78.8%) indicated that they did not have a favorite cigarette ad. Youth who did indicate a favorite ad, however, most commonly reported that Marlboro or Camel were the brands associated with those ads. This is unsurprising, as Marlboro and Camel are among the most heavily advertised brands in the United States.[52]

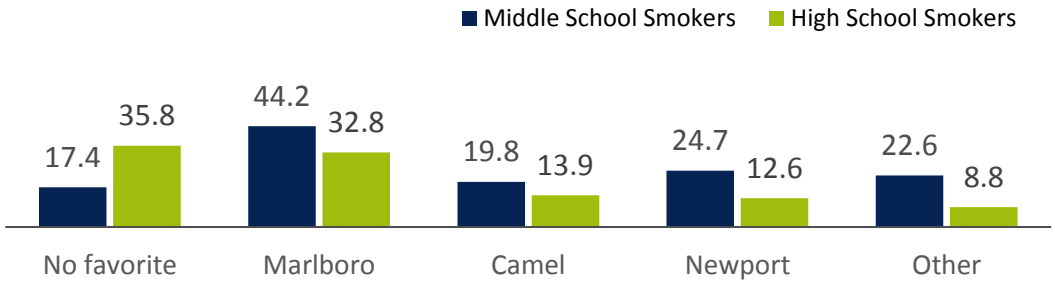
Figure 8-7. Brand of Favorite Cigarette Ad among Middle and High School Students, 2018 IYTS



Brand of Favorite Cigarette Ad among Current Smokers

While most students overall indicated that they did not have a favorite cigarette ad, only about one in three high school smokers (35.8%) and nearly one in five middle school smokers (17.4%) indicated that they did not have a favorite cigarette ad. Among students who had a favorite ad, Marlboro ads were by far the most popular, with one third of current high school smokers (32.8%) and nearly half of middle school smokers (44.2%) indicating that Marlboro was the brand of their favorite cigarette ad. The next most popular ad brands among middle school and high school smokers were Camel (19.8% and 13.9% respectively) and Newport (24.7% and 12.6%).

Figure 8-8. Brand of Favorite Cigarette Ad among High School and Middle School Smokers, 2018 IYTS



Beliefs about Tobacco Company Marketing to Young People

In 2018, about nearly seven in 10 middle school (68.4%) and high school (66.5%) youth overall indicated that they believed tobacco companies try to get young people under age 18 to use tobacco products. Middle school tobacco users (64.0%), were slightly less likely than nonusers (68.8%) to believe that tobacco companies try to get youth to use tobacco. In contrast, high school tobacco users (59.4%) were significantly less likely than nonusers (68.6%) to believe that tobacco companies try to get youth to use tobacco.

Despite a drop in 2014, the proportion of middle school students who believe tobacco companies try to get youth to use tobacco has not changed substantially since 2012, although there was a significant increase between 2016 and 2018 (61.6% to 68.4%). Similarly, the proportion of high school students who believe tobacco companies try to get youth to use tobacco has not significantly increased since 2012 but did significantly increase from 2016 to 2018 (58.3% to 66.5%).

Figure 8-9. Percentage of Middle School Students Who Believe Tobacco Companies Try to Get Young People Under 18 to Use Tobacco Products, 2012-2018 IYTS

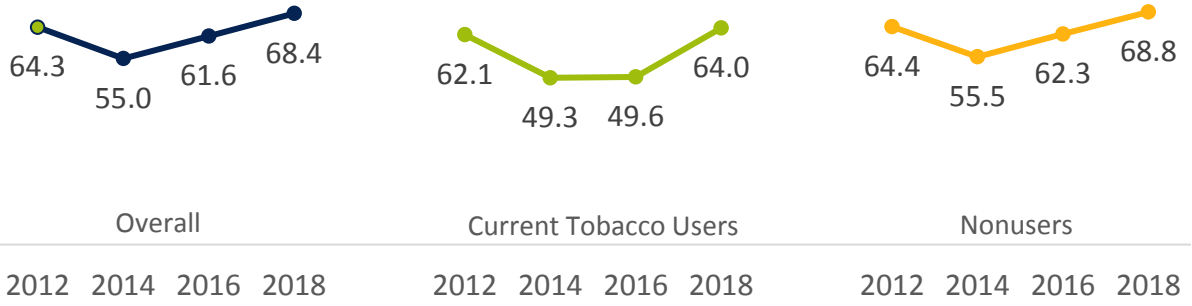
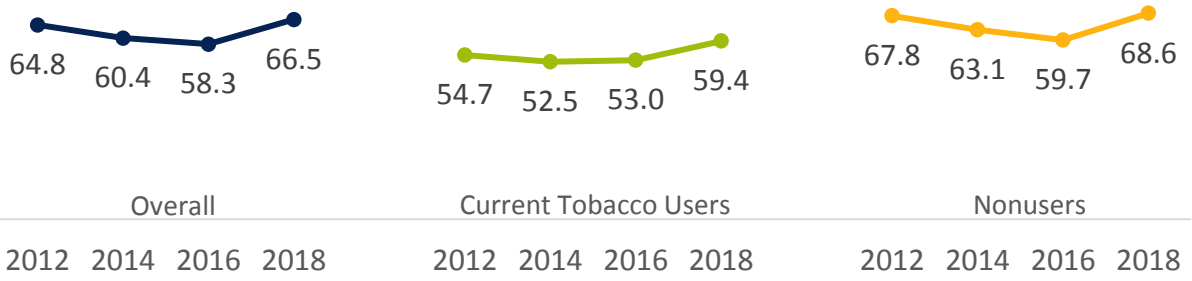


Figure 8-10. Percentage of High School Students Who Believe Tobacco Companies Try to Get Young People Under 18 to Use Tobacco Products, 2012-2018 IYTS



Summary: Tobacco Marketing

Tobacco Marketing Exposure

Although some forms of tobacco advertising, such as billboards, television ads, and sponsorships, have been restricted, youth continue to be exposed to tobacco marketing through a variety of channels. In 2017, the tobacco industry spent nearly 96.5% of its marketing budget on point-of-sale marketing tactics,[53,54] and in 2018 the retail setting was the most common way Hoosier youth reported being exposed to tobacco advertising. More than two in three middle and seven in 10 high school students reported seeing tobacco ads or promotions in retail settings in 2018. In comparison, just over four in 10 middle and high school students reported seeing tobacco ads on the Internet, and about two in 10 middle school students and two in 10 high school students reported seeing tobacco ads in newspapers or magazines. Another 15.0% of middle school students and 14.3% of high school students reported receiving tobacco company ads or coupons through other means, such as the mail, Internet, or social media. Finally, in addition to direct tobacco advertising, youth continue to report high levels of exposure to portrayals of tobacco use in the media, as more than five in 10 middle and high school youth reported seeing actors using tobacco products on TV or in movies. Overall, the persistent exposure of Hoosier youth to these forms of advertising is concerning because exposure to tobacco marketing has been shown to increase the likelihood that youth will use tobacco products.[55]

Perceptions of Tobacco Company Advertising

In 2018, students' perceptions of tobacco advertising differed somewhat by current tobacco use status. While most students overall indicated that they did not have a favorite cigarette ad, only about 36% of high school smokers did not have a favorite cigarette ad. Furthermore, the most heavily advertised brands in the U.S., Marlboro and Camel,[56] were also the brands Hoosier students most commonly cited as being associated with their favorite cigarette ad.

Finally, a common theme in youth tobacco prevention messaging is tobacco companies' targeting of youth. In 2018, about seven in 10 middle and high school students indicated that they believed tobacco companies try to get youth to use tobacco products. This proportion, however, was still short of the Indiana Tobacco Control 2020 Strategic Plan targets for this measure. Furthermore, the proportion of high school students who believe tobacco companies target young people has declined significantly in recent years, indicating a continued need to raise awareness of tobacco marketing tactics aimed at youth.

9. Perceptions, Attitudes, and Beliefs Related to Tobacco

In addition to assessing youth tobacco use, monitoring youth perceptions, attitudes, and beliefs related to tobacco use is important for assessing the short-term impact of efforts to prevent youth tobacco initiation. This section presents data on youth perceptions, attitudes, and beliefs related to tobacco.

Susceptibility to Cigarette Smoking

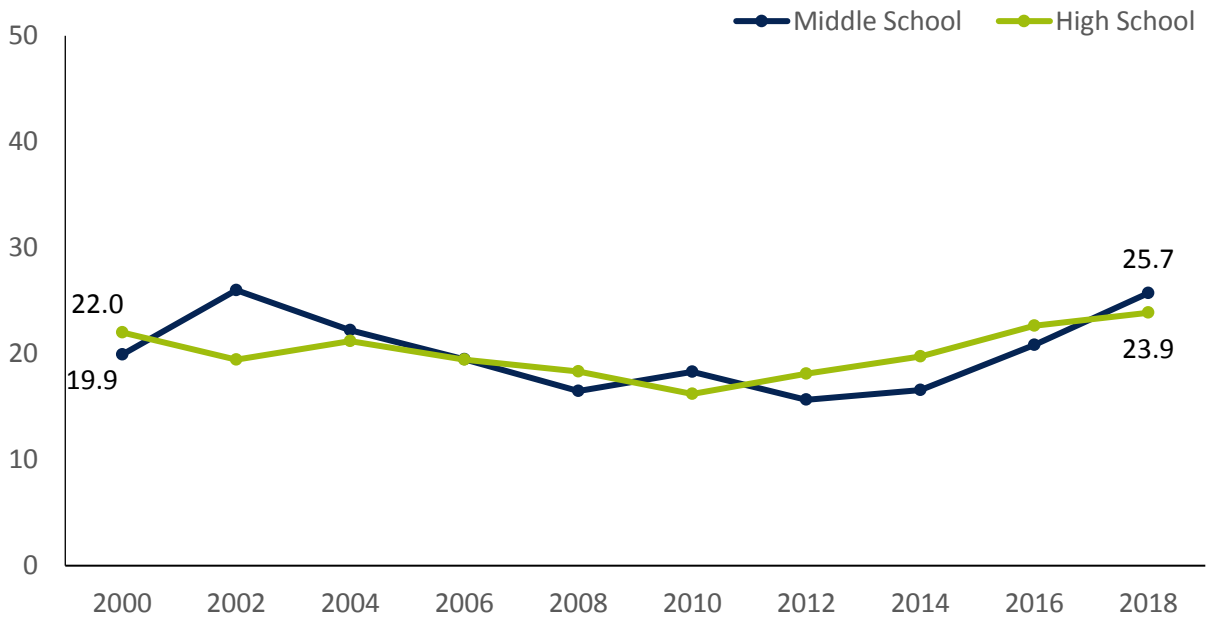
Research has shown that students who indicate susceptibility or openness to smoking may be more likely to eventually start smoking.[57, 58] On the IYTS, susceptibility to smoking is defined by students' responses to three questions:

- "Do you think that you will try a cigarette soon?"
- "Do you think that you will smoke a cigarette at any time during the next year?"
- "If one of your best friends offered you a cigarette, would you smoke it?"

Students who have never smoked and did not answer "no" or "definitely not" to all three questions were considered to be susceptible to cigarette smoking.

In 2018, 25.7% of middle school never smokers and 23.9% of high school never smokers were susceptible to smoking cigarettes. Among middle school students this proportion has significantly increased since 2000 (from 19.9% to 25.7%), but among high school students there has been little overall change in non-smokers' susceptibility to cigarette smoking between 2000 and 2018.

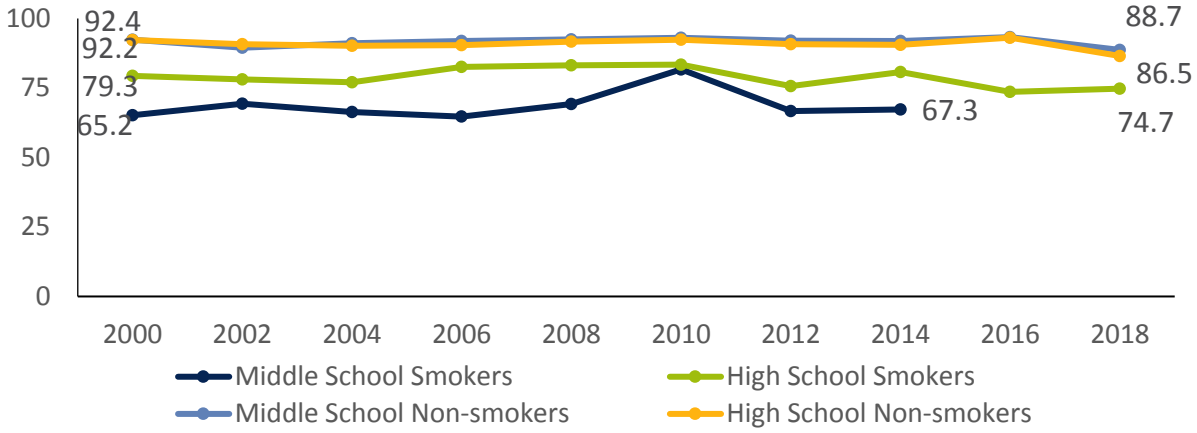
Figure 9-1. Percentage of Middle and High School Students Who Have Never Smoked and Are Susceptible to Smoking Cigarettes, 2000-2018 IYTS



Social Perceptions of Cigarette Smoking

Between 2000 and 2018, a consistently high proportion of middle and high school students did not believe that smoking makes young people look cool or fit in. In 2018, nearly nine in 10 middle school (88.7%) and high school (86.5%) non-smokers did not believe that smoking makes young people look cool or fit in. The majority of current smokers in middle school (67.3% in 2014) and high school (74.7% in 2018) also did not believe that smoking makes young people look cool or fit in, but this proportion was consistently lower than among non-smokers between 2000 and 2018.

