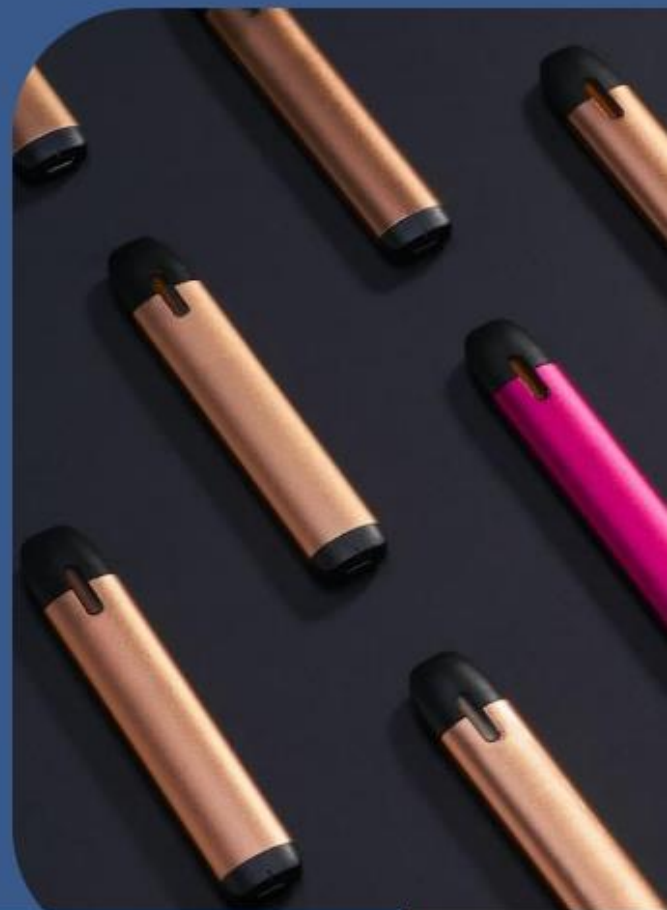


Highlights from the 2022 New York Youth Tobacco Survey

August 2024



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Prepared for

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Executive Summary

Most tobacco^a use begins during youth or early adulthood, and many youth and young adults use flavored tobacco products, which are often more appealing and provide a smoother sensation when inhaled than unflavored or tobacco-flavored tobacco products. This report provides a summary of key 2022 New York Youth Tobacco Survey findings including trends in vaping, cigarette smoking, and perceived harm of vaping or smoking among New York youth.

New York high school students' use of cigarettes has decreased from 27.1% in 2000 to only 2.1% in 2022. However, high school students' use of any tobacco product was 32.8% in 2000 and 21.1% in 2022. Youth tobacco product use in recent years is driven by use of e-cigarettes (also referred to as electronic cigarettes, vaping products, vapor products, and vapes).^b E-cigarette use was higher among New York high school students (18.7%) than middle school students (5.6%) in 2022. The proportion of high schoolers who reported vaping on at least 20 days in the past month has increased from 1.9% in 2014 to 7.9% in 2022.

Most youth get e-cigarettes from social sources; 40.5% of youth who vaped in the past month reported that they shared someone else's e-cigarette. Fewer than 1% of

youth purchased e-cigarettes online. However, 24.2% reported buying e-cigarettes at a vape shop or other store.

New York youth generally report that cigarettes and e-cigarettes are unsafe and that they do not make young people fit in or look cool. More than half of youth in New York report that smoking cigarettes and vaping cause a lot of harm and fewer than 5% of youth report that they would smoke a cigarette if a friend offered them one. Susceptibility to vaping cannabis was much higher. More than one in 10 New York high school students report use of cannabis products and tobacco products in the past 30 days.

Findings from the New York Youth Tobacco Survey reveal that youth access and use of tobacco products is an issue despite New York's implementation of a suite of tobacco control policies intended to reduce accessibility of tobacco products to youth. Findings from this report can be used to strengthen the understanding of youth-specific issues in tobacco control among New York stakeholders and guide the New York Tobacco Control Program's interventions and strategic planning to continue New York's work toward a tobacco-free future.

^a In this report, the term "tobacco" is used in reference to the use of commercial tobacco and not the traditional and ceremonial use of tobacco by tribes and Indigenous communities.

^b Consistent with New York's programmatic approach, this report includes e-cigarettes as tobacco products. Unless we specify "vaping cannabis," we are referring to non-cannabis e-cigarettes.

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Background

Youth Tobacco Use

Tobacco use is the leading cause of preventable disease and death among adults in the United States (U.S.), and nearly all tobacco use begins in youth or early adulthood (Barrington-Trimis et al., 2020; U.S. Food and Drug Administration, 2022). In 2022, 11.3% of middle and high school students reported current tobacco use nationally, and nearly one in four reported ever use (Park-Lee et al., 2022). National youth tobacco use trends have shifted from high use of combustible tobacco products, like cigarettes, toward high use of e-cigarettes (Sun et al., 2021).

What are e-cigarettes?

E-cigarettes are battery-operated devices that deliver nicotine in the form of an aerosol. The aerosols released by e-cigarettes can contain harmful chemicals—they do not create harmless “water vapor.”

E-cigarettes are also referred to as electronic cigarettes, electronic nicotine delivery systems (ENDS), vapes, vaping products, and vapor products.

We use the term “e-cigarettes” throughout this report to refer to these products and the term “vaping” to refer to the act of using these products.



Flavored tobacco products, which mask the tobacco flavor and reduce the harsh sensation of inhalation while smoking, are more appealing to youth (Cummings et al., 2002). Most youth begin tobacco use with a flavored product, as they find sweet flavors more appealing than non-flavored tobacco products and perceive flavored products to be less harmful (Hoffman et al., 2016; Pepper et al., 2016). The 2015 launch of Juul e-cigarettes and the youth-oriented marketing of these products sparked an epidemic of teen use of flavored e-cigarettes, to which federal, state, and local agencies and policy makers responded with policy and education efforts. The 2009 Family Smoking Prevention and Tobacco Control Act prohibited the sale of cigarettes with characterizing flavors other than menthol in the United States, but did not initially restrict the sale of other flavored tobacco products such as e-cigarettes, cigars, and hookah. The rapid proliferation of flavored e-cigarettes within the last decade has bolstered their availability and use among youth nationally. Recognizing the vaping epidemic among youth, New York State implemented a statewide restriction on the sale of flavored e-cigarettes in 2020. New York State legalized the use of cannabis for New York adults (21 years of age and older) in 2021,

raising the importance of monitoring the co-use of tobacco and cannabis among youth, including use of blunts and e-cigarettes with cannabis.

The New York Tobacco Control Program, administered by the New York State Department of Health, pursues goals of decreasing tobacco^c use initiation, increasing quitting, eliminating secondhand smoke exposure, and advancing health equity. The Program uses a range of indicators from the New York Youth Tobacco Survey to inform strategic planning, implement programmatic initiatives, and assess progress towards its goals related to youth.

