

2024 Results

Prepared by

Rachel Clodfelter, MPH Lauren McCarl Dutra, ScD, MA Brian Bradfield, BA Burton Levine, MA, MS Laura Baum, MPH, MA Sara Russell, MS Meera Sumith, MPH

Prepared for the California Department of Public Health, California Tobacco Prevention Program



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RTI International, 3040 E. Cornwallis Road, Durham, NC 27713-2852

Results of the 2024 California Youth Tobacco Survey

Report

March 2025

Prepared for

California Department of Public Health, California Tobacco Prevention Program

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Rachel Clodfelter, MPH Lauren McCarl Dutra, ScD, MA Brian Bradfield, BA Burton Levine, MA, MS Laura Baum, MPH, MA Sara Russell, MS Meera Sumith, MPH RTI International 3040 E. Cornwallis Road Durham, NC 27713-2852

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Executive Summary

This report summarizes the main results from the 2024 California Youth Tobacco Survey (CYTS). The CYTS has been administered annually to 8th-, 10th-, and 12th-grade students from California middle and high schools since 2021 and, prior to 2021, once every 2 years. Data collection for the 2024 survey occurred between January and June 2024. Schools and classrooms within schools were randomly selected. The sample was designed to provide state-level estimates of tobacco use among youth in California. In 2024, 105 schools and 16,207 students who consented participated in the survey and provided valid survey data (see Appendix B for additional information). The survey was administered online during the school day. Most respondents completed the survey at their school, except for those engaged in virtual learning or independent study.

The survey was designed to assess the use of, knowledge of, and attitudes toward tobacco products, including cigarettes, vapes, little cigars or cigarillos, cigars, hookah, smokeless tobacco, heated tobacco products (HTPs), and nicotine pouches. The survey also examined social and environmental exposure to tobacco. Cannabis and alcohol were included in the survey because the co-use of cannabis and alcohol with tobacco products is common. This report primarily focuses on high school respondents (6,766 respondents in 10th grade and 5,882 in 12th grade). Key results for 8th graders (3,559) are presented in Chapter 9.

In this year's report, we compare changes in tobacco use for high school students between the 2022, 2023 and 2024 administrations of the CYTS (Chapter 8).

Appendix B provides a brief overview of the survey methodology. Additional details about the sampling strategy, survey administration, and statistical analysis can be found in the *Technical Report on Analytic Methods and Approaches Used in the California Youth Tobacco Survey 2024*, by Russell et al.¹ Appendix B also includes information about comparing CYTS estimates between 2022 and 2023 and information about the criteria we used to label estimates as imprecise and to suppress specific estimates. For definitions of the terminology included in table footnotes, see the definitions for analytic terms section in Appendix A.

Key Findings

Tobacco Use Behavior (Chapters 1 and 2)

- In 2024, 19.8% of California high school students reported ever using tobacco, and 6.4% currently used tobacco.
- Current use of vapes was 5.0%, and use of nicotine pouches was 1.4%. Current use of cigarettes was 1.3%.
- Current tobacco use varied by demographics:
 - Gender identity: Compared with respondents identifying as male (6.0%) or female (6.1%), current use was higher among respondents who identified their gender in another way (14.5%).
 - Race/ethnicity: Non-Hispanic White respondents reported the highest current tobacco use (10.5%), and Asian respondents (3.1%) reported the lowest.
 - *Grade*: Current use was higher among 12th-grade respondents (8.3%) than 10th-grade respondents (4.7%).
 - Lesbian, gay, bisexual, transgender, queer or questioning (LGBTQ+) status:
 Current use was highest among LGBTQ+ respondents (10.3%), followed by those of unclear LGBTQ+ status (7.2%) and non-LGBTQ+ respondents (5.7%).
 - General mental health status: Current use was highest among respondents reporting poor mental health (11.6%), followed by those reporting fair (6.7%) and good to excellent mental health (5.5%).
 - *Rurality*: Current use was highest among respondents attending schools located in town or rural settings (9.8%), compared to those attending schools in a city (6.1%) or suburban settings (6.0%).
- About one-third (31.0%) of respondents who were currently using tobacco reported using more than one tobacco product, but there were differences across demographics.
- More than 60% (63.6%) of high school students reported one or more experiences