Figure 9-2. Percentage of Middle and High School Students Who Do Not Believe Smoking Makes Young People Look Cool or Fit In, by Smoking Status, 2000-2018 IYTS

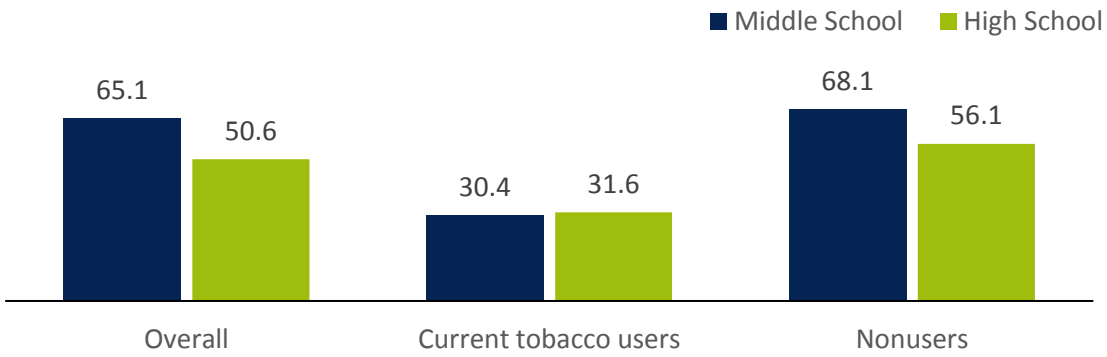


Data for middle school current smokers are not reported in 2016 or 2018 due to insufficient sample size (n<50).

Perceived Harm of All Tobacco Products

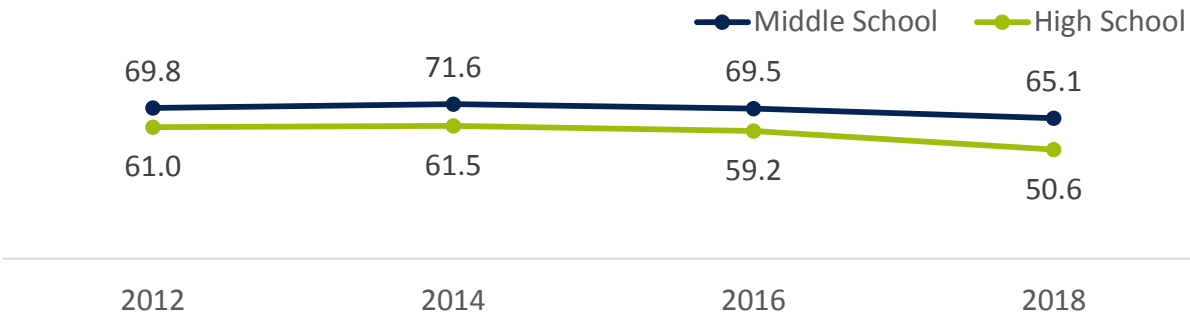
In 2018, about six in 10 middle school students (65.1%) and five in 10 high school students (50.6%) strongly agreed that all tobacco products are dangerous. Only about one in three middle school (30.4%) and high school (31.6%) tobacco users, however, strongly agreed that all tobacco products are dangerous, compared with about seven in 10 middle school students (68.1%) and more than five in 10 high school students (56.1%) who did not use tobacco.

Figure 9-3. Percentage of Middle and High School Students Who Strongly Agree That All Tobacco Products Are Dangerous, by Tobacco Use Status, 2018 IYTS



Since 2012, the percentage of middle school and high school students who agree that all tobacco products are dangerous has significantly declined. Among middle school students the percentage who strongly agree all tobacco products are dangerous has remained unchanged between 2012 and 2016, however in 2018 that percentage declined slightly from 69.5% to 65.1%. Similarly, among high school students the percentage who strongly agree that all tobacco products are dangerous has remained unchanged, however between 2016 and 2018 there was significant decline from 59.2% to 50.6% who strongly agree that all tobacco products are dangerous.

Figure 9-4: Percentage of Middle School and High School Students Who Strongly Agree That All Tobacco Products Are Dangerous, 2012-2018 IYTS



Summary: Perceptions, Attitudes, and Beliefs Related to Tobacco

Beliefs about Future Cigarette Use

In 2018, about one in four middle and high school youth who had never smoked were susceptible to smoking cigarettes. Furthermore, the proportion of never smokers who are susceptible to smoking has remained relatively unchanged since 2000.

Social Perceptions of Cigarette Smoking

In 2018, social perceptions of cigarette smoking among Hoosier youth were somewhat mixed. Overall, most students did not believe that there were social benefits to smoking, as the majority of youth did not believe that smoking makes young people look cool or fit in or that smokers have more friends.

Perceived Harm of Tobacco Products

Despite this awareness, fewer than seven in 10 middle school students and five in 10 high school students indicated they strongly agreed that all tobacco products are dangerous. Among tobacco users in high school and middle school that percentage decreases further to approximately three in 10. Between 2012 and 2018, there was significant decline in the number of middle school students and high school students who strongly agree that all tobacco products are dangerous.

Appendix: Tobacco Use among Middle and High School Students, IYTS 2000-2018

Table A-1. Ever Use of Any Tobacco Product†* among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	17.7% [14.3, 21.0]	18.7% [15.8, 21.6]	16.6% [13.6, 19.7]	21.4% [17.8, 25.0]
Gender				
Male	18.2% [14.9, 21.6]	21.1% [17.8, 24.4]	17.0% [12.8, 21.3]	23.1% [18.9, 27.2]
Female	16.9% [12.6, 21.2]	15.9% [12.0, 19.8]	15.9% [12.9, 19.0]	19.8% [16.1, 23.5]
Race/Ethnicity				
White	16.6% [13.1, 20.2]	17.8% [14.3, 21.3]	14.7% [11.1, 18.3]	20.4% [16.8, 24.0]
Black	21.4% [15.6, 27.2]	19.3% [11.9, 26.7]	21.1% [15.3, 26.8]	27.7% [20.8, 34.6]
Hispanic	17.8% [14.0, 21.7]	22.3% [16.3, 28.3]	23.6% [18.7, 28.5]	21.3% [16.3, 26.2]
Grade				
6th	9.5% [7.0, 12.1]	13.1% [9.4, 16.9]	13.7% [7.3, 20.1]	11.7% [6.8, 16.5]
7th	15.9% [11.4, 20.5]	18.9% [13.7, 24.0]	13.1% [9.1, 17.2]	24.0% [20.4, 27.6]
8th	27.9% [22.1, 33.6]	24.1% [19.2, 29.0]	21.8% [16.6, 27.0]	29.0% [24.2, 33.8]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	44.7% [41.1, 48.4]	45.5% [39.8, 51.2]	41.2% [37.6, 44.9]	45.4% [42.0, 48.9]
Gender				
Male	51.1% [47.8, 54.4]	45.6% [39.6, 51.7]	42.6% [38.5, 46.6]	45.7% [42.1, 49.4]
Female	38.0% [31.9, 44.1]	45.4% [38.9, 51.8]	40.3% [35.9, 44.6]	45.0% [40.5, 49.4]
Race/Ethnicity				
White	45.3% [40.9, 49.8]	46.1% [39.5, 52.8]	40.9% [37.2, 44.6]	46.3% [42.6, 49.9]
Black	43.0% [35.0, 51.0]	43.1% [33.8, 52.4]	43.0% [34.8, 51.1]	45.4% [39.5, 51.3]
Hispanic	47.5% [41.2, 53.8]	43.4% [38.6, 48.2]	44.2% [36.7, 51.7]	41.1% [35.5, 46.7]
Grade				
9th	34.2% [27.7, 40.6]	36.7% [31.2, 42.2]	34.8% [29.3, 40.4]	35.3% [31.9, 38.7]
10th	40.3% [36.5, 44.0]	38.2% [32.1, 44.2]	36.7% [31.8, 41.7]	41.8% [38.8, 44.9]
11th	50.0% [43.8, 56.1]	46.9% [40.6, 53.1]	42.0% [37.5, 46.4]	49.0% [44.4, 53.6]
12th	55.3% [48.8, 61.8]	61.3% [53.8, 68.8]	52.4% [46.2, 58.7]	56.4% [50.4, 62.5]

†Defined as ever use of cigarettes, cigars, smokeless tobacco, e-cigarettes, hookahs, pipes, bidis, snus, or dissolvable tobacco.

* In 2018, ever use of bidis was not measured.

Table A-2. Current (Past 30-Day) Use of Any Tobacco Product†* among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	6.6% [5.1, 8.2]	7.9% [6.1, 9.8]	4.9% [3.5, 6.4]	8.1% [6.3, 10.0]
Gender				
Male	6.9% [5.1, 8.7]	9.4% [7.2, 11.6]	4.6% [3.2, 6.1]	8.1% [6.0, 10.1]
Female	6.4% [4.5, 8.2]	6.2% [4.2, 8.2]	5.2% [3.4, 7.0]	8.2% [5.9, 10.6]
Race/Ethnicity				
White	6.1% [4.4, 7.8]	7.3% [5.0, 9.6]	4.8% [3.0, 6.6]	7.7% [5.8, 9.6]
Black	5.9% [3.7, 8.1]	8.7% [3.9, 13.4]	5.6% [2.3, 8.8]	8.8% [5.0, 12.5]
Hispanic	9.3% [5.4, 13.3]	11.3% [6.3, 16.3]	7.0% [3.8, 10.2]	9.6% [6.7, 12.4]
Grade				
6th	2.7% [1.2, 4.1]	5.0% [2.3, 7.6]	3.0% [1.3, 4.6]	4.1% [1.4, 6.7]
7th	5.7% [3.8, 7.5]	7.7% [5.1, 10.2]	3.5% [1.6, 5.3]	8.9% [6.5, 11.2]
8th	11.7% [8.5, 14.8]	11.1% [7.5, 14.6]	7.3% [4.1, 10.6]	11.5% [8.8, 14.1]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	23.0% [20.1, 25.8]	26.6% [21.9, 31.3]	20.3% [17.1, 23.5]	22.9% [19.8, 26.1]
Gender				
Male	28.2% [24.5, 32.0]	30.2% [24.3, 36.1]	22.8% [18.8, 26.7]	25.1% [21.1, 29.1]
Female	17.3% [13.5, 21.0]	22.8% [18.9, 26.6]	17.9% [14.0, 21.7]	20.6% [17.2, 24.0]
Race/Ethnicity				
White	23.6% [20.5, 26.8]	28.3% [23.0, 33.6]	20.8% [17.7, 23.9]	24.4% [21.4, 27.4]
Black	17.4% [10.8, 24.0]	18.2% [14.0, 22.3]	17.3% [11.7, 23.0]	18.6% [14.2, 23.1]
Hispanic	23.7% [18.0, 29.5]	22.3% [15.6, 29.0]	19.5% [14.1, 25.0]	21.1% [15.7, 26.6]
Grade				
9th	15.1% [10.7, 19.6]	20.2% [16.6, 23.8]	13.0% [9.7, 16.2]	16.2% [13.0, 19.5]
10th	19.1% [16.5, 21.7]	21.0% [15.4, 26.6]	20.4% [15.7, 25.1]	20.8% [16.0, 25.7]
11th	27.3% [21.0, 33.6]	27.1% [22.6, 31.7]	17.6% [13.2, 22.0]	24.8% [20.7, 29.0]
12th	31.1% [25.9, 36.4]	38.8% [28.1, 49.5]	30.9% [26.5, 35.3]	30.5% [24.0, 36.9]

†Defined as use of cigarettes, cigars, smokeless tobacco, e-cigarettes, hookahs, pipes, bidis, snus, or dissolvable tobacco on one or more of the past 30 days.

* In 2018, current use of bidis was not measured.

Table A-3. Ever Use of Combustible Tobacco† among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	15.9% [12.8, 19.0]	13.8% [11.0, 16.5]	11.8% [9.6, 14.0]	12.7% [9.9, 15.5]
Gender				
Male	15.8% [12.9, 18.7]	14.4% [11.4, 17.5]	11.9% [8.9, 15.0]	12.8% [9.7, 15.9]
Female	15.7% [11.5, 19.9]	12.9% [9.3, 16.5]	11.8% [8.9, 14.6]	12.5% [9.4, 15.6]
Race/Ethnicity				
White	14.8% [11.6, 18.0]	12.8% [9.7, 15.9]	10.0% [7.5, 12.5]	11.0% [8.5, 13.4]
Black	20.1% [14.7, 25.5]	14.9% [8.9, 21.0]	16.0% [11.4, 20.6]	20.9% [14.5, 27.3]
Hispanic	16.6% [12.5, 20.7]	17.9% [12.3, 23.5]	18.7% [15.1, 22.3]	15.0% [10.0, 19.9]
Grade				
6th	7.7% [5.3, 10.0]	8.7% [5.0, 12.4]	8.3% [5.1, 11.6]	4.8% [1.7, 7.8]
7th	14.4% [10.0, 18.7]	14.5% [9.9, 19.1]	9.2% [6.0, 12.4]	15.0% [12.3, 17.8]
8th	25.8% [20.4, 31.2]	18.2% [13.9, 22.6]	16.7% [12.0, 21.4]	18.5% [14.4, 22.5]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	42.7% [39.0, 46.4]	40.3% [34.7, 45.9]	34.0% [30.2, 37.8]	29.0% [25.2, 32.8]
Gender				
Male	47.9% [44.3, 51.4]	40.8% [34.4, 47.3]	34.8% [30.4, 39.1]	29.4% [24.7, 34.0]
Female	37.3% [31.6, 43.1]	39.7% [33.6, 45.8]	33.6% [29.0, 38.2]	28.5% [24.1, 32.9]
Race/Ethnicity				
White	42.8% [38.2, 47.4]	41.0% [34.6, 47.4]	33.6% [29.8, 37.5]	28.2% [23.9, 32.4]
Black	43.0% [35.0, 51.0]	37.4% [28.2, 46.6]	37.8% [28.0, 47.5]	33.4% [27.6, 39.3]
Hispanic	46.6% [40.6, 52.6]	36.8% [30.4, 43.2]	36.6% [29.3, 43.9]	27.2% [23.0, 31.5]
Grade				
9th	32.5% [26.0, 39.1]	30.7% [25.8, 35.5]	26.4% [21.2, 31.6]	20.8% [16.1, 25.4]
10th	38.2% [34.4, 42.0]	32.8% [26.3, 39.3]	28.1% [23.5, 32.6]	22.2% [18.0, 26.4]
11th	47.8% [41.6, 54.0]	40.5% [35.0, 46.1]	34.7% [30.2, 39.3]	32.7% [28.0, 37.4]
12th	53.0% [46.9, 59.2]	58.1% [49.2, 66.9]	48.2% [42.0, 54.4]	41.2% [36.0, 46.4]

†Defined as ever use of cigarettes, cigars, pipes, hookahs, or bidis. Ever use of bidis was not measured in 2018.