Purpose of This Report

This report provides a summary of key 2022 New York Youth Tobacco Survey findings, including trends in tobacco-related behaviors, attitudes, and perceptions among New York youth. These key metrics are intended to assist the New York Tobacco Control Program and its stakeholders in assessing progress over time, identifying policy-strengthening opportunities, and raising awareness of emerging topics of concern. Findings from this report can be used to strengthen New York policymakers' understanding of youth-specific issues in tobacco control and guide New York Tobacco Control Program programmatic interventions and evaluation planning to continue New York's progress toward a tobacco-free future.

^c In this report, the term "tobacco" is used in reference to the use of commercial tobacco and not the traditional and ceremonial use of tobacco by tribes and Indigenous communities.

Methods

This report explores findings from the New York Youth Tobacco Survey which is a school-based representative survey of New York middle and high school students in grades 6 through 12. The New York Youth Tobacco Survey is conducted statewide biennially in the spring of even years (e.g., Spring 2022) to monitor trends in youth tobacco use, attitudes, and access to tobacco products. The data gathered from this survey supports evaluations of the effects of tobacco control interventions. The survey includes key outcome indicators relevant to accomplishing New York Tobacco Control Program's objectives, including perceptions and use of cigarettes, e-cigarettes, and other tobacco products. The survey has evolved over time to reflect changes in tobacco products and tobacco control policies.

The New York Youth Tobacco Survey was first administered in 2000, and the most recent data collection was completed in the spring of 2022. Classrooms in public, parochial, and private middle and high schools are randomly selected to administer the New York Youth Tobacco Survey and each student is invited to participate in the survey. Students completed the survey on paper from 2000 through 2020. Until 2020, the number of completed surveys has averaged about 8,500. In 2020, the COVID-19 pandemic prompted school closures, causing data collection to cease approximately halfway through. Although data collection ended earlier than planned, an assessment of nonresponse bias suggests the 2020 estimates are reliable. Beginning with the 2022 administration, participating schools were offered the option to have students complete the survey online or on paper. Approximately 4,600 students completed the New York Youth Tobacco Survey in 2022.

New York Youth Tobacco Survey data presented in this report primarily focus on 2022 estimates, with the inclusion of some trends over time. The New York State Department of Health 2019-2024 Prevention Agenda (an action plan addressing chronic

disease) informed the measures selected for inclusion in this report (Appendix A). The survey included the following tobacco products: cigarettes, cigar products (large cigars, little cigars, and cigarillos), e-cigarettes, and other tobacco products (including chewing tobacco, snuff, snus, dip, dissolvables, waterpipe/hookah, pipe tobacco, heated tobacco products, and nicotine pouches).^d We also report briefly on youth smoking and vaping of cannabis^e products, including co-use of tobacco and cannabis. Although we include estimates of cannabis product use in this report, our summary of use of any tobacco product does not include cannabis/blunt products; this is consistent with CDC reports on youth tobacco use (e.g., Birdsey et al., 2024). *Current use* is defined as having used a tobacco and/or cannabis product at least once in the past 30 days.

^d Nicotine pouches, as described by CDC, are “microfiber pouches with flavored nicotine powder that users dissolve in the mouth without spitting.”

^e We use the term “cannabis” throughout this report to refer to cannabis or marijuana (except when quoting directly from the survey, which occasionally uses the term marijuana).

Results

Tobacco Use Behaviors

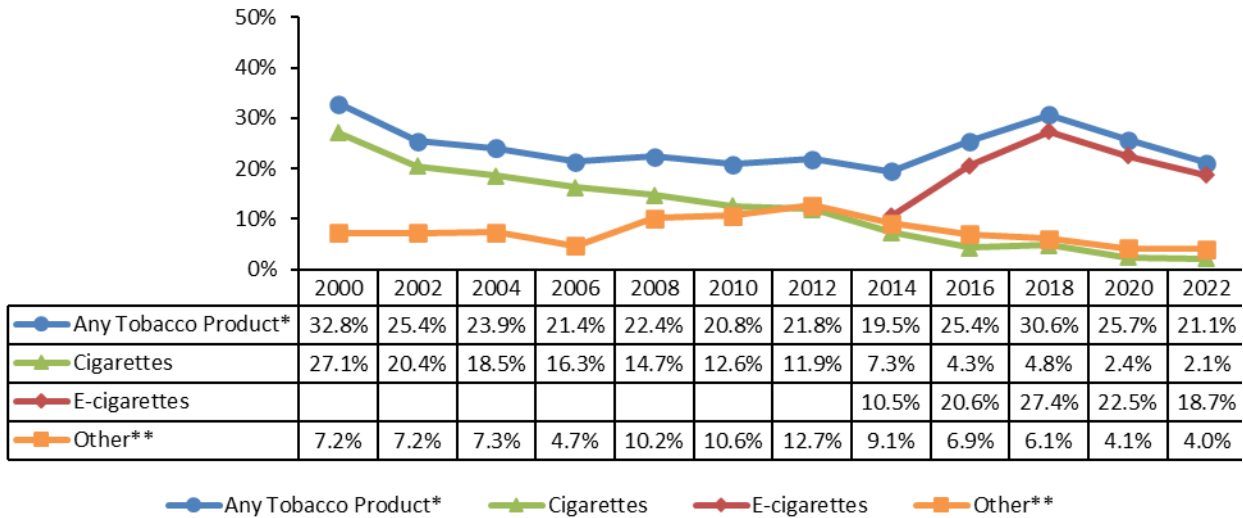
Current (past 30-day) Tobacco Use

There have been significant declines in cigarette smoking among New York youth since 2000, as well as a recent declining trend in any tobacco product use from 2018 to 2022 (30.6% to 21.1%). Since 2014, youth e-cigarette use in New York has surpassed youth use rates of all other tobacco products. In New York, e-cigarette use peaked at 27.4% among high school students in 2018, followed by a decline in rates in 2020 and 2022. These trends for New York youth use are similar to national e-cigarette use trends. According to the National Youth Tobacco Survey, which began asking about e-cigarette use in 2011, e-cigarette use spiked nationally in 2014, reaching its peak in 2019 with 27.5% of national high school students reporting use of e-cigarettes.

In recent years, reported use of e-cigarettes has driven the rates of overall use of any tobacco product among NY high school students.

Although current cigarette use among New York high school students continued its steady decline from a peak of 27.1% in 2000 to a low of 2.1% in 2022, current use of any tobacco product has not followed any significant trend over time (Figure 1).

Figure 1. Trends in Current Tobacco Product Use among High School Students in New York, New York Youth Tobacco Survey, 2000-2022



*Any Tobacco Product: cigarettes, cigars (large cigars, cigarillos, or little cigars), smokeless tobacco (chew, snuff, dip, snus, or dissolvables), hookah (or waterpipe), e-cigarettes, or other tobacco products (pipes, bidis, kreteks, heated tobacco products, and nicotine pouches). Survey questions addressing various tobacco products have varied over time; specifically, data regarding e-cigarette use were first available in 2014, hookah use data were first available in 2008, bidi and kretek use data were available from 2000 to 2010, pipe use data were available for all years except 2010 and 2012, snus use data were available in 2012, and dissolvable use data were first available in 2014. Nicotine pouch and heated tobacco product data were added to this measure in 2022.