Table A-4. Current (Past 30-Day) Use of Combustible Tobacco† among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	5.3% [3.9, 6.7]	4.4% [3.2, 5.7]	3.0% [1.9, 4.1]	3.6% [2.3, 4.9]
Gender				
Male	5.4% [3.8, 7.0]	4.7% [3.1, 6.3]	2.9% [1.7, 4.2]	3.2% [1.9, 4.4]
Female	5.1% [3.5, 6.7]	4.1% [2.7, 5.5]	3.1% [1.5, 4.7]	4.0% [2.3, 5.7]
Race/Ethnicity				
White	4.7% [3.2, 6.3]	4.1% [2.7, 5.5]	2.6% [1.2, 3.9]	3.2% [2.0, 4.3]
Black	5.0% [3.0, 7.1]	4.7% [1.5, 8.0]*	4.8% [2.2, 7.4]	5.5% [1.2, 9.8]*
Hispanic	8.5% [5.0, 12.1]	6.7% [3.4, 10.0]	4.8% [2.9, 6.8]	4.6% [2.5, 6.7]
Grade				
6th	1.5% [0.6, 2.4]	1.7% [0.1, 3.2]*	0.8% [0.0, 1.6]*	1.1% [0.0, 2.3]*
7th	4.9% [3.3, 6.4]	4.4% [2.4, 6.4]	2.3% [1.0, 3.7]	4.1% [1.9, 6.3]
8th	9.6% [6.5, 12.7]	7.3% [4.5, 10.0]	5.1% [2.5, 7.7]	5.5% [3.8, 7.3]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	20.3% [17.5, 23.2]	18.6% [14.8, 22.3]	14.4% [11.8, 17.1]	10.1% [8.2, 11.9]
Gender				
Male	24.1% [20.5, 27.7]	19.6% [15.7, 23.5]	15.8% [12.7, 18.8]	10.8% [8.9, 12.8]
Female	16.4% [12.9, 19.9]	17.3% [13.8, 20.8]	13.2% [9.9, 16.6]	9.1% [6.7, 11.4]
Race/Ethnicity				
White	20.8% [17.5, 24.1]	19.6% [15.6, 23.6]	14.4% [11.7, 17.1]	10.1% [8.1, 12.1]
Black	16.9% [10.5, 23.3]	12.6% [8.9, 16.3]	15.1% [9.0, 21.2]	12.2% [8.7, 15.8]
Hispanic	21.5% [16.3, 26.7]	15.6% [9.9, 21.3]	15.1% [10.9, 19.3]	7.5% [5.2, 9.8]
Grade				
9th	13.3% [9.1, 17.4]	12.9% [9.8, 16.1]	8.7% [6.0, 11.5]	7.2% [4.7, 9.7]
10th	16.0% [13.4, 18.5]	15.3% [10.0, 20.7]	14.3% [10.7, 17.8]	6.8% [4.3, 9.2]
11th	23.8% [17.8, 29.7]	17.7% [14.4, 21.0]	13.2% [9.6, 16.7]	10.9% [8.4, 13.4]
12th	29.2% [24.0, 34.4]	28.5% [19.9, 37.2]	22.1% [17.4, 26.9]	15.7% [11.4, 20.1]

†Defined as use of cigarettes, cigars, pipes, hookahs, or bidis on one or more of the past 30 days. Current use of bidis was not measured in 2018.

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-5. Ever Use of Noncombustible Tobacco† among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	7.6% [5.8, 9.4]	14.0% [11.6, 16.4]	12.5% [10.1, 14.9]	17.2% [14.3, 20.2]
Gender				
Male	9.5% [7.0, 12.1]	16.6% [13.4, 19.8]	12.5% [9.4, 15.6]	18.5% [15.0, 22.0]
Female	5.6% [4.0, 7.2]	11.1% [8.1, 14.1]	12.1% [9.5, 14.7]	15.9% [13.0, 18.9]
Race/Ethnicity				
White	8.1% [5.8, 10.4]	13.7% [11.1, 16.4]	11.6% [8.4, 14.8]	17.3% [14.1, 20.4]
Black	4.2% [1.6, 6.9]	11.1% [6.0, 16.1]	12.1% [7.2, 17.0]	18.3% [14.1, 22.4]
Hispanic	5.4% [2.6, 8.2]	16.6% [11.2, 22.1]	17.0% [12.7, 21.2]	16.7% [12.8, 20.6]
Grade				
6th	4.6% [2.1, 7.0]	10.5% [7.6, 13.5]	9.6% [3.9, 15.3]	10.1% [5.7, 14.5]
7th	6.3% [4.3, 8.3]	12.8% [8.4, 17.3]	10.1% [6.9, 13.3]	18.5% [14.9, 22.0]
8th	12.0% [9.0, 15.0]	18.5% [14.1, 22.9]	16.5% [12.1, 20.9]	23.4% [19.5, 27.3]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	21.9% [19.2, 24.6]	33.2% [28.2, 38.3]	30.9% [27.9, 34.0]	37.7% [33.9, 41.4]
Gender				
Male	30.4% [27.3, 33.5]	36.3% [30.2, 42.3]	33.0% [29.2, 36.7]	38.8% [34.5, 43.1]
Female	13.0% [9.3, 16.8]	30.0% [25.3, 34.8]	29.2% [26.0, 32.3]	36.7% [32.2, 41.2]
Race/Ethnicity				
White	25.7% [22.6, 28.8]	35.9% [29.9, 42.0]	32.7% [29.6, 35.9]	41.0% [37.4, 44.6]
Black	6.9% [3.2, 10.7]	19.1% [15.0, 23.1]	18.8% [14.0, 23.7]	26.5% [19.0, 34.0]
Hispanic	16.6% [10.5, 22.6]	28.2% [22.4, 33.9]	34.4% [26.5, 42.3]	32.7% [26.5, 38.9]
Grade				
9th	16.3% [12.5, 20.1]	26.5% [22.1, 31.0]	25.5% [21.3, 29.6]	27.8% [25.4, 30.2]
10th	19.9% [16.9, 23.0]	26.6% [20.7, 32.5]	30.5% [25.7, 35.3]	36.7% [33.0, 40.4]
11th	25.0% [19.0, 31.1]	34.1% [28.0, 40.2]	30.8% [24.4, 37.3]	40.1% [35.3, 44.9]
12th	27.0% [21.7, 32.3]	46.3% [37.5, 55.2]	37.6% [33.9, 41.3]	46.8% [39.0, 54.5]

†Defined as ever use of smokeless tobacco (chewing tobacco, snuff, or dip), e-cigarettes, snus, or dissolvable tobacco.

Table A-6. Current (Past 30-Day) Use of Noncombustible Tobacco† among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	2.9% [2.1, 3.6]	6.6% [4.9, 8.2]	3.7% [2.5, 4.9]	6.8% [5.4, 8.1]
Gender				
Male	3.0% [1.9, 4.2]	7.8% [5.8, 9.7]	3.4% [2.2, 4.7]	7.1% [5.4, 8.8]
Female	2.7% [1.7, 3.8]	5.2% [3.2, 7.2]	3.9% [2.4, 5.4]	6.4% [4.5, 8.2]
Race/Ethnicity				
White	3.0% [2.1, 3.9]	6.1% [4.0, 8.2]	4.0% [2.4, 5.5]	6.6% [5.1, 8.1]
Black	1.4% [0.0, 2.9]*	6.5% [2.5, 10.5]	2.4% [0.0, 4.9]*	5.2% [2.6, 7.8]
Hispanic	2.7% [0.8, 4.7]*	8.5% [4.2, 12.8]	5.1% [2.5, 7.7]	7.6% [5.2, 9.9]
Grade				
6th	1.6% [0.4, 2.9]*	4.5% [2.0, 7.1]	2.7% [1.1, 4.3]	3.7% [1.2, 6.2]*
7th	2.4% [1.2, 3.5]	6.4% [3.9, 9.0]	2.3% [0.9, 3.7]	7.6% [5.5, 9.7]
8th	4.7% [3.0, 6.4]	8.7% [5.8, 11.6]	5.5% [2.6, 8.4]	9.0% [6.7, 11.3]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	9.4% [8.0, 10.8]	20.4% [16.1, 24.7]	14.4% [11.8, 16.9]	20.2% [17.1, 23.3]
Gender				
Male	14.2% [11.5, 16.9]	24.9% [19.0, 30.7]	16.8% [13.1, 20.5]	22.2% [18.2, 26.2]
Female	4.3% [2.9, 5.7]	15.7% [12.4, 19.0]	11.9% [9.6, 14.3]	18.2% [15.2, 21.3]
Race/Ethnicity				
White	10.6% [9.0, 12.2]	22.4% [17.5, 27.3]	15.8% [13.1, 18.5]	22.6% [19.6, 25.6]
Black	2.2% [0.3, 4.1]*	10.1% [7.1, 13.1]	5.6% [3.2, 7.9]	11.4% [7.7, 15.1]
Hispanic	8.4% [5.0, 11.8]	16.1% [9.8, 22.4]	13.1% [8.5, 17.8]	18.2% [12.7, 23.6]
Grade				
9th	7.6% [4.3, 10.8]	15.8% [12.7, 18.8]	8.6% [5.4, 11.7]	13.6% [10.9, 16.3]
10th	9.0% [6.5, 11.4]	14.6% [9.9, 19.2]	15.6% [11.7, 19.5]	19.3% [14.7, 24.0]
11th	10.6% [7.2, 14.0]	19.9% [15.4, 24.5]	14.2% [9.2, 19.1]	21.4% [17.2, 25.6]
12th	10.6% [7.6, 13.5]	32.0% [21.7, 42.2]	19.2% [15.1, 23.4]	26.9% [20.6, 33.2]

†Defined as use of smokeless tobacco (chewing tobacco, snuff, or dip), e-cigarettes, snus, or dissolvable tobacco on one or more of the past 30 days.

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-7. Ever Use of Cigarettes among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Total	% [95% CI]	34.1% [27.8, 40.3]	35.8% [31.1, 40.4]	27.8% [23.7, 31.9]	25.9% [22.1, 29.7]	21.4% [17.8, 24.9]	16.4% [13.6, 19.2]	14.2% [11.4, 17.0]	12.3% [9.3, 15.3]	10.1% [7.9, 12.2]	9.5% [7.2, 11.8]
Gender % [95% CI]	Male	35.5% [28.9, 42.1]	37.6% [31.0, 44.1]	26.6% [22.3, 30.9]	26.2% [21.9, 30.4]	22.0% [17.7, 26.2]	17.8% [14.6, 20.9]	14.2% [11.3, 17.1]	12.6% [9.3, 15.9]	10.2% [7.5, 13.0]	9.5% [6.9, 12.2]
	Female	32.6% [25.2, 39.9]	34.1% [28.9, 39.2]	28.7% [22.8, 34.6]	25.5% [21.7, 29.4]	20.7% [16.4, 25.1]	15.0% [11.7, 18.3]	14.1% [10.3, 17.9]	11.8% [7.9, 15.8]	10.0% [7.2, 12.8]	9.3% [6.8, 11.8]
Race/ Ethnicity % [95% CI]	White	31.0% [23.8, 38.2]	31.6% [26.4, 36.9]	25.8% [21.3, 30.3]	24.5% [20.3, 28.7]	19.3% [15.1, 23.5]	15.3% [12.2, 18.4]	13.3% [10.4, 16.2]	11.6% [8.4, 14.9]	8.8% [6.2, 11.5]	9.0% [6.6, 11.4]
	Black	44.8% [33.4, 56.1]	50.5% [44.6, 56.4]	32.3% [25.6, 38.9]	31.2% [25.5, 36.9]	27.5% [22.5, 32.5]	21.0% [15.8, 26.2]	17.0% [11.9, 22.1]	12.7% [7.2, 18.2]	12.0% [7.7, 16.3]	10.8% [6.5, 15.0]
	Hispanic	55.9% [44.3, 67.6]	42.6% [30.4, 54.8]	44.0% [33.7, 54.4]	27.1% [18.5, 35.7]	35.3% [27.8, 42.8]	23.7% [16.0, 31.4]	16.4% [12.2, 20.6]	14.8% [9.7, 19.9]	14.5% [10.7, 18.2]	11.5% [6.5, 16.4]
Grade % [95% CI]	6th Grade	21.1% [11.7, 30.5]	27.2% [20.6, 33.8]	18.2% [11.3, 25.1]	13.8% [10.7, 17.0]	11.5% [8.0, 15.1]	6.0% [3.1, 8.8]	6.4% [3.9, 9.0]	8.0% [4.4, 11.7]	6.8% [3.7, 9.8]	3.5%* [1.0, 5.9]
	7th Grade	36.2% [28.4, 44.1]	36.5% [28.8, 44.2]	27.5% [23.0, 32.0]	25.1% [21.2, 29.0]	19.8% [16.1, 23.4]	14.7% [10.6, 18.8]	13.2% [9.2, 17.1]	13.1% [8.2, 17.9]	7.3% [4.5, 10.1]	10.7% [8.0, 13.5]
	8th Grade	45.2% [37.3, 53.1]	40.8% [32.2, 49.3]	37.4% [29.6, 45.2]	38.0% [31.6, 44.3]	33.5% [27.5, 39.6]	24.3% [18.3, 30.4]	23.1% [18.2, 28.0]	15.9% [11.4, 20.4]	14.9% [10.1, 19.6]	14.3% [10.7, 17.8]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Total	% [95% CI]	65.3% [61.2, 69.4]	54.4% [49.6, 59.2]	52.7% [49.6, 55.7]	51.6% [45.5, 57.6]	50.7% [46.6, 54.7]	43.6% [40.3, 46.9]	37.4% [33.5, 41.3]	35.3% [29.3, 41.3]	28.9% [25.5, 32.4]	22.1% [18.8, 25.4]
Gender % [95% CI]	Male	67.8% [63.3, 72.3]	53.4% [48.0, 58.9]	53.2% [49.9, 56.4]	53.7% [47.8, 59.6]	51.9% [47.2, 56.7]	44.8% [41.3, 48.3]	41.7% [37.9, 45.5]	35.8% [29.6, 42.1]	29.7% [24.9, 34.6]	22.4% [18.3, 26.6]
	Female	62.6% [57.7, 67.5]	55.1% [49.8, 60.4]	52.1% [48.2, 56.0]	49.3% [42.0, 56.6]	49.4% [44.5, 54.3]	42.1% [37.8, 46.5]	32.9% [27.1, 38.8]	34.6% [27.9, 41.4]	28.4% [24.6, 32.2]	21.7% [18.3, 25.0]
Race/ Ethnicity % [95% CI]	White	65.9% [61.2, 70.6]	52.7% [48.2, 57.2]	51.1% [48.5, 53.6]	50.4% [43.0, 57.7]	50.2% [46.4, 53.9]	43.3% [39.4, 47.2]	37.8% [33.4, 42.2]	35.6% [28.8, 42.3]	29.3% [25.5, 33.2]	23.2% [19.2, 27.1]
	Black	60.4% [51.3, 69.5]	60.9% [54.8, 66.9]	57.5% [50.9, 64.2]	55.3% [51.1, 59.4]	49.7% [43.2, 56.2]	39.7% [34.7, 44.7]	36.8% [28.6, 45.0]	33.3% [24.9, 41.8]	26.4% [15.9, 36.9]	16.7% [12.3, 21.0]
	Hispanic	70.0% [54.9, 85.2]	62.5% [52.6, 72.4]	57.2% [50.7, 63.7]	63.5% [56.5, 70.6]	58.5% [52.1, 65.0]	50.5% [45.5, 55.4]	41.5% [34.3, 48.7]	32.1% [25.1, 39.1]	29.9% [23.8, 35.9]	18.5% [14.6, 22.4]
Grade % [95% CI]	9th Grade	54.9% [47.1, 62.7]	48.0% [39.8, 56.2]	44.2% [40.1, 48.3]	39.2% [33.4, 45.0]	42.1% [35.7, 48.4]	36.8% [32.0, 41.6]	29.9% [24.0, 35.8]	26.9% [21.3, 32.5]	21.4% [16.8, 26.1]	14.7% [11.2, 18.3]
	10th Grade	67.6% [61.4, 73.7]	53.3% [45.1, 61.5]	50.7% [46.5, 55.0]	53.2% [45.2, 61.3]	47.1% [40.0, 54.2]	39.3% [34.6, 44.0]	35.4% [31.4, 39.4]	28.9% [21.5, 36.3]	25.6% [20.7, 30.5]	17.9% [14.7, 21.2]
	11th Grade	65.2% [58.0, 72.3]	55.0% [46.6, 63.4]	55.2% [50.3, 60.1]	59.0% [51.6, 66.3]	56.9% [50.1, 63.6]	47.0% [41.8, 52.2]	42.2% [35.9, 48.5]	36.0% [29.6, 42.4]	30.2% [25.4, 35.0]	23.9% [20.6, 27.1]
	12th Grade	74.6% [67.0, 82.2]	63.2% [53.4, 73.0]	62.9% [57.3, 68.5]	57.7% [47.3, 68.2]	58.5% [51.4, 65.6]	51.4% [45.8, 57.1]	42.4% [34.7, 50.0]	49.7% [39.6, 59.8]	39.1% [32.9, 45.4]	32.5% [26.3, 38.8]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-8. Current (Past 30-Day) Use of Cigarettes among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Total	% [95% CI]	9.8% [7.1, 12.6]	10.0% [7.6, 12.4]	7.8% [5.9, 9.7]	7.7% [5.9, 9.6]	4.1% [2.9, 5.3]	4.4% [3.3, 5.5]	3.7% [2.7, 4.8]	2.9% [1.9, 3.8]	1.8% [1.0, 2.5]	1.9% [1.3, 2.5]
Gender % [95% CI]	Male	9.3% [6.8, 11.9]	8.4% [5.6, 11.1]	5.7% [3.7, 7.6]	7.1% [5.2, 9.1]	4.5% [2.9, 6.0]	5.2% [3.7, 6.8]	3.6% [2.4, 4.8]	2.9% [1.8, 3.9]	1.4% [0.8, 2.1]	1.6% [1.0, 2.3]
	Female	10.4% [6.7, 14.2]	11.1% [7.4, 14.8]	10.1% [7.5, 12.6]	8.3% [6.2, 10.5]	3.7% [2.4, 4.9]	3.5% [1.9, 5.1]	3.9% [2.7, 5.1]	2.8% [1.6, 4.0]	2.1% [0.8, 3.4]	2.1% [1.2, 3.0]
Race/ Ethnicity % [95% CI]	White	9.0% [5.8, 12.3]	10.1% [6.4, 13.8]	8.1% [5.7, 10.6]	7.6% [5.4, 9.8]	3.7% [2.5, 5.0]	4.3% [3.0, 5.6]	3.5% [2.5, 4.6]	2.8% [1.7, 3.9]	1.8%* [0.6, 3.0]	1.9% [1.1, 2.7]
	Black	11.5% [4.9, 18.2]	10.2% [7.0, 13.4]	6.2% [2.7, 9.7]	6.4% [3.5, 9.3]	4.9% [2.4, 7.3]	3.4% [1.4, 5.5]	1.9%* [0.0, 4.0]	2.2%* [0.1, 4.3]	1.2%* [0.0, 2.4]	1.0%* [-0.1, 2.0]
	Hispanic	16.4% [6.2, 26.7]	10.9% [4.5, 17.3]	8.1% [3.1, 13.2]	8.1% [4.8, 11.5]	6.4% [3.4, 9.4]	9.0% [5.4, 12.5]	6.2% [3.0, 9.5]	3.9%* [1.2, 6.6]	2.8% [1.4, 4.1]	2.8% [1.1, 4.4]
Grade % [95% CI]	6th Grade	5.9%* [2.1, 9.7]	5.0%* [1.6, 8.4]	4.9%* [0.6, 9.2]	2.9% [1.7, 4.1]	1.3%* [0.3, 2.2]	1.5%* [0.1, 2.9]	1.1%* [0.1, 2.1]	1.0%* [0.0, 2.3]	0.0% [0.0, 0.0]	0.8% [-0.2, 1.9]
	7th Grade	7.2% [4.1, 10.4]	10.2% [6.9, 13.5]	8.2% [6.2, 10.2]	5.4% [3.8, 7.0]	4.1% [2.6, 5.7]	2.6% [1.1, 4.0]	3.2% [1.7, 4.8]	3.4% [1.6, 5.1]	1.3% [0.5, 2.1]	2.1% [0.8, 3.4]
	8th Grade	17.1% [11.8, 22.3]	13.2% [8.3, 18.1]	10.2% [7.1, 13.3]	14.6% [10.8, 18.5]	6.9% [4.6, 9.3]	8.1% [5.3, 10.9]	7.0% [4.7, 9.3]	4.3% [2.4, 6.2]	3.2% [1.2, 5.3]	2.9% [1.8, 3.9]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Total	% [95% CI]	31.6% [28.3, 34.9]	20.4% [17.0, 23.8]	21.3% [19.1, 23.5]	23.2% [19.5, 26.8]	18.3% [16.0, 20.5]	17.5% [15.1, 19.9]	13.7% [11.3, 16.2]	12.0% [8.6, 15.4]	8.7% [6.7, 10.8]	5.2% [3.9, 6.5]
Gender % [95% CI]	Male	32.8% [27.9, 37.7]	21.2% [17.9, 24.5]	22.8% [20.1, 25.6]	23.6% [20.0, 27.1]	19.0% [16.0, 21.9]	18.8% [15.6, 21.9]	14.8% [12.1, 17.5]	12.5% [9.1, 15.9]	9.3% [6.8, 11.9]	5.6% [3.8, 7.5]
	Female	30.1% [26.0, 34.2]	19.7% [15.3, 24.1]	19.4% [17.1, 21.8]	22.7% [18.0, 27.4]	17.5% [15.1, 20.0]	15.8% [13.1, 18.5]	12.7% [9.3, 16.1]	11.3% [7.8, 14.7]	8.2% [5.7, 10.8]	4.7% [3.4, 6.0]
Race/ Ethnicity % [95% CI]	White	33.4% [29.8, 37.0]	20.6% [17.2, 23.9]	22.3% [20.0, 24.7]	24.7% [20.3, 29.1]	19.2% [16.8, 21.5]	17.8% [15.0, 20.6]	14.5% [11.7, 17.2]	13.0% [9.2, 16.7]	10.0% [7.7, 12.3]	5.8% [4.2, 7.4]
	Black	15.0% [9.5, 20.6]	15.6% [10.7, 20.5]	12.6% [8.7, 16.5]	11.4% [7.2, 15.6]	11.1% [8.5, 13.8]	9.0% [5.8, 12.2]	8.6% [4.4, 12.9]	5.3% [2.7, 7.9]	3.1%* [0.4, 5.8]	2.9% [0.7, 5.1]
	Hispanic	28.2% [15.6, 40.8]	17.6%* [6.6, 28.6]	22.7% [16.9, 28.4]	19.1% [13.5, 24.8]	18.3% [13.9, 22.6]	19.7% [14.9, 24.4]	14.1% [9.0, 19.3]	8.5%* [2.8, 14.2]	8.0% [4.9, 11.1]	3.3% [1.9, 4.8]
Grade % [95% CI]	9th Grade	23.8% [17.1, 30.5]	17.0% [11.6, 22.5]	18.5% [15.5, 21.5]	16.4% [13.5, 19.4]	11.5% [8.5, 14.5]	13.2% [10.8, 15.5]	10.0% [6.3, 13.6]	9.0% [6.6, 11.4]	4.4% [2.3, 6.4]	3.0% [2.0, 4.0]
	10th Grade	31.4% [26.9, 35.9]	19.5% [14.1, 25.0]	19.1% [16.6, 21.6]	22.5% [18.1, 27.0]	16.9% [13.4, 20.3]	14.1% [10.5, 17.6]	11.5% [8.7, 14.3]	8.9% [4.4, 13.3]	8.1% [5.5, 10.7]	3.4% [2.0, 4.9]
	11th Grade	30.5% [24.5, 36.5]	19.7% [13.1, 26.3]	22.9% [18.4, 27.3]	27.5% [22.1, 32.9]	23.4% [18.2, 28.6]	21.2% [17.4, 24.9]	18.2% [13.4, 23.0]	11.0% [7.8, 14.1]	9.7% [5.9, 13.5]	5.8% [3.7, 8.0]
	12th Grade	41.8% [31.7, 52.0]	27.3% [20.5, 34.1]	25.6% [20.4, 30.8]	28.1% [20.6, 35.7]	22.7% [18.5, 26.9]	21.5% [16.4, 26.6]	15.6% [11.0, 20.3]	19.1% [11.9, 26.3]	13.0% [8.3, 17.6]	8.8% [5.5, 12.1]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-9. Ever Use of Cigars, Cigarillos, or Little Cigars among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Total	% [95% CI]	17.8% [14.4, 21.1]	20.9% [18.3, 23.6]	16.1% [13.4, 18.7]	15.9% [13.7, 18.1]	11.1% [9.3, 13.0]	8.9% [7.2, 10.6]	7.2% [5.6, 8.8]	4.9% [3.7, 6.0]	5.7% [4.1, 7.3]	6.6% [5.0, 8.3]
Gender % [95% CI]	Male	21.5% [16.4, 26.6]	27.0% [22.3, 31.7]	18.0% [15.0, 20.9]	19.4% [16.6, 22.3]	13.3% [10.6, 16.0]	11.7% [8.8, 14.5]	9.0% [7.1, 10.8]	6.7% [5.1, 8.3]	5.9% [3.6, 8.2]	6.9% [5.1, 8.7]
	Female	13.9% [11.1, 16.7]	16.0% [12.4, 19.5]	13.8% [10.2, 17.5]	12.2% [9.6, 14.8]	8.8% [6.7, 10.9]	6.0% [4.1, 7.8]	5.3% [3.3, 7.4]	2.9% [1.8, 3.9]	5.4% [3.4, 7.5]	6.4% [4.3, 8.4]
Race/ Ethnicity % [95% CI]	White	15.8% [11.9, 19.6]	17.8% [14.8, 20.8]	14.6% [12.0, 17.3]	13.8% [11.7, 15.8]	9.9% [8.0, 11.8]	8.3% [6.4, 10.1]	6.5% [4.7, 8.2]	4.1% [2.8, 5.4]	4.6% [3.1, 6.2]	5.6% [4.2, 7.0]
	Black	26.0% [15.9, 36.1]	33.2% [29.1, 37.3]	23.0% [18.0, 28.0]	23.7% [18.9, 28.4]	14.9% [11.4, 18.5]	11.6% [6.9, 16.3]	9.5% [5.9, 13.1]	8.2% [3.2, 13.2]	10.7% [7.4, 14.0]	12.5% [7.4, 17.7]
	Hispanic	24.0% [14.8, 33.1]	26.8% [21.0, 32.6]	18.5% [12.6, 24.4]	20.3% [14.2, 26.4]	17.2% [11.3, 23.2]	13.5% [9.2, 17.9]	7.9% [4.8, 11.0]	6.2% [2.7, 9.6]	9.0% [6.4, 11.6]	7.3% [3.5, 11.0]
Grade % [95% CI]	6th Grade	11.9% [6.3, 17.6]	14.7% [10.6, 18.8]	10.3% [6.5, 14.2]	8.2% [6.1, 10.3]	6.7% [4.1, 9.3]	3.4%* [1.3, 5.4]	3.3% [1.8, 4.9]	2.8% [1.2, 4.4]	2.1%* [0.0, 4.3]	1.9%* [0.5, 3.3]
	7th Grade	16.1% [12.1, 20.0]	20.8% [14.0, 27.6]	15.4% [12.2, 18.6]	16.5% [13.7, 19.3]	9.7% [7.6, 11.7]	6.4% [4.6, 8.3]	5.5% [3.3, 7.8]	5.0% [3.2, 6.9]	4.8% [2.5, 7.1]	7.9% [5.4, 10.4]
	8th Grade	25.7% [20.3, 31.0]	25.6% [22.1, 29.1]	22.0% [17.3, 26.7]	22.5% [19.2, 25.7]	17.0% [13.8, 20.1]	14.5% [10.6, 18.4]	12.8% [9.4, 16.3]	6.8% [4.1, 9.4]	8.7% [5.4, 12.1]	10.1% [7.3, 12.9]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Total	% [95% CI]	45.4% [40.9, 49.9]	37.5% [34.2, 40.8]	35.4% [32.7, 38.1]	36.5% [32.6, 40.4]	33.4% [30.5, 36.4]	30.6% [27.6, 33.6]	28.3% [24.9, 31.6]	23.4% [19.3, 27.6]	21.2% [18.1, 24.4]	18.3% [14.9, 21.8]
Gender % [95% CI]	Male	56.0% [49.4, 62.5]	44.7% [39.8, 49.7]	42.3% [38.8, 45.8]	44.5% [40.1, 48.9]	38.5% [35.1, 41.9]	37.8% [33.2, 42.5]	36.2% [31.9, 40.4]	27.8% [22.7, 33.0]	24.4% [20.9, 28.0]	21.1% [16.7, 25.5]
	Female	34.3% [31.2, 37.4]	30.2% [26.0, 34.3]	28.2% [25.4, 31.0]	28.2% [23.7, 32.7]	28.4% [24.5, 32.2]	23.1% [20.4, 25.9]	20.0% [15.9, 24.1]	18.9% [14.5, 23.4]	17.9% [14.0, 21.9]	15.2% [11.7, 18.8]
Race/ Ethnicity % [95% CI]	White	46.5% [41.4, 51.6]	37.6% [34.6, 40.7]	34.8% [32.2, 37.5]	37.1% [32.1, 42.1]	34.0% [31.0, 37.0]	30.5% [27.0, 33.9]	28.6% [24.7, 32.4]	24.2% [20.0, 28.3]	20.4% [17.5, 23.3]	17.5% [13.8, 21.2]
	Black	33.9% [25.6, 42.2]	38.8% [30.8, 46.9]	34.3% [28.3, 40.3]	32.4% [27.4, 37.3]	29.5% [25.0, 34.0]	26.9% [22.1, 31.7]	26.0% [18.6, 33.4]	16.9% [10.9, 22.9]	28.8% [19.5, 38.1]	24.5% [18.9, 30.2]
	Hispanic	49.3% [36.4, 62.2]	34.4% [24.5, 44.3]	39.0% [33.6, 44.4]	35.9% [27.3, 44.4]	34.3% [28.4, 40.2]	34.0% [29.1, 38.9]	30.0% [23.5, 36.6]	20.3% [13.3, 27.4]	21.9% [15.9, 27.9]	16.1% [11.4, 20.8]
Grade % [95% CI]	9th Grade	31.1% [24.2, 38.1]	29.8% [25.2, 34.5]	28.1% [24.2, 32.0]	24.8% [20.8, 28.8]	24.7% [20.1, 29.3]	20.1% [17.0, 23.2]	17.0% [13.2, 20.8]	14.7% [11.9, 17.6]	15.4% [11.6, 19.2]	12.0% [7.9, 16.1]
	10th Grade	44.9% [40.2, 49.7]	36.6% [29.2, 44.0]	31.8% [27.9, 35.8]	38.2% [31.8, 44.5]	30.5% [26.1, 34.8]	28.4% [23.7, 33.2]	22.3% [19.0, 25.6]	18.5% [13.3, 23.7]	16.3% [12.7, 19.9]	14.4% [10.7, 18.0]
	11th Grade	48.6% [42.2, 55.0]	39.7% [32.6, 46.9]	38.2% [33.0, 43.3]	38.8% [32.9, 44.7]	40.5% [34.6, 46.4]	35.8% [31.8, 39.8]	33.8% [27.8, 39.8]	23.1% [19.3, 26.9]	20.9% [16.6, 25.2]	19.3% [14.5, 24.1]
	12th Grade	60.3% [52.1, 68.6]	45.5% [38.9, 52.2]	45.4% [39.3, 51.6]	47.6% [42.2, 53.0]	40.4% [34.2, 46.5]	38.0% [32.5, 43.4]	41.2% [35.2, 47.2]	37.9% [31.1, 44.7]	33.0% [26.8, 39.2]	28.3% [23.2, 33.3]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-10. Current (Past 30-Day) Use of Cigars, Cigarillos, or Little Cigars among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Total	% [95% CI]	5.2% [3.8, 6.6]	6.3% [4.4, 8.1]	4.4% [3.3, 5.5]	5.7% [4.5, 7.0]	3.9% [2.8, 4.9]	2.8% [1.7, 4.0]	2.4% [1.7, 3.1]	1.7% [1.0, 2.3]	1.5% [0.9, 2.1]	2.1% [1.3, 2.9]
Gender % [95% CI]	Male	6.7% [4.5, 9.0]	8.1% [5.1, 11.1]	4.9% [3.3, 6.6]	6.3% [4.7, 7.9]	4.8% [3.3, 6.4]	4.3% [2.4, 6.1]	3.0% [2.1, 3.9]	2.2% [1.3, 3.1]	1.5% [0.7, 2.2]	1.8% [1.1, 2.5]
	Female	3.5% [1.9, 5.1]	4.9% [3.0, 6.7]	3.9% [2.2, 5.6]	5.0% [3.5, 6.5]	2.8% [1.9, 3.8]	1.4%* [0.4, 2.3]	1.8% [1.0, 2.6]	1.1% [0.5, 1.8]	1.5%* [0.5, 2.5]	2.4% [1.3, 3.5]