** Other = Tobacco products other than cigarettes and e-cigarettes. This includes smokeless tobacco (chewing tobacco, snuff, snus, dip, or dissolvables), bidis and kreteks, waterpipe/hookah, pipe tobacco, heated tobacco products, and nicotine pouches.

More New York youth reported using e-cigarettes than any other tobacco product in 2022 (Table 1). Due to the low reported use of cigarettes and other tobacco products among New York youth, estimates for these measures cannot be reliably reported by gender, grade level, or other demographic characteristics. During 2022, 15.9% of New York youth who identify as female reported current use of e-cigarettes, compared with 10.6% of those who identify as male (see Table 1). It is important to recognize that a variety of gender identities exist and some youth identify outside the male/female gender binary. Tobacco use by youth who identify as another gender did not differ from estimates of tobacco use among youth who identify as male or as female. E-cigarette use and use of any tobacco product is higher among high schoolers than among middle schoolers. In 2022, 18.7% of New York high school students reported vaping and 21.1% reported use of any tobacco product. Nearly a quarter of students in grade 12 (24.3%) reported current use of any tobacco product – this is

the highest rate of tobacco use reported among any grade level (6-12). Among New York middle school students, 5.6% reported vaping and 6.7% reported use of any tobacco product in 2022. Youth who identify as Asian, non-Hispanic had the lowest prevalence of e-cigarette use (4.0%) and of any tobacco product use (4.9%) when compared to youth in all other race/ethnicity groups (see Table 1). Youth in New York City had a lower prevalence of vaping (10.1%) and any tobacco product use (12.7%) than youth in the rest of the state (15.3% vaping; 16.9% any tobacco product). Appendix Tables B and C include estimates for additional tobacco products.

Table 1. New York Youth Current Use of E-cigarettes and of Any Tobacco Product, Overall and by Demographic Characteristics, New York Youth Tobacco Survey, 2022

Youth use of any tobacco product is largely comprised of e-cigarette use.

Characteristic	E-cigarette Use	Any Tobacco Product Use
Overall	13.2%	15.2%
Gender		
Male	10.6%	12.9%
Female	15.9%	17.2%
Another gender	15.7%	18.3%
School level and grade		
<i>Middle School</i>	5.6%	6.7%
Grade 6	4.6%	6.6%
Grade 7	6.8%	7.5%
Grade 8	5.5%	6.7%
<i>High School</i>	18.7%	21.1%
Grade 9	16.0%	18.3%
Grade 10	18.9%	20.9%
Grade 11	18.0%	21.2%
Grade 12	22.1%	24.3%
Race/Ethnicity**		
Hispanic, Latino/a or Spanish origin	13.3%	16.4%
American Indian or Alaska Native	*	*
Asian	4.0%	4.9%
Black or African American	11.8%	13.6%
Native Hawaiian or Other Pacific Islander	*	*
White	15.2%	16.7%
Location		
New York City	10.1%	12.7%
Rest of State	15.3%	16.9%

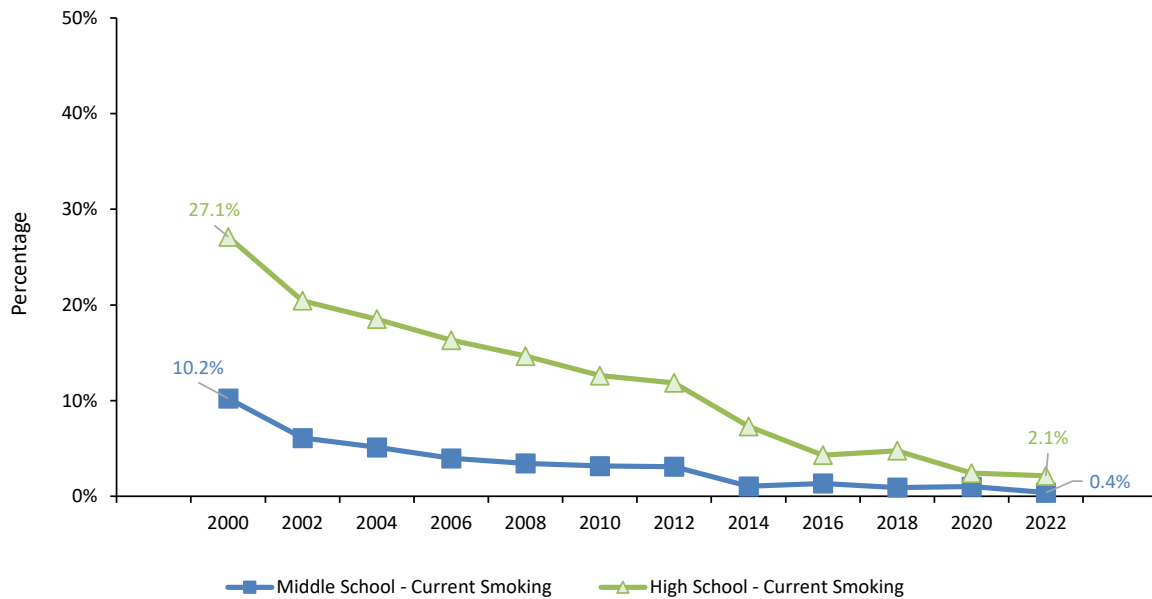
* Estimate suppressed due to high standard error or low number of observations.

** All race/ethnicity categories other than Hispanic, Latino/a or Spanish origin are non-Hispanic.

Cigarette smoking among New York school youth has decreased dramatically over the past 20 years.

Current cigarette smoking has declined over the past two decades among both middle and high school students (Figure 2). In 2000, 10.2% of middle school students and 27.1% of high school students reported current cigarette smoking. In contrast, by 2022, only 0.4% of middle school students and 2.1% of high school students reported current cigarette use.

Figure 2. Percentage of New York Middle School and High School Students Who Currently Smoke Cigarettes, New York Youth Tobacco Survey, 2000–2022



Frequency and Consumption: Vaping

The proportion of all high school students who reported vaping on 20–30 days out of the past 30 days went from 1.9% in 2014 to 7.9% in 2022. However, most New York middle and high school students do not use e-cigarettes.

In 2022, 5.6% of New York middle school students and 18.6% of high school students reported current e-cigarette use, with current use defined as use within the past 30 days (Figures 3 and 4). Among all middle school students, fewer than 1% reported vaping 20 to 30 days in the past month. However, a higher percentage of high school students reported vaping 20 to 30 days in the past month (7.9%), which is concerning. Interestingly, despite the school-level differences in frequency of e-cigarette use, 54.8% of middle school students and 54.8% of high school students who currently vape reported that they want to quit vaping, either “somewhat” or “a lot” (data not shown).

Figure 3. Number of Days Vaped in Past 30 Days among New York Middle School Students, New York Youth Tobacco Survey, 2014–2022

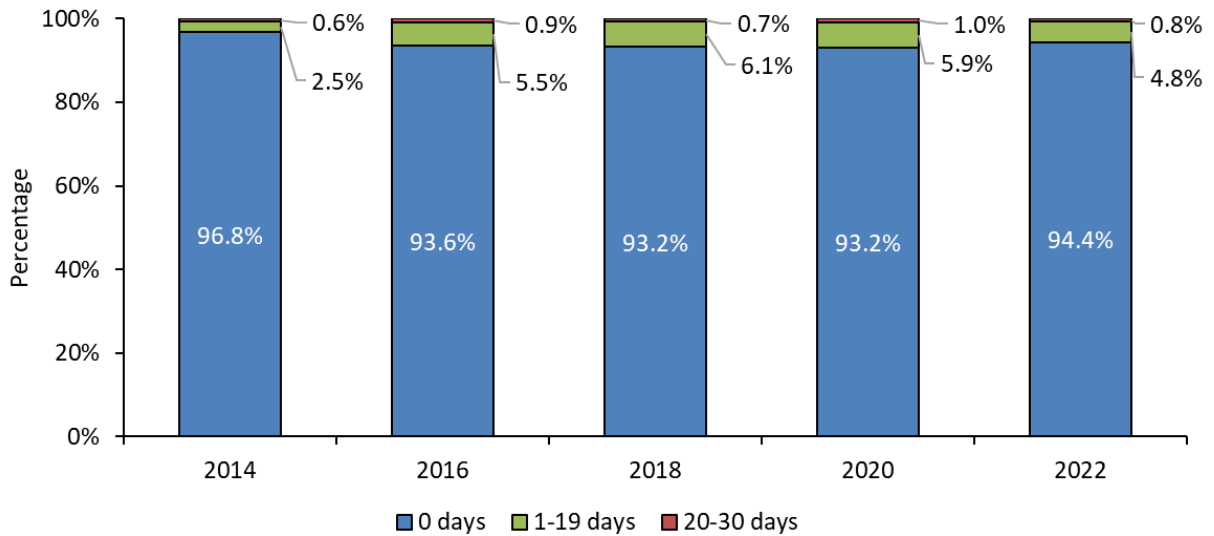
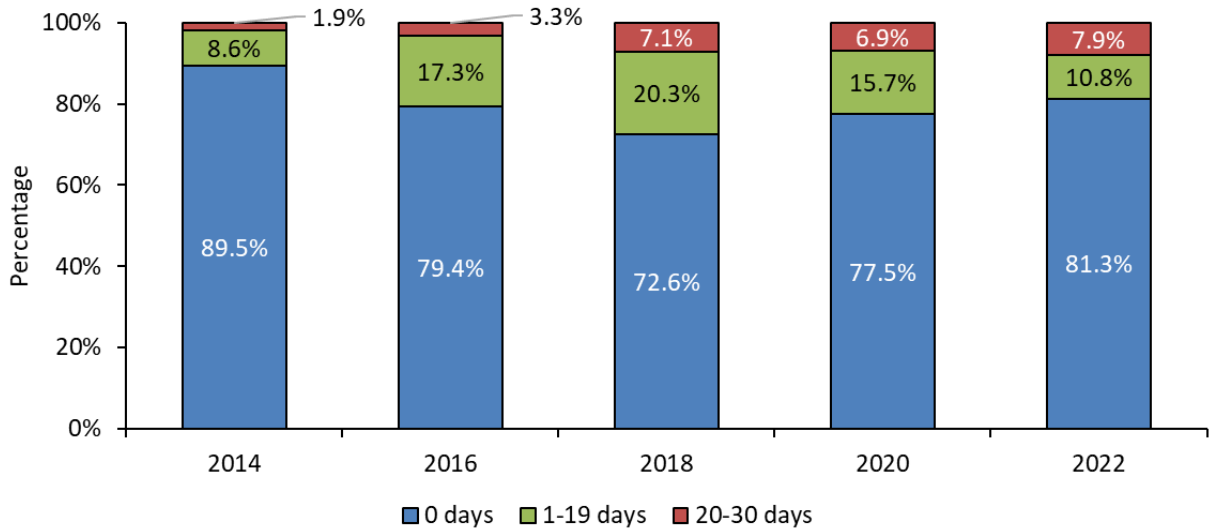
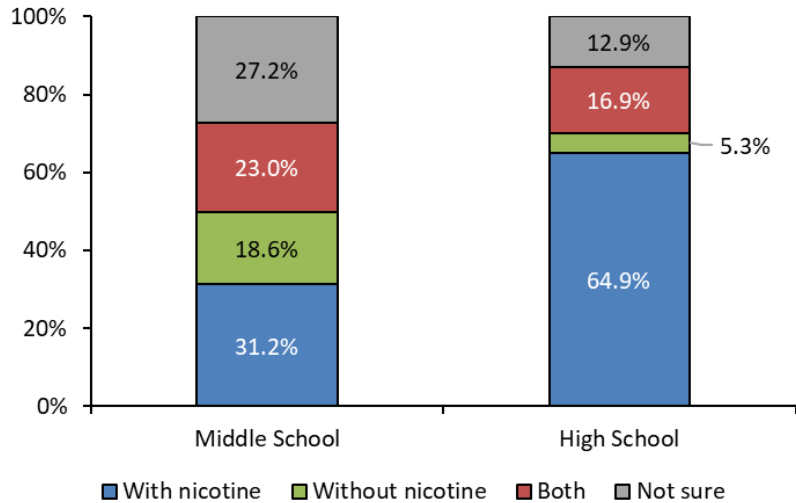


Figure 4. Number of Days Vaped in Past 30 days among New York High School Students, New York Youth Tobacco Survey, 2014–2022



Most middle and high school students who reported current vaping reported using e-cigarettes with nicotine (Figure 5). Middle school students who reported current vaping more often reporting not knowing whether their e-cigarettes contained nicotine (27.2%), compared to those in high school (12.9%).

Figure 5. Nicotine Content in Non-cannabis E-cigarettes among New York Middle and High School Students Who Currently Vape, New York Youth Tobacco Survey, 2022



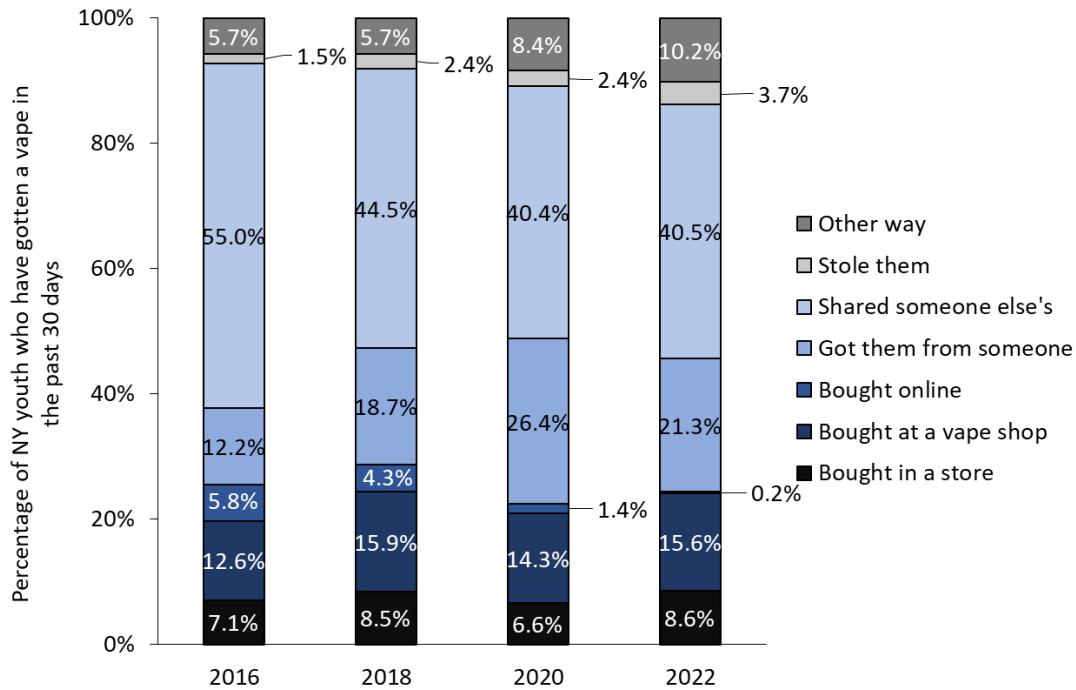
Most New York youth who vape non-cannabis products report using e-cigarettes with nicotine.