Race/ Ethnicity % [95% CI]	White	4.9% [3.1, 6.7]	4.5% [3.4, 5.6]	3.7% [2.4, 5.1]	4.2% [3.1, 5.4]	3.3% [2.2, 4.3]	2.2% [1.0, 3.5]	2.2% [1.3, 3.1]	1.3% [0.7, 1.9]	1.1%* [0.4, 1.8]	1.8% [1.1, 2.5]
	Black	6.3%* [1.7, 10.8]	12.3% [9.1, 15.4]	6.4% [3.5, 9.3]	10.9% [7.0, 14.8]	6.1% [4.0, 8.3]	6.1% [3.0, 9.2]	2.9% [1.2, 4.6]	2.7%* [0.0, 5.9]	3.1%* [0.8, 5.5]	3.5%* [1.2, 5.8]
	Hispanic	6.0%* [0.0, 12.1]	9.4%* [2.9, 15.9]	5.9%* [1.6, 10.3]	8.8% [5.3, 12.4]	5.1% [2.8, 7.5]	4.9%* [1.7, 8.1]	4.1% [1.8, 6.4]	2.6%* [0.3, 4.8]	3.0% [1.6, 4.5]	2.7%* [0.9, 4.5]
Grade % [95% CI]	6th Grade	3.9%* [1.2, 6.6]	6.0%* [2.1, 9.9]	2.7% [1.3, 4.0]	2.7% [1.5, 3.9]	1.5%* [0.6, 2.4]	1.0%* [0.0, 2.2]	0.2%* [0.0, 0.6]	0.2%* [0.0, 0.7]	0.1%* [0.0, 0.3]	0.5%* [-0.1, 1.0]
	7th Grade	4.5% [2.6, 6.3]	6.0% [3.2, 8.9]	3.3% [1.8, 4.9]	5.8% [3.9, 7.6]	3.4% [2.4, 4.3]	1.5%* [0.5, 2.4]	1.9% [0.9, 3.0]	1.8% [0.9, 2.6]	1.1%* [0.4, 1.8]	2.4% [1.2, 3.6]
	8th Grade	7.4% [4.8, 9.9]	6.5% [3.7, 9.3]	6.9% [4.5, 9.2]	8.6% [6.6, 10.6]	6.7% [4.5, 8.9]	5.2% [2.5, 8.0]	5.2% [3.3, 7.0]	3.1% [1.4, 4.7]	2.7% [1.1, 4.3]	3.3% [2.1, 4.6]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Total	% [95% CI]	15.4% [13.2, 17.5]	11.5% [9.8, 13.3]	13.7% [11.8, 15.5]	16.6% [13.7, 19.4]	14.6% [12.6, 16.7]	13.7% [12.0, 15.3]	11.6% [9.6, 13.6]	9.3% [7.0, 11.5]	8.7% [6.7, 10.8]	6.7% [5.3, 8.1]
Gender % [95% CI]	Male	22.3% [18.6, 25.9]	16.4% [13.6, 19.1]	18.3% [15.7, 20.9]	22.1% [18.2, 26.0]	17.5% [15.0, 20.0]	18.3% [15.5, 21.1]	16.2% [13.4, 19.1]	12.1% [8.7, 15.4]	10.3% [7.8, 12.7]	7.8% [6.3, 9.3]
	Female	8.2% [5.6, 10.7]	6.6% [4.5, 8.6]	8.8% [7.0, 10.7]	10.9% [7.7, 14.2]	11.7% [9.3, 14.0]	8.8% [7.1, 10.5]	6.8% [4.7, 8.8]	6.5% [4.7, 8.3]	7.3% [4.9, 9.6]	5.4% [3.6, 7.2]
Race/ Ethnicity % [95% CI]	White	16.1% [13.5, 18.6]	11.4% [9.7, 13.1]	13.3% [10.8, 15.7]	16.8% [13.3, 20.3]	14.8% [12.3, 17.3]	13.0% [11.3, 14.8]	11.4% [9.2, 13.6]	9.7% [7.2, 12.3]	8.5% [6.4, 10.5]	6.5% [4.9, 8.1]
	Black	10.5% [4.9, 16.0]	14.0% [8.9, 19.1]	12.2% [8.7, 15.6]	14.8% [9.5, 20.0]	12.9% [10.0, 15.7]	12.1% [8.6, 15.7]	13.1% [7.4, 18.8]	6.8% [3.4, 10.3]	12.5% [7.1, 17.9]	8.5% [5.3, 11.7]
	Hispanic	15.0%* [4.8, 25.2]	11.8% [5.8, 17.7]	17.3% [11.5, 23.1]	14.4% [10.4, 18.4]	15.6% [12.2, 19.1]	18.0% [14.0, 22.0]	12.5% [8.3, 16.8]	8.2% [5.0, 11.5]	9.9% [6.2, 13.6]	5.1% [3.1, 7.1]
Grade % [95% CI]	9th Grade	11.1% [6.5, 15.7]	8.4% [5.1, 11.7]	9.5% [7.3, 11.7]	10.3% [7.0, 13.5]	9.6% [6.8, 12.4]	8.8% [6.9, 10.8]	7.0% [4.8, 9.3]	5.7% [3.7, 7.8]	5.9% [3.5, 8.4]	4.4% [2.4, 6.5]
	10th Grade	14.7% [10.5, 18.9]	10.6% [7.6, 13.5]	12.4% [9.8, 15.0]	15.4% [12.0, 18.8]	12.0% [8.8, 15.1]	12.0% [9.4, 14.5]	8.1% [6.2, 10.1]	7.4% [4.9, 9.9]	9.4% [6.0, 12.7]	5.2% [3.2, 7.2]
	11th Grade	15.4% [10.4, 20.3]	12.3% [8.0, 16.6]	15.4% [12.0, 18.8]	19.2% [14.9, 23.6]	20.2% [16.5, 24.0]	15.9% [13.7, 18.1]	12.7% [8.8, 16.5]	7.5% [4.5, 10.5]	6.7% [4.5, 8.9]	7.3% [5.1, 9.6]
	12th Grade	21.6% [15.6, 27.5]	15.6% [7.7, 23.5]	18.9% [14.6, 23.2]	23.5% [19.1, 27.9]	18.1% [13.9, 22.2]	17.9% [13.8, 22.0]	19.3% [14.5, 24.1]	16.7% [11.3, 22.2]	13.1% [9.1, 17.1]	10.1% [7.3, 12.9]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-11. Ever Use of Smokeless Tobacco (Chewing Tobacco, Snuff, or Dip) among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Total	% [95% CI]	10.4% [7.8, 12.9]	11.5% [9.1, 13.9]	7.9% [6.3, 9.6]	8.2% [6.1, 10.4]	6.7% [4.4, 9.1]	6.0% [4.5, 7.5]	5.1% [3.5, 6.7]	4.9% [3.2, 6.6]	3.9% [2.2, 5.6]	3.5% [2.4, 4.5]
Gender % [95% CI]	Male	14.7% [10.7, 18.7]	17.6% [12.8, 22.4]	10.4% [7.4, 13.5]	11.8% [8.5, 15.1]	9.4% [6.0, 12.8]	9.7% [7.0, 12.5]	7.5% [4.9, 10.2]	7.1% [4.6, 9.6]	4.7% [2.2, 7.3]	4.1% [2.6, 5.6]
	Female	5.7% [3.5, 7.9]	6.3% [3.8, 8.7]	4.9% [2.9, 6.9]	4.4% [2.9, 6.0]	4.0% [2.2, 5.7]	2.0% [1.2, 2.9]	2.6% [1.5, 3.7]	2.6% [1.4, 3.8]	2.9% [1.4, 4.5]	2.8% [1.7, 3.9]
Race/ Ethnicity % [95% CI]	White	9.3% [6.5, 12.1]	12.1% [9.1, 15.1]	6.6% [4.7, 8.5]	8.6% [6.1, 11.0]	7.3% [4.8, 9.9]	6.5% [4.7, 8.3]	5.5% [3.6, 7.3]	5.1% [3.2, 6.9]	4.2% [2.3, 6.1]	3.3% [2.2, 4.4]
	Black	11.2%* [1.7, 20.8]	9.9% [7.3, 12.5]	12.8% [9.4, 16.2]	5.5% [3.7, 7.2]	3.1%* [1.1, 5.1]	2.2%* [0.3, 4.0]	2.0%* [0.0, 4.4]	1.9%* [0.1, 3.6]	1.3%* [0.0, 3.0]	2.7%* [0.4, 5.1]
	Hispanic	17.3%* [5.1, 29.5]	11.3% [6.3, 16.3]	8.5%* [2.3, 14.7]	5.2%* [1.6, 8.9]	4.3%* [1.3, 7.2]	4.3%* [1.5, 7.2]	3.8% [1.5, 6.0]	5.0%* [1.2, 8.7]	3.6%* [1.2, 6.1]	3.5% [1.9, 5.1]
Grade % [95% CI]	6th Grade	9.7% [5.0, 14.4]	10.8% [8.1, 13.5]	8.5% [4.9, 12.2]	4.9% [3.4, 6.3]	2.3%* [0.8, 3.8]	1.9%* [0.3, 3.6]	3.8% [1.5, 6.0]	4.0% [1.6, 6.4]	3.7%* [1.2, 6.3]	1.3%* [0.3, 2.3]
	7th Grade	9.4% [7.0, 11.7]	11.0% [6.0, 15.9]	6.7% [4.5, 8.9]	7.2% [5.5, 9.0]	5.9% [3.1, 8.8]	5.1% [3.4, 6.7]	4.1% [2.3, 5.9]	4.4% [2.3, 6.4]	3.3% [1.4, 5.1]	4.0% [2.3, 5.7]
	8th Grade	11.9% [7.3, 16.5]	13.0% [10.1, 15.9]	8.4% [6.7, 10.1]	12.5% [7.4, 17.5]	11.9% [7.1, 16.7]	9.4% [5.5, 13.3]	7.5% [4.8, 10.2]	6.3% [4.0, 8.6]	4.5%* [1.7, 7.4]	5.1% [3.1, 7.2]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Total	% [95% CI]	20.0% [15.1, 24.8]	18.0% [14.7, 21.2]	17.4% [14.9, 19.9]	16.2% [12.4, 20.0]	15.7% [13.7, 17.7]	15.4% [12.9, 17.9]	15.8% [13.0, 18.6]	15.8% [11.3, 20.3]	10.5% [7.7, 13.4]	9.3% [7.7, 10.9]
Gender % [95% CI]	Male	31.8% [24.7, 38.8]	26.2% [21.2, 31.2]	25.2% [21.9, 28.6]	26.1% [20.6, 31.7]	24.8% [21.3, 28.2]	24.0% [20.4, 27.6]	24.6% [21.1, 28.0]	24.0% [17.1, 30.8]	14.9% [10.7, 19.2]	12.5% [10.3, 14.7]
	Female	7.6% [5.1, 10.1]	9.8% [6.8, 12.8]	9.3% [7.4, 11.2]	6.0% [3.7, 8.3]	6.3% [4.5, 8.2]	6.5% [4.8, 8.3]	6.6% [3.3, 9.8]	7.2% [4.7, 9.6]	6.0% [3.4, 8.6]	5.9% [4.0, 7.9]
Race/ Ethnicity % [95% CI]	White	22.0% [16.9, 27.2]	19.0% [15.5, 22.5]	18.3% [16.2, 20.4]	17.6% [13.7, 21.5]	17.2% [15.4, 19.0]	16.6% [13.9, 19.3]	18.8% [15.7, 22.0]	18.3% [13.0, 23.5]	12.0% [8.8, 15.2]	10.6% [8.6, 12.7]
	Black	4.7%* [0.6, 8.8]	15.7% [9.8, 21.5]	11.6% [8.3, 14.9]	6.8% [3.7, 9.9]	5.6% [3.7, 7.5]	6.1% [2.9, 9.3]	3.4%* [0.7, 6.1]	2.2% [0.9, 3.5]	2.2%* [0.4, 4.0]	5.2%* [1.7, 8.7]
	Hispanic	9.7%* [2.4, 17.0]	9.8%* [1.8, 17.9]	17.7% [12.4, 23.0]	11.1% [7.6, 14.6]	13.2% [11.1, 15.3]	15.2% [9.6, 20.8]	11.4% [6.3, 16.6]	8.1% [4.4, 11.8]	6.6% [3.1, 10.2]	4.8% [2.4, 7.2]
Grade % [95% CI]	9th Grade	14.1%* [5.4, 22.8]	15.2% [11.4, 18.9]	13.2% [11.1, 15.2]	12.5% [9.1, 16.0]	11.2% [8.6, 13.7]	10.2% [6.7, 13.7]	11.5% [8.0, 15.0]	12.6% [8.4, 16.8]	7.4% [4.6, 10.2]	5.3% [3.7, 7.0]
	10th Grade	20.9% [16.8, 24.9]	17.4% [11.6, 23.1]	18.1% [15.2, 20.9]	16.6% [11.3, 22.0]	15.4% [12.3, 18.5]	15.0% [11.7, 18.3]	14.9% [11.8, 17.9]	9.7% [4.7, 14.8]	10.7% [6.7, 14.7]	8.9% [6.4, 11.4]
	11th Grade	20.1% [14.0, 26.2]	20.1% [11.0, 29.1]	18.8% [14.1, 23.6]	17.4% [10.4, 24.5]	18.9% [12.3, 25.5]	19.3% [15.1, 23.4]	19.1% [13.6, 24.7]	15.4% [11.7, 19.1]	12.5% [7.0, 17.9]	9.8% [6.6, 13.1]
	12th Grade	26.0% [16.6, 35.5]	20.1% [13.0, 27.3]	19.8% [15.5, 24.0]	19.2% [14.7, 23.7]	18.2% [14.7, 21.8]	17.2% [12.4, 22.1]	18.1% [13.9, 22.4]	25.7% [17.3, 34.1]	11.4% [7.6, 15.2]	13.2% [8.3, 18.1]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-12. Current (Past 30-Day) Use of Smokeless Tobacco (Chewing Tobacco, Snuff, or Dip) among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Total	% [95% CI]	4.1% [2.7, 5.6]	2.4% [1.6, 3.2]	2.2% [1.2, 3.1]	3.6% [2.4, 4.9]	2.9% [1.5, 4.3]	2.5% [1.7, 3.4]	1.5% [0.8, 2.1]	1.8% [1.2, 2.4]	1.3% [0.7, 1.9]	1.5% [0.9, 2.0]
Gender % [95% CI]	Male	6.3% [3.8, 8.8]	3.3% [1.7, 4.9]	3.1% [1.5, 4.7]	5.2% [3.1, 7.3]	3.9% [2.2, 5.6]	4.2% [2.6, 5.8]	2.1% [1.0, 3.2]	2.7% [1.7, 3.7]	1.7% [0.7, 2.7]	1.8% [1.0, 2.6]
	Female	1.8%* [0.7, 3.0]	1.7% [0.7, 2.7]	1.1%* [0.3, 2.0]	2.0% [1.1, 2.8]	1.9%* [0.7, 3.2]	0.7%* [0.2, 1.1]	0.8%* [0.2, 1.5]	0.9%* [0.2, 1.5]	0.8%* [0.1, 1.6]	1.1% [0.6, 1.7]
Race/ Ethnicity % [95% CI]	White	3.5% [2.0, 5.1]	2.5% [1.5, 3.5]	1.9% [0.9, 2.9]	3.5% [1.8, 5.1]	2.9% [1.4, 4.5]	2.7% [1.7, 3.7]	1.6% [0.9, 2.4]	1.7% [1.0, 2.3]	1.5% [0.8, 2.2]	1.5% [0.9, 2.1]
	Black	5.3%* [0.0, 10.8]	1.9% [0.8, 2.9]	2.9%* [0.3, 5.4]	3.1% [1.2, 5.0]	1.5%* [0.3, 2.7]	0.9%* [0.2, 1.6]	0.0% [0.0, 0.0]	1.0%* [0.0, 2.3]	0.7%* [0.0, 2.0]	1.5%* [-0.4, 3.5]
	Hispanic	4.1%* [0.0, 8.9]	1.1%* [0.1, 2.2]	0.6%* [0.0, 1.6]	2.0%* [0.3, 3.7]	2.2%* [0.3, 4.0]	3.0%* [0.1, 5.8]	1.7%* [0.2, 3.2]	3.0%* [0.0, 6.1]	1.2%* [0.0, 2.3]	1.4%* [0.5, 2.2]
Grade % [95% CI]	6th Grade	4.2%* [1.0, 7.4]	1.6%* [0.3, 2.9]	1.9%* [0.2, 3.5]	1.5%* [0.6, 2.3]	0.7%* [0.0, 1.4]	0.5%* [0.0, 1.3]	0.7%* [0.0, 1.5]	1.1%* [0.2, 2.1]	1.5%* [0.3, 2.7]	0.7% [-0.2, 1.5]
	7th Grade	2.8%* [0.9, 4.7]	2.2%* [0.6, 3.8]	1.6%* [0.6, 2.6]	3.2% [1.8, 4.5]	2.5% [1.1, 3.8]	1.7% [0.7, 2.7]	1.2%* [0.0, 2.3]	1.8% [0.9, 2.8]	0.9%* [0.2, 1.7]	1.8% [0.8, 2.9]
	8th Grade	5.4%* [2.1, 8.6]	3.1% [1.5, 4.7]	2.6% [1.1, 4.1]	6.1% [2.9, 9.3]	5.6% [2.6, 8.6]	4.5% [2.3, 6.8]	2.6% [1.0, 4.1]	2.4% [1.2, 3.5]	1.4%* [0.1, 2.7]	2.0% [1.1, 2.9]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Total	% [95% CI]	6.9% [4.7, 9.2]	5.2% [3.1, 7.4]	7.3% [5.9, 8.8]	7.9% [5.7, 10.1]	8.0% [6.5, 9.4]	7.2% [5.9, 8.6]	6.6% [5.2, 7.9]	8.0% [4.6, 11.3]	5.3% [3.3, 7.2]	3.8% [2.8, 4.8]
Gender % [95% CI]	Male	12.2% [8.5, 16.0]	8.1% [4.4, 11.8]	11.8% [9.4, 14.1]	14.1% [10.1, 18.1]	13.6% [11.0, 16.1]	11.8% [9.7, 13.9]	11.2% [8.6, 13.8]	13.6% [7.8, 19.4]	8.1% [5.0, 11.1]	5.7% [3.9, 7.5]
	Female	1.4% [0.6, 2.1]	2.1%* [0.8, 3.5]	2.5% [1.6, 3.3]	1.6% [0.7, 2.5]	2.2% [1.3, 3.1]	2.3% [1.3, 3.3]	1.8% [0.9, 2.7]	2.0% [1.1, 2.9]	2.3% [0.9, 3.7]	1.7% [1.1, 2.4]
Race/ Ethnicity % [95% CI]	White	7.6% [5.0, 10.2]	5.7% [3.3, 8.0]	7.7% [6.1, 9.3]	8.7% [6.1, 11.3]	8.8% [7.3, 10.4]	7.4% [5.9, 9.0]	7.3% [5.7, 8.9]	9.4% [5.5, 13.3]	6.1% [3.8, 8.4]	4.1% [3.0, 5.1]
	Black	1.9%* [0.0, 4.3]	3.8%* [0.0, 9.0]	3.7% [1.6, 5.9]	3.0%* [1.0, 5.0]	2.4% [1.1, 3.6]	1.5%* [0.0, 3.0]	2.2%* [0.3, 4.1]	0.9%* [0.0, 1.8]	1.2%* [0.0, 3.0]	2.0%* [0.3, 3.6]
	Hispanic	0.0% [0.0, 0.0]	0.4%* [0.0, 1.0]	7.9% [4.1, 11.7]	5.3%* [1.9, 8.6]	5.8% [3.8, 7.8]	9.9% [6.5, 13.2]	6.0% [2.7, 9.3]	2.7%* [0.6, 4.7]	2.8%* [0.8, 4.7]	2.8%* [0.6, 5.0]
Grade % [95% CI]	9th Grade	5.4%* [2.0, 8.8]	3.9% [2.1, 5.7]	6.2% [5.0, 7.5]	6.9% [4.3, 9.4]	4.2% [2.8, 5.6]	3.7% [1.8, 5.7]	5.7% [2.8, 8.6]	7.3% [4.2, 10.3]	3.3% [1.5, 5.1]	1.8% [1.2, 2.4]
	10th Grade	6.7% [4.4, 9.0]	5.6% [3.2, 7.9]	7.3% [5.3, 9.4]	7.0% [3.5, 10.5]	8.3% [5.2, 11.4]	7.9% [5.5, 10.3]	5.9% [3.8, 7.9]	4.2%* [1.2, 7.1]	4.8% [2.4, 7.3]	4.0% [2.3, 5.8]
	11th Grade	6.8%* [2.4, 11.3]	6.5%* [0.3, 12.6]	7.8% [5.0, 10.6]	7.3% [3.6, 11.0]	10.6% [5.4, 15.8]	9.1% [6.9, 11.4]	8.2% [5.0, 11.4]	6.5% [4.5, 8.4]	6.6%* [2.5, 10.7]	4.2% [1.7, 6.7]
	12th Grade	8.9%* [2.3, 15.6]	5.2%* [1.8, 8.6]	8.0% [5.5, 10.5]	10.9% [6.9, 14.9]	9.4% [7.3, 11.6]	8.1% [4.7, 11.6]	6.7% [3.5, 10.0]	14.0% [7.0, 21.0]	6.2% [3.2, 9.2]	5.2% [3.1, 7.2]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-13. Ever Use of Electronic Cigarettes (E-cigarettes) among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	3.2% [2.2, 4.3]	11.2% [9.2, 13.2]	10.3% [8.6, 12.1]	15.8% [12.9, 18.6]
Gender				
Male	3.3% [2.0, 4.6]	12.7% [10.0, 15.3]	9.9% [7.5, 12.4]	17.1% [13.9, 20.2]
Female	3.2% [2.0, 4.4]	9.7% [6.9, 12.4]	10.4% [8.2, 12.6]	14.4% [11.4, 17.4]
Race/Ethnicity				
White	3.6% [2.3, 4.8]	10.8% [8.5, 13.2]	9.3% [6.9, 11.7]	15.8% [12.6, 18.9]
Black	1.6% [0.0, 3.3]*	9.7% [5.2, 14.2]	11.5% [6.8, 16.3]	17.3% [13.5, 21.1]
Hispanic	2.5% [0.6, 4.5]*	13.9% [9.2, 18.5]	15.1% [10.7, 19.6]	16.1% [11.9, 20.2]
Grade				
6th	1.6% [0.2, 3.1]*	7.8% [5.7, 9.9]	7.9% [3.0, 12.9]*	9.0% [4.8, 13.2]
7th	2.5% [1.2, 3.7]	10.6% [6.5, 14.7]	8.0% [5.2, 10.8]	16.9% [12.9, 20.8]
8th	5.7% [4.0, 7.4]	15.3% [11.2, 19.3]	14.0% [10.9, 17.2]	21.6% [17.6, 25.6]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	11.0% [9.3, 12.7]	29.1% [25.1, 33.2]	27.6% [25.1, 30.2]	18.5% [15.3, 21.7]
Gender				
Male	13.3% [11.3, 15.2]	30.1% [25.4, 34.7]	29.0% [25.4, 32.6]	35.5% [30.6, 40.4]
Female	8.8% [6.5, 11.2]	28.0% [23.4, 32.6]	26.7% [23.8, 29.6]	36.9% [32.6, 41.2]
Race/Ethnicity				
White	12.7% [10.5, 14.8]	31.2% [26.4, 36.0]	29.4% [26.5, 32.4]	39.6% [35.9, 43.3]
Black	5.0% [2.0, 7.9]	17.4% [12.9, 22.0]	17.5% [13.1, 21.9]	25.1% [17.2, 32.9]
Hispanic	10.3% [5.9, 14.7]	26.2% [20.4, 32.1]	31.5% [24.2, 38.8]	31.0% [24.8, 37.2]
Grade				
9th	7.6% [5.5, 9.7]	22.2% [18.7, 25.6]	23.3% [18.9, 27.6]	26.4% [23.9, 28.9]
10th	9.9% [8.0, 11.9]	23.5% [17.7, 29.3]	27.6% [23.2, 32.0]	34.9% [30.5, 39.2]
11th	14.1% [9.8, 18.5]	32.2% [25.9, 38.5]	27.1% [21.2, 33.0]	39.2% [34.3, 44.1]
12th	12.7% [9.2, 16.2]	38.9% [31.3, 46.5]	33.4% [29.6, 37.2]	44.9% [36.3, 53.4]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-14. Current (Past 30-Day) Use of Electronic Cigarettes (E-cigarettes) among Middle and High School Students, 2012-2018 IYTS