Source of E-cigarettes

Since 2016, most youth who vaped in the past 30 days reported obtaining e-cigarettes from someone else (Figure 6). More than 20% of New York youth who reported obtaining their own e-cigarette in the past 30 days purchased it from a store or vape shop in recent years, revealing underage access to tobacco and e-cigarettes persists despite a 2019 statewide law restricting the sale of tobacco and e-cigarettes to anyone under 21 years of age. Very few youth reported obtaining e-cigarettes online.

Most New York youth who vape get their e-cigarettes from social sources.

Figure 6. Sources of E-cigarettes among New York Youth Who Vaped in the Past 30 Days, New York Youth Tobacco Survey (2016–2022)



Use of Multiple Tobacco Products

In 2022, New York youth current use (defined as use at least once in the past 30 days) of multiple tobacco products was relatively low (3.5%); only 1.3% of middle school students and 4.9% of high school students reported using two or more different types of tobacco products in 2022. Multiple tobacco product use was similar among youth in New York City (3.7%) and youth in the rest of New York State (3.3%). There were no notable differences in multiple product use between youth identifying as male (3.2%) and youth identifying as female (3.4%) (Appendix Table B).

Use of Flavored Tobacco Products

Most New York high school youth who use e-cigarettes report using flavored products, which indicates flavored product availability persists despite the 2020 statewide sales restriction on flavored e-cigarettes (Figure 7, center panel). For cigar products, which are exempt from both current federal- and state-level flavor restrictions (but covered under New York City’s prohibition on non-menthol flavored tobacco products), nearly half of high

Flavored product use is common among New York high school students who smoke or use e-cigarettes.

school students who reported current use of cigar products reported using flavors. Nearly nine out of 10 high school students who reported current use of e-cigarettes reported using flavors. The use of sweet, alcohol, or other flavors was the most commonly reported flavor category (76.4%) among high school students who currently vape.

In 2022, among the 1.2% of middle school students and 9.6% of high school students who reported current use of blunts (a cigar with cannabis in it), around one in three students (38.3% middle school; 33.3% high school) reported using flavored blunts.



Among high school students who currently use cigarettes, 29% report using menthol cigarettes

Among high school students who currently use e-cigarettes, 90% report using flavored e-cigarettes



Among high school students who currently use cigars, 45% report using flavored cigars

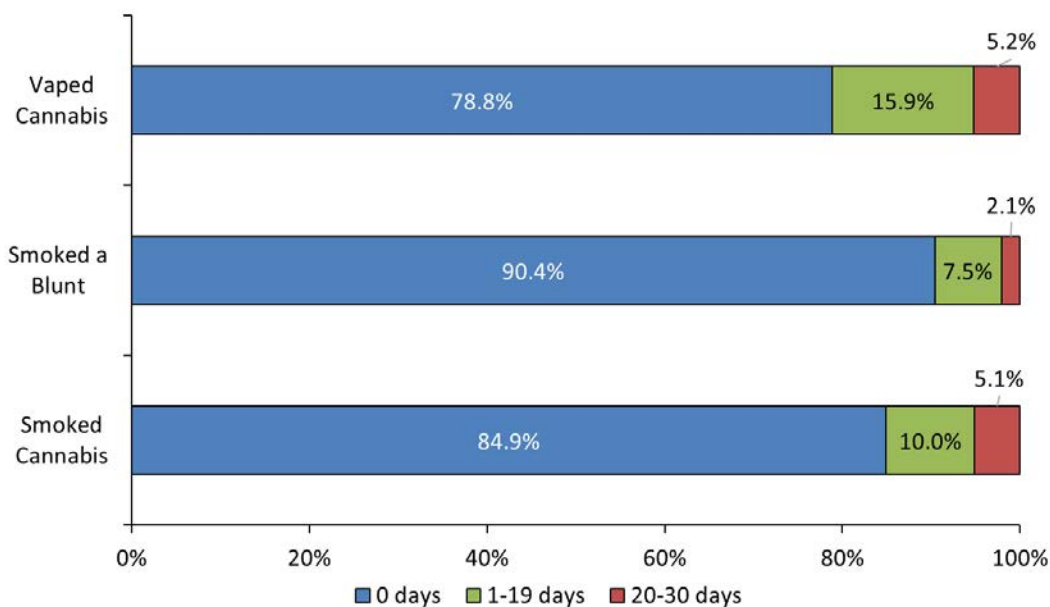
Note: "Flavored" indicates menthol, mint or other flavor that is not tobacco-flavored.

Co-use of Tobacco and Cannabis

12.3% of high school students reported having used both tobacco and cannabis products in the past 30 days.

In 2022, 12.3% of New York high school students reported use of any tobacco product and any cannabis product in the past 30 days (data not shown). This includes smoking or vaping cannabis or smoking blunts (a cigar with cannabis in it). Among New York high school students, 21.1% reported current use of any tobacco product and 18.1% reported current use of smoking or vaping cannabis in 2022. Although most New York high school students reported not vaping cannabis (78.8%), not smoking cannabis (84.9%), and not smoking a blunt (84.9%) in the past 30 days, a sizable minority reported use in the past 30 days (Figure 8). More than one in five high school students reported vaping cannabis (21.1%), smoking cannabis (15.1%), and/or smoking a blunt (9.6%) at least once in the past 30 days. Youth use was more common between 1 and 19 days for vaping cannabis (15.9%), smoking cannabis (10.0%), and smoking blunts (7.5%) in 2022 than use on 20 days or more of the past 30 days (Figure 8). Roughly equal numbers of high school students reported use 20 to 30 days out of the past 30 days for vaping cannabis (5.2%) and smoking cannabis (5.1%), with 2.1% reporting having smoked a blunt 20 to 30 days of the past 30 days.

Figure 8. Percentage of High School Youth Reporting Frequency of Vaping Cannabis, Smoking Blunts, and Smoking Cannabis in the Past 30 Days, New York Youth Tobacco Survey, 2022



Tobacco-Related Attitudes, Perceptions, and Susceptibility

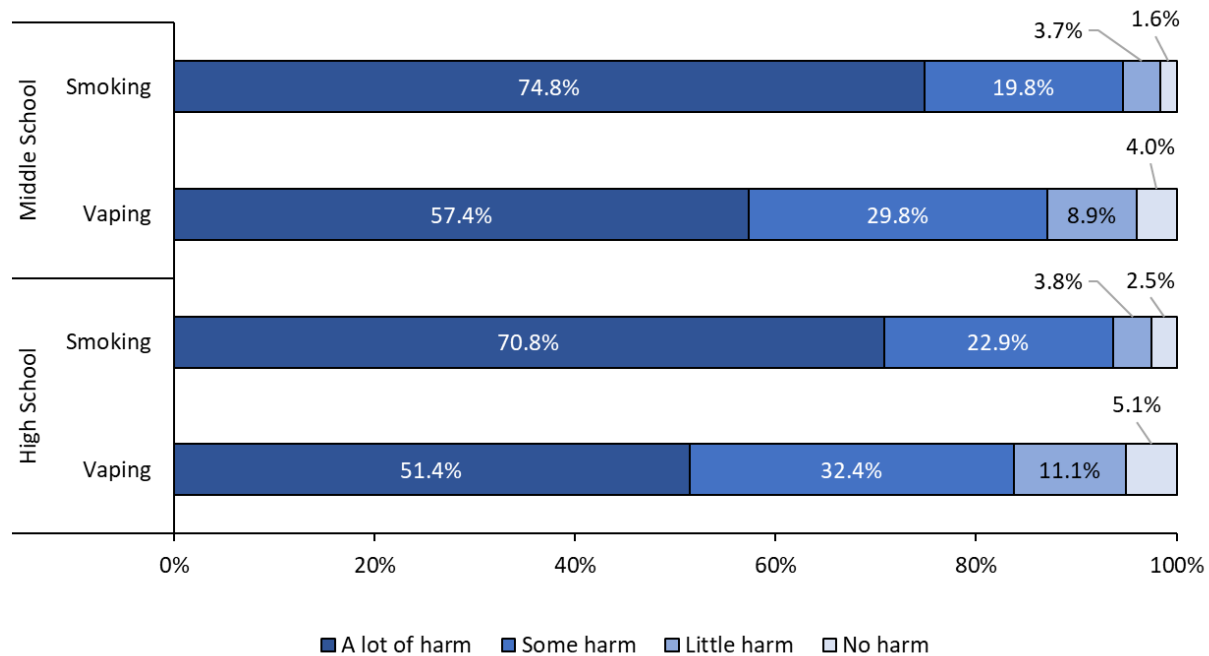
This section presents middle and high school students’ attitudes toward various tobacco and cannabis products. Understanding how youth perceive the harmfulness of cigarette smoking and vaping, the addictiveness of cigarettes and e-cigarettes, and their intentions to try smoking cigarettes, vaping, and/or vaping cannabis help to contextualize tobacco use behaviors assessed by the New York Youth Tobacco Survey.

Most New York youth perceive cigarette smoking and e-cigarette use to be harmful.

Perceived Harm: Smoking and Vaping

More than seven out of 10 middle and high school students reported cigarette smoking to cause “a lot of harm,” while just over half of middle and high school students reported the same sentiment for vaping (Figure 9). Harm perceptions of vaping were lower than those for smoking; over 80% of middle and high school students reported vaping to be at least somewhat or very harmful.

Figure 9. Harm Perceptions of Use of Cigarettes and E-cigarettes among Middle and High School Students, New York Youth Tobacco Survey, 2022

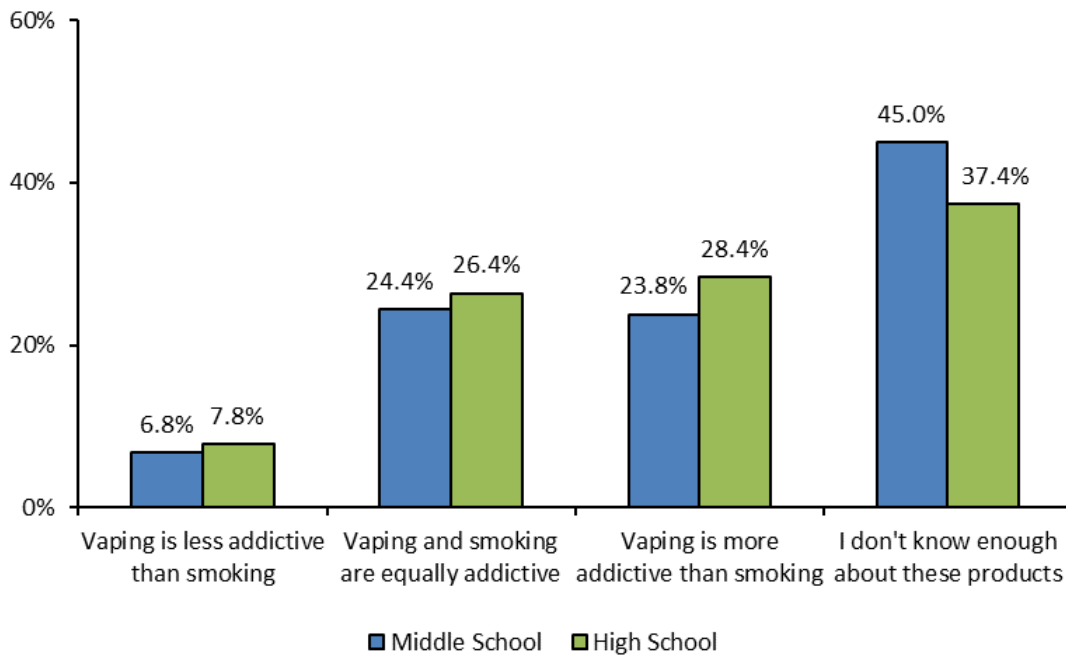


Perceived Addictiveness of Cigarette Smoking vs. Vaping

In New York, 45.0% of middle school students and 37.4% of high school students reported not knowing enough about smoking or vaping to compare how addictive they are.

Youths’ developing brains are highly susceptible to nicotine dependence. A combined analysis of 2014 and 2016 data from the National Youth Tobacco Survey found that youth who reported initiating tobacco use around age 13 or younger had a greater likelihood of current use and nicotine dependence at follow-up (Sharapova et al., 2020). In New York, 45.0% of middle school students and 37.4% of high school students reported that they did not know enough about smoking or vaping to compare the addictiveness of the products in 2022; however, less than 10% of both middle and high school students believed that vaping is less addictive than smoking (Figure 10). Similar percentages of middle and high school students perceived vaping to be as addictive or more addictive than smoking (see Figure 10). Fewer than 8% of middle and high school students perceived vaping to be less addictive than smoking.