Middle School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	1.2% [0.6, 1.8]	4.9% [3.5, 6.4]	2.8% [1.9, 3.7]	5.5% [4.2, 6.7]
Gender				
Male	1.1% [0.3, 1.8]*	5.5% [3.9, 7.1]	2.3% [1.4, 3.2]	5.4% [3.9, 6.9]
Female	1.4% [0.5, 2.3]*	4.2% [2.5, 5.8]	3.3% [2.2, 4.3]	5.4% [3.5, 7.3]
Race/Ethnicity				
White	1.4% [0.7, 2.1]	4.3% [2.7, 6.0]	2.9% [1.7, 4.0]	5.6% [4.1, 7.0]
Black	0.2% [0.0, 0.5]*	5.5% [1.7, 9.3]*	2.4% [0.0, 5.0]*	3.4% [1.1, 5.8]
Hispanic	0.9% [0.0, 2.0]*	7.1% [3.7, 10.6]	4.2% [2.1, 6.4]	6.7% [4.1, 9.3]
Grade				
6th	0.5% [0.0, 1.2]*	2.4% [0.5, 4.4]*	1.5% [0.2, 2.9]*	2.8% [0.8, 4.7]*
7th	0.8% [0.3, 1.4]*	4.7% [2.1, 7.4]	1.7% [0.6, 2.9]*	5.8% [3.6, 8.0]
8th	2.4% [0.9, 3.9]	7.5% [4.6, 10.4]	4.5% [2.3, 6.7]	7.7% [5.4, 10.1]
High School	**2012** % [95% CI]	**2014** % [95% CI]	**2016** % [95% CI]	**2018** % [95% CI]
Total	3.8% [3.0, 4.6]	15.1% [12.0, 18.1]	10.5% [8.4, 12.5]	18.5% [15.3, 21.7]
Gender				
Male	5.0% [3.5, 6.5]	16.8% [12.8, 20.7]	12.0% [8.6, 15.3]	20.0% [16.1, 23.9]
Female	2.6% [1.4, 3.7]	13.3% [10.5, 16.1]	9.1% [7.3, 10.9]	17.0% [13.8, 20.2]
Race/Ethnicity				
White	4.3% [3.4, 5.2]	16.3% [12.9, 19.6]	11.6% [9.2, 14.0]	20.9% [18.0, 23.9]
Black	1.1% [0.0, 2.4]*	8.6% [5.8, 11.3]	3.9% [1.9, 5.9]	9.4% [5.5, 13.4]
Hispanic	3.9% [1.8, 6.0]	12.9% [7.5, 18.3]	11.7% [7.4, 15.9]	16.7% [11.5, 21.9]
Grade				
9th	2.4% [1.3, 3.6]	10.3% [7.5, 13.2]	6.2% [3.0, 9.4]	12.0% [9.0, 15.0]
10th	3.6% [2.5, 4.8]	11.7% [8.2, 15.1]	10.8% [7.9, 13.7]	17.8% [13.4, 22.3]
11th	4.3% [2.5, 6.0]	15.5% [11.5, 19.4]	9.5% [6.4, 12.6]	20.4% [15.9, 24.9]
12th	5.0% [3.4, 6.5]	23.5% [15.7, 31.3]	15.8% [11.2, 20.3]	24.1% [17.0, 31.2]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-15. Ever Use and Current (Past 30-Day) Use of JUUL among Middle and High School Students, 2018 IYTS