Figure 10. Beliefs About the Addictiveness of E-cigarettes Compared to Cigarette Smoking among Middle and High School Students, New York Youth Tobacco Survey, 2022



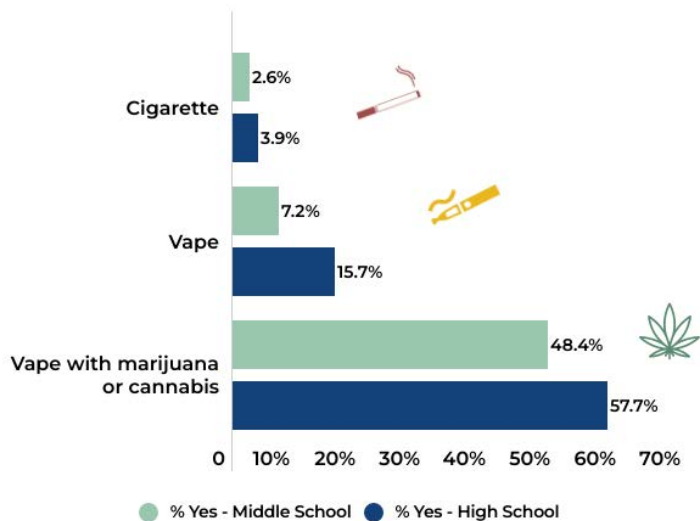
Susceptibility to Use

In general, youth tend to be vulnerable to peer influence, including influence towards risk-taking behavior like smoking (Albert & Steinberg, 2011). However, cigarette smoking in the United States has become less socially acceptable, due in large part to the many states and cities that have implemented policies that reduce the availability, appeal, and accessibility of tobacco products through comprehensive smoke-free laws, restrictions on advertising, and laws that ban or heavily restrict the sale of flavored tobacco products (Cummings, 2016), as well as decreasing cigarette smoking rates among youth and adults. With fewer youth smoking cigarettes, there is likely less peer pressure to experiment with smoking. In 2022, New York middle and high school students reported low rates of susceptibility to trying cigarettes or e-cigarettes if a friend offered (among those who do not use these products). Fewer than one in 20 New York youth reported that they would smoke a cigarette if their friend offered them one (Figure 11). Openness to using a vape offered by a friend was reported by 15.7% of New York high school youth (see Figure 11). Both middle and high school students had a higher prevalence of reporting they would accept a friend's offer to vape marijuana or cannabis compared with cigarettes or e-cigarettes. About half of middle school students (48.4%) and over half of high school students (57.7%) reported they would accept a friend's offer to vape marijuana (see Figure 11).

Figure 11. Susceptibility among New York Youth to Try Various Products, New York Youth Tobacco Survey, 2022

About half of New York middle school students and over half of high school students would accept a friend's offer to vape marijuana or cannabis.

Percent of NY youth who would use a product if their friend offered it

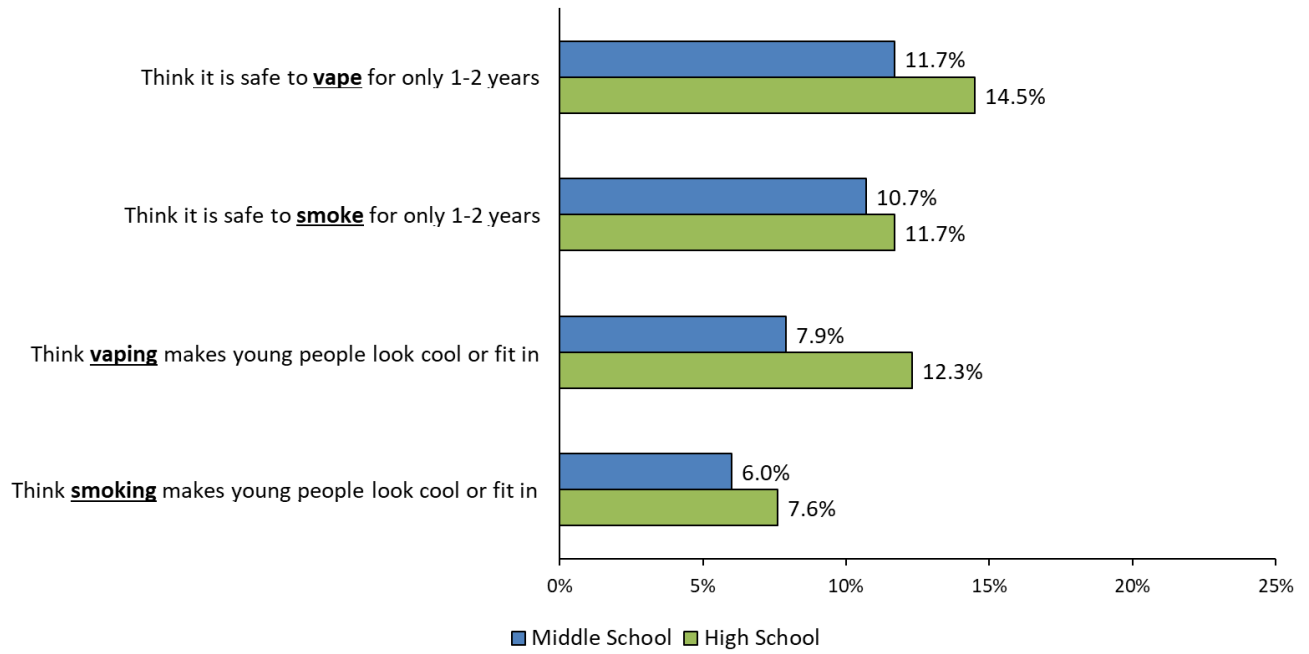


Willingness to smoke a cigarette if a friend offered one was higher among middle and high school youth who currently vape, compared with youth who do not vape (data not shown). Among middle school youth who vape, 14.8% would smoke a cigarette if offered, compared to only 1.7% of middle school youth who do not vape. Among high school youth who vape, 13.9% would smoke a cigarette if offered, compared to only 1.9% of high school youth who do not vape.

Most high school and middle school youth do not think that cigarettes and e-cigarettes are safe to use or make young people look cool or fit in.

Most high school and middle school youth do not think that cigarettes and e-cigarettes are safe to use or make young people look cool or fit in (Figure 12). Only 11.7% of middle school students and 14.5% of high school students report thinking it is safe to vape for only 1 to 2 years as long as they quit after that, and even fewer report thinking it is safe to smoke cigarettes for only one to two years. In 2022, 7.9% of middle school students and 12.3% of high school students reported thinking vaping makes young people look cool or fit in (see Figure 12). The prevalence of thinking smoking makes young people look cool or fit in is even lower, with only 6.0% of middle school students and 7.6% of high school reporting smoking makes young people look cool or fit in.

Figure 12. Perceptions of Vaping and Smoking among Middle and High School Students, New York Youth Tobacco Survey, 2022



Discussion

New York youth use of cigarettes has decreased significantly since 2000, and youth e-cigarette use has started to decline in recent years. However, more than one in five New York high school students (21.1%) reported currently using tobacco in 2022. Most youth tobacco product use continues to be comprised of e-cigarette use. Use of tobacco and cannabis products, frequency of use, and susceptibility to try tobacco and cannabis products is higher among high school students than middle school students. High school students are more likely than middle school students to believe smoking and/or vaping for only a year or two is safe, and they are more likely to think vaping makes people look cool or fit in.

Although there have been steady declines in cigarette smoking, ongoing prevention and intervention activities need to address today's issue of youth vaping to prevent youth tobacco use initiation and addiction.