Ever Use of JUUL

Middle School	2018 % [95% CI]
Total	11.0% [8.8, 13.3]
Gender	
Male	11.9% [9.4, 14.4]
Female	10.1% [7.6, 12.7]
Race/Ethnicity	
White	11.7% [9.4, 14.0]
Black	8.7% [3.3, 14.1]*
Hispanic	10.8% [6.6, 15.0]
Grade	
6th	4.6% [1.6, 7.7]*
7th	12.2% [9.7, 14.8]
8th	16.3% [12.3, 20.4]
High School	**2018** % [95% CI]
Total	36.4% [32.0, 40.8]
Gender	
Male	36.7% [32.5, 41.0]
Female	35.9% [30.4, 41.4]
Race/Ethnicity	
White	39.7% [35.6, 43.9]
Black	25.6% [17.8, 33.4]
Hispanic	29.8% [22.3, 37.4]
Grade	
9th	28.2% [23.7, 32.6]
10th	36.1% [32.2, 40.0]
11th	37.6% [30.8, 44.3]
12th	44.4% [36.9, 51.9]

Current (Past 30-Day) Use of JUUL

Middle School	2018 % [95% CI]
Total	6.0% [4.7, 7.2]
Gender	
Male	6.1% [4.4, 7.8]
Female	5.7% [4.0, 7.4]
Race/Ethnicity	
White	6.4% [5.0, 7.8]
Black	3.7% [1.2, 6.2]*
Hispanic	6.4% [4.2, 8.6]
Grade	
6th	2.7% [0.6, 4.7]*
7th	5.8% [3.7, 7.9]
8th	9.4% [6.8, 11.9]
High School	**2018** % [95% CI]
Total	24.2% [20.6, 27.8]
Gender	
Male	23.6% [19.1, 28.2]
Female	24.7% [21.1, 28.2]
Race/Ethnicity	
White	26.8% [23.3, 30.3]
Black	13.9% [9.1, 18.6]
Hispanic	19.0% [12.9, 25.1]
Grade	
9th	23.5% [15.4, 31.5]
10th	25.0% [21.1, 28.9]
11th	23.4% [18.3, 28.6]
12th	30.3% [23.1, 37.5]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-16. Ever Use and Current (Past 30-Day) Use of Marijuana among Middle and High School Students, 2018 IYTS

Ever Use of Marijuana

Middle School	2018 % [95% CI]
Total	7.4% [5.4, 9.4]
Gender	
Male	7.4% [4.9, 9.8]
Female	7.3% [5.2, 9.5]
Race/Ethnicity	
White	6.5% [4.5, 8.6]
Black	10.8% [6.5, 15.1]
Hispanic	9.0% [6.1, 12.0]
Grade	
6th	2.2% [0.7, 3.8]*
7th	8.1% [5.6, 10.6]
8th	12.0% [8.8, 15.2]
High School	**2018** % [95% CI]
Total	29.0% [24.9, 33.1]
Gender	
Male	28.6% [23.5, 33.7]
Female	29.0% [24.5, 33.5]
Race/Ethnicity	
White	26.0% [21.7, 30.3]
Black	43.5% [37.2, 49.7]
Hispanic	34.4% [28.8, 39.9]
Grade	
9th	18.6% [14.4, 22.9]
10th	24.1% [20.5, 27.6]
11th	31.9% [26.3, 37.5]
12th	42.3% [37.3, 47.3]

Current (Past 30-Day) Use of Marijuana

Middle School	2018 % [95% CI]
Total	4.0% [2.8, 5.3]
Gender	
Male	4.6% [3.0, 6.1]
Female	3.4% [2.2, 4.6]
Race/Ethnicity	
White	3.5% [2.1, 5.0]
Black	6.2% [2.7, 9.8]
Hispanic	5.1% [3.4, 6.8]
Grade	
6th	0.8% [0.1, 1.5]*
7th	4.3% [2.7, 5.9]
8th	7.1% [4.9, 9.4]
High School	**2018** % [95% CI]
Total	16.1% [13.1, 19.0]
Gender	
Male	16.1% [13.2, 19.0]
Female	15.7% [11.7, 19.7]
Race/Ethnicity	
White	13.6% [10.9, 16.4]
Black	24.7% [19.0, 30.4]
Hispanic	21.2% [17.0, 25.5]
Grade	
9th	12.0% [8.7, 15.3]
10th	12.9% [10.2, 15.6]
11th	16.5% [12.4, 20.7]
12th	23.2% [19.1, 27.2]

*Relative standard error greater than 30%. Estimate should be interpreted with caution.