To address tobacco use and advance health equity, New York has implemented evidence-based tobacco control policies to restrict youth access to and availability of youth-appealing products and reduce exposure to secondhand smoke. The tobacco industry has a history of targeting youth with flavored tobacco products and marketing. The recent implementation of a statewide restriction on the sale of all flavored e-cigarettes in New York has the potential to reduce product appeal and tobacco industry influence and youth tobacco use. However, findings from the 2022 New York Youth Tobacco Survey show that youth access to flavored e-cigarettes persists. Approximately nine out of 10 New York high school youth who use e-cigarettes reported flavored product use, with most youth reporting use of sweet, alcohol, or other flavored products.

Although New York youth susceptibility to trying cigarettes or e-cigarettes was low, interest in cannabis was high, particularly among high school youth. More than half of New York high school

youth reported that they were open to vaping cannabis. More than one in 10 New York high school youth reported having used a tobacco product and a cannabis product within the past 30 days. The co-use of tobacco and cannabis results in a complicated context that requires ongoing attention.

There are differences in youth tobacco use by age, and there may be differences by other demographic characteristics related to social and commercial determinants of health. Due to the study sample, we are limited in how we can stratify tobacco product use among youth by demographic characteristics. To explore differences by gender identity, racial/ethnic groups, or other characteristics, a larger, more representative survey sample would be needed.

Youth tobacco use is a public health priority, especially as the tobacco product market and youth health-related behaviors continue to change. This report provides information for the New York Tobacco Control Program, New York decision makers, and public health stakeholders regarding recent shifts and emerging trends in youth tobacco use and evidence of the continued use of flavored products and underage access to tobacco products. These findings can be combined with insights from communities across the state to inform education, interventions, policy approaches, and supports to improve public health behaviors and outcomes among New York youth.

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Appendix A

Appendix A: 2019–2024 NYSDOH Prevention Agenda Targets and 2022 Updates Regarding Youth Tobacco Use

Goals and Objectives	Data Source	Baseline Estimate (year)	Current Estimate (2022)		Target Estimate (2024)	
3.1 Prevent Initiation of Tobacco Use						
3.1.1 Decrease the prevalence of any tobacco use by high school students	New York Youth Tobacco Survey	25.4% (2016)	21.1%	↓	19.7%	<input type="checkbox"/>
3.1.2 Decrease the prevalence of combustible cigarette use by high school students	New York Youth Tobacco Survey	4.3% (2016)	2.1%	↓	3.3%	<input checked="" type="checkbox"/>
3.1.3 Decrease the prevalence of e-cigarette use by high school students	New York Youth Tobacco Survey	20.6% (2016)	18.7%	↓	15.9%	<input type="checkbox"/>

These objectives are excerpted from the [2019-2024 New York State Department of Health Prevention Agenda](#).

Appendix B

Appendix B. Percentage of Students Who Currently Use Tobacco Products, by Selected Demographic Characteristics and Type of Tobacco Product, New York Youth Tobacco Survey, 2022

Characteristic	Tobacco Product Use					
	E-cigarettes	Cigarettes	Cigars/cigarillos	Other Tobacco Products**	Any tobacco product*	≥ 2 tobacco products
Total	13.2%	1.4%	0.9%	3.1%	15.2%	3.5%
Gender						
Male	10.6%	1.5%	1.3%	3.1%	12.9%	3.2%
Female	15.9%	1.2%	S	2.8%	17.2%	3.4%
Another gender	S	S	S	S	18.3%	S
School Level						
Middle school	5.6%	S	S	S	6.7%	S
High School	18.7%	2.1%	1.1%	4.0%	21.1%	4.9%
Grade						
Grade 6	4.6%	S	S	S	6.6%	S
Grade 7	6.8%	S	S	S	7.5%	S
Grade 8	5.5%	S	S	S	6.7%	S
Grade 9	16.0%	S	S	S	18.3%	S
Grade 10	18.9%	S	S	S	20.9%	S
Grade 11	18.0%	S	S	S	21.2%	S
Grade 12	22.1%	S	S	S	24.3%	S
Race/Ethnicity***						
Hispanic, Latino/a or Spanish origin	13.3%	1.7%	1.1%	4.4%	16.4%	4.3%
Asian	4.0%	S	S	S	4.9%	S
Black or African American	11.8%	S	S	2.2%	13.6%	S
White	15.2%	1.6%	S	2.8%	16.7%	3.6%
Location						
New York City	10.1%	1.5%	0.9%	3.7%	12.7%	3.7%
Rest of State	15.3%	1.4%	0.9%	2.7%	16.9%	3.3%

*Any Tobacco Product = cigarettes, e-cigarettes, cigars, cigarillos, little cigars, chewing tobacco, snuff, snus, dip, or dissolvables, hookah/waterpipe, pipe tobacco, heated tobacco products, and nicotine pouches

** Other Tobacco Products = chewing tobacco, snuff, snus, dip, or dissolvables, hookah/waterpipe, pipe tobacco, heated tobacco products, and nicotine pouches

***Data suppressed for American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander due to high standard error or low number of observations.

All race/ethnicity categories other than Hispanic, Latino/a or Spanish origin are non-Hispanic.

S = Estimate suppressed due to high standard error or low number of observations.

Appendix C

Appendix C. Percentage of New York Middle and High School Students Who Currently Use Cannabis or Marijuana Products, by Selected Demographic Characteristics and Type of Product, New York Youth Tobacco Survey, 2022

Characteristic	Cannabis Product Use				Co-use
	Smoking Cannabis	Vaping Cannabis	Blunts	Any Cannabis	Any Cannabis + Any Tobacco*
Total	9.7%	7.8%	6.2%	11.7%	7.9%
Gender					
Male	9.2%	7.5%	5.8%	10.9%	6.7%
Female	9.9%	8.3%	6.7%	12.2%	9.2%
Another gender	16.4%	8.4%	5.8%	18.8%	10.0%
School Level					
Middle school	1.8%	1.2%	1.2%	2.5%	1.6%
High School	15.1%	12.6%	9.6%	18.1%	12.3%
Grade					
Grade 6	S	S	S	2.2%	2.0%
Grade 7	S	S	S	2.3%	1.2%
Grade 8	S	S	S	3.6%	2.3%
Grade 9	S	S	S	11.3%	9.2%
Grade 10	S	S	S	18.7%	12.9%
Grade 11	S	S	S	18.7%	13.0%
Grade 12	S	S	S	24.3%	14.5%
Race/Ethnicity**					
Hispanic, Latino/a or Spanish origin	7.7%	6.9%	5.2%	10.1%	7.6%
Asian	1.7%	2.6%	1.1%	3.0%	1.6%
Black or African American	8.8%	5.8%	5.8%	11.1%	7.4%
White	12.8%	10.1%	7.9%	14.5%	9.4%
Location					
New York City	7.6%	5.5%	4.6%	9.3%	6.3%
Rest of State	11.1%	9.5%	7.2%	13.4%	9.1%

*Any Tobacco Product = cigarettes, e-cigarettes, cigars, cigarillos, little cigars, chewing tobacco, snuff, snus, dip, or dissolvables, hookah/waterpipe, pipe tobacco, heated tobacco products, and nicotine pouches

**Data suppressed for American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander due to high standard error or low number of observations.

All race/ethnicity categories other than Hispanic, Latino/a or Spanish origin are non-Hispanic.

S = Estimate suppressed due to high standard error or low number of observations.



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