Table A-17. Ever Use of Other Tobacco Products among Middle and High School Students, 2000-2018 IYTS

Middle School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	
Pipes	% [95% CI]	-	-	-	-	-	-	3.5% [2.6, 4.4]	3.3% [2.3, 4.3]	0.9% [0.4, 1.3]	0.8% [0.4, 1.2]
Bidis†	% [95% CI]	5.4% [3.9, 7.0]	5.1% [3.8, 6.4]	4.6% [3.5, 5.7]	3.8% [3.1, 4.6]	2.0% [1.3, 2.7]	1.1% [0.5, 1.7]	1.4% [0.9, 2.0]	1.7% [1.2, 2.2]	0.5%* [0.2, 0.9]	-
Hookahs	% [95% CI]	-	-	-	-	-	1.3% [0.7, 1.8]	1.8% [1.4, 2.3]	2.7% [1.9, 3.5]	2.3% [1.1, 3.5]	2.1% [1.2, 3.1]
Snus	% [95% CI]	-	-	-	-	3.6% [2.1, 5.1]	2.5% [1.5, 3.5]	1.7% [1.1, 2.3]	1.2% [0.5, 1.8]	1.0% [0.6, 1.4]	1.8% [1.2, 2.4]
Dissolvable	% [95% CI]	-	-	-	-	-	0.7% [0.4, 1.0]	0.4% [0.2, 0.7]	0.5%* [0.1, 0.8]	0.7%* [0.1, 1.3]	0.8% [0.4, 1.3]
Roll-your-own cigarettes	% [95% CI]	-	-	-	-	-	4.0% [3.0, 5.0]	4.4% [3.4, 5.4]	3.4% [2.1, 4.6]	1.6% [0.8, 2.4]	2.9% [1.9, 3.9]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Pipes	% [95% CI]	-	-	-	-	-	-	12.7% [10.7, 14.6]	10.4% [8.3, 12.6]	3.2% [2.3, 4.2]	2.6% [1.9, 3.3]
Bidis†	% [95% CI]	8.9% [6.8, 11.1]	6.1% [4.4, 7.8]	7.2% [6.1, 8.3]	4.9% [3.9, 5.8]	3.4% [2.7, 4.1]	3.7% [2.5, 4.8]	2.9% [2.0, 3.8]	3.1% [2.2, 4.0]	1.4% [0.8, 2.0]	-
Hookahs	% [95% CI]	-	-	-	-	-	13.3% [10.0, 16.6]	11.9% [10.0, 13.9]	13.4% [10.6, 16.2]	8.5% [7.1, 9.9]	6.6% [5.0, 8.1]
Snus	% [95% CI]	-	-	-	-	6.9% [6.0, 7.8]	9.2% [7.6, 10.8]	5.8% [4.6, 7.1]	5.3% [3.6, 7.0]	4.1% [2.6, 5.6]	4.9% [3.6, 6.1]
Dissolvable	% [95% CI]	-	-	-	-	-	2.2% [1.5, 3.0]	1.1% [0.6, 1.5]	1.0%* [0.3, 1.7]	1.7% [1.0, 2.5]	1.5% [1.1, 2.0]
Roll-your-own cigarettes	% [95% CI]	-	-	-	-	-	12.5% [10.7, 14.3]	11.3% [8.8, 13.8]	11.7% [8.2, 15.2]	5.6% [4.2, 7.0]	5.7% [4.6, 6.8]

* Relative standard error greater than 30%. Estimate should be interpreted with caution.

†In 2018, ever use of bidis was not measured.

Table A-18. Current (Past 30-Day) Use of Other Tobacco Products among Middle and High School Students, 2000-2018 IYTS

Middle School		2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Pipes	% [95% CI]	2.7% [1.8, 3.7]	2.4% [1.7, 3.1]	1.7% [1.1, 2.4]	2.9% [2.3, 3.5]	1.5% [0.9, 2.1]	1.1% [0.6, 1.6]	1.6% [1.0, 2.2]	1.6% [1.0, 2.2]	0.4%* [0.1, 0.6]	0.3%* [0.0, 0.5]
Bidis†	% [95% CI]	3.6% [2.6, 4.5]	2.2% [1.5, 3.0]	1.7% [0.7, 2.7]	2.1% [1.6, 2.5]	1.4% [0.8, 2.0]	0.4% [0.2, 0.6]	0.7% [0.3, 1.1]	0.4%* [0.1, 0.6]	0.1%* [0.0, 0.2]	-
Hookahs	% [95% CI]	-	-	-	-	-	-	0.7% [0.5, 1.0]	1.3% [0.8, 1.7]	1.0%* [0.3, 1.6]	0.8% [0.3, 1.2]
Snus	% [95% CI]	-	-	-	-	-	-	0.8% [0.4, 1.3]	0.5%* [0.1, 0.9]	0.1%* [0.0, 0.3]	0.5% [0.3, 0.8]
Dissolvable	% [95% CI]	-	-	-	-	-	-	0.2%* [0.0, 0.3]	0.4%* [0.0, 0.9]	0.2%* [0.0, 0.4]	0.7% [0.3, 1.1]
Roll-your-own cigarettes	% [95% CI]	-	-	-	-	-	-	2.5% [1.8, 3.2]	1.6% [0.8, 2.4]	0.5% [0.2, 0.9]	1.3% [0.7, 1.9]
High School		**2000**	**2002**	**2004**	**2006**	**2008**	**2010**	**2012**	**2014**	**2016**	**2018**
Pipes	% [95% CI]	3.7% [2.5, 4.9]	3.8% [2.4, 5.3]	3.8% [3.1, 4.4]	4.4% [3.7, 5.2]	3.1% [2.4, 3.7]	3.1% [2.3, 3.8]	5.2% [3.9, 6.5]	4.9% [3.6, 6.1]	1.3% [0.8, 1.8]	0.9% [0.6, 1.2]
Bidis†	% [95% CI]	2.9% [1.8, 4.0]	2.3% [1.2, 3.4]	3.4% [2.8, 3.9]	2.3% [1.8, 2.8]	1.5% [1.0, 1.9]	1.8% [0.9, 2.6]	1.1% [0.5, 1.7]	1.0% [0.4, 1.6]	0.8% [0.4, 1.3]	-
Hookahs	% [95% CI]	-	-	-	-	-	-	4.0% [2.9, 5.1]	5.3% [4.0, 6.7]	2.5% [1.5, 3.5]	2.1% [1.5, 2.8]
Snus	% [95% CI]	-	-	-	-	-	-	1.9% [1.2, 2.5]	2.0% [1.1, 2.8]	2.0% [1.3, 2.6]	2.0% [1.3, 2.7]
Dissolvable	% [95% CI]	-	-	-	-	-	-	0.5% [0.2, 0.8]	0.8%* [0.2, 1.3]	0.5% [0.2, 0.9]	0.8% [0.5, 1.2]
Roll-your-own cigarettes	% [95% CI]	-	-	-	-	-	-	5.0% [3.3, 6.6]	5.3% [3.2, 7.4]	2.4% [1.6, 3.2]	2.4% [1.6, 3.1]

* Relative standard error greater than 30%. Estimate should be interpreted with caution.
†In 2018, current use of bidis was not measured.

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Appendix

References

[1] Jamal A, Gentzke A, Hu SS, Cullen KA, Apelberg BJ, Homa DM, King BA. Tobacco use among middle and high school students – United Sates, 2011-2016. MMWR. 2017; 66(23):597-603.

[2] Centers for Disease Control and Prevention (CDC). *Best Practices for Comprehensive Tobacco Control Programs – 2014.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[3] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[4] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Young People: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

[5] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[6] Campaign for Tobacco-Free Kids. The Toll of Tobacco in Indiana. October 27, 2017. Accessed November 2, 2017, from https://www.tobaccofreekids.org/facts_issues/toll_us/indiana.

[7] U.S. Department of Health and Human Services. *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[8] Centers for Disease Control and Prevention (CDC). *Best Practices for Comprehensive Tobacco Control Programs – 2014.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[9] Centers for Disease Control and Prevention (CDC). *Best Practices for Comprehensive Tobacco Control Programs – 2014.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[10] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[11] U.S. Department of Health and Human Services. *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[12] Cobb CO, Weaver MF, Eissenberg T. Evaluating the acute effects of oral, non-combustible potential reduced exposure products marketed to smokers. Tob Control. 2010; 19:367–73.

[13] U.S. Department of Health and Human Services. *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[14] U.S. Department of Health and Human Services. *E-Cigarette Use among Youth and Young Adults: A Report of the Surgeon General—Executive Summary.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

[15] Campaign for Tobacco-Free Kids. The Path to Tobacco Addiction Starts at Very Young Ages. January 12, 2017. Accessed July 31, 2017, from https://www.tobaccofreekids.org/research/factsheets/pdf/0127.pdf.

[16] Campaign for Tobacco-Free Kids. The Path to Tobacco Addiction Starts at Very Young Ages. January 12, 2017. Accessed July 31, 2017, from https://www.tobaccofreekids.org/research/factsheets/pdf/0127.pdf.

[17] Jamal A, Gentzke A, Hu S, et al. Tobacco use among middle and high school students – United States, 2011-2016. MMWR. 2017; 66(23): 597-603.

[18] U.S. Department of Health and Human Services. *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[19] Cobb CO, Weaver MF, Eissenberg T. Evaluating the acute effects of oral, non-combustible potential reduced exposure products marketed to smokers. Tob Control. 2010; 19:367–73.

[20] U.S. Department of Health and Human Services. *E-Cigarette Use among Youth and Young Adults: A Report of the Surgeon General—Executive Summary.* Atlanta, GA: U.S. Department of Health and Human Services,

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

[21] U.S. Department of Health and Human Services. *E-Cigarette Use among Youth and Young Adults: A Report of the Surgeon General—Executive Summary.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

[22] Mowery PD, Farrelly MC, Haviland ML, Gable JM, Wells HE. Progression to established smoking among US youths. Am J Public Health. 2004; 94(2): 331-337.

[23] Mowery PD, Farrelly MC, Haviland ML, Gable JM, Wells HE. Progression to established smoking among US youths. Am J Public Health. 2004; 94(2): 331-337.

[24] Institute of Medicine. 2015. Public health implications of raising the minimum age of legal access to tobacco products. Washington, DC: The National Academies Press.

[25] Hersey JC, Ng SW, Nonnemaker JM, Mowery P, Thomas KY, Vilsaint M, et al. Are menthol cigarettes a starter product for youth? Nicotine Tob Res. 2006; 8(3): 403-413.

[26] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[27] Centers for Disease Control and Prevention. Tobacco Brand Preferences. March 3, 2017. Accessed July 31, 2017, from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/brand_preference/index.htm.

[28] Campaign for Tobacco-Free Kids. Not Your Grandfather's Cigar: A New Generation of Cheap and Sweet Cigars Threatens a New Generation of Kids. Accessed July 31, 2017, from https://www.tobaccofreekids.org/content/what_we_do/industry_watch/cigar_report/2013CigarReport_Full.pdf.

[29] Centers for Disease Control and Prevention. Smokeless Tobacco: Health Effects. December 1, 2016. Accessed July 31, 2017, from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/smokeless/health_effects/index.htm.

[30] Hoffman AC, Salgado RV, Dresler C, Williams Faller R, Bartlett C. Flavour preferences in youth versus adults: a review. Tobacco Control. 2016; 25: ii32-ii39.

[31] Ambrose BK, Day HR, Rostron B, et al. Flavored tobacco product use among US youth aged 12-17 years, 2013-2014. JAMA. 2015; 314(17):1871-1873.

[32] Family Smoking Prevention and Tobacco Control Act, Pub L No. 111-31, 123 Stat 1776 (2009).

[33] Hoffman AC, Salgado RV, Dresler C, Williams Faller R, Bartlett C. Flavour preferences in youth versus adults: a review. Tobacco Control. 2016; 25: ii32-ii39.

[34] Jamal A, Gentzke A, Hu SS, Cullen KA, Apelberg BJ, Homa DM, King BA. Tobacco use among middle and high school students – United Sates, 2011-2016. MMWR. 2017; 66(23):597-603.

[35] Jamal A, Gentzke A, Hu SS, Cullen KA, Apelberg BJ, Homa DM, King BA. Tobacco use among middle and high school students – United Sates, 2011-2016. MMWR. 2017; 66(23):597-603.

[36] Hoffman AC, Salgado RV, Dresler C, Williams Faller R, Bartlett C. Flavour preferences in youth versus adults: a review. Tobacco Control. 2016; 25: ii32-ii39.

[37] Ambrose BK, Day HR, Rostron B, et al. Flavored tobacco product use among US youth aged 12-17 years, 2013-2014. JAMA. 2015; 314(17):1871-1873.

[38] Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update*. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.

[39] Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update*. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.

[40] Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs – 2014.* Atlanta: U.S. Department of Health and Human services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[41] Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs – 2014.* Atlanta: U.S. Department of Health and Human services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[42] U.S. Department of Health and Human Services. *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[43] U.S. Department of Health and Human Services. *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

[44] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[45] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for

Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[46] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[47] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[48] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[49] Federal Trade Commission. *Cigarette Report for 2017*. Issued 2019. Accessed July 3, 2019, from https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2015-federal-trade-commission-smokeless-tobacco-report/2015_cigarette_report.pdf.

[50] Federal Trade Commission. *Smokeless Tobacco Report for 2017*. Issued 2019. Accessed July 3, 2019, from https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2015-federal-trade-commission-smokeless-tobacco-report/2015_smokeless_tobacco_report.pdf.

[51] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[52] Centers for Disease Control and Prevention. Tobacco Brand Preferences. March 3, 2017. Accessed July 31, 2017, from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/brand_preference/index.htm.

[53] Federal Trade Commission. *Cigarette Report for 2015*. Issued 2017. Accessed November 2, 2017, from https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2015-federal-trade-commission-smokeless-tobacco-report/2015_cigarette_report.pdf.

[54] Federal Trade Commission. *Smokeless Tobacco Report for 2015*. Issued 2017. Accessed November 2, 2017, from https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2015-federal-trade-commission-smokeless-tobacco-report/2015_smokeless_tobacco_report.pdf.

[55] U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

[56] Centers for Disease Control and Prevention. Tobacco Brand Preferences. March 3, 2017. Accessed July 31, 2017, from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/brand_preference/index.htm.

[57] Pierce JP, Choi WS, Gilpin EA, Farkas AJ, Merritt RK. Validation of susceptibility as a predictor of which adolescents take up smoking in the United States. *Health Psychol.* 1996; 15(5): 355-361.

[58] Mowery PD, Farrelly MC, Haviland ML, Gable JM, Wells HE. Progression to established smoking among US youths. *Am J Public Health.* 2004; 94(2): 331-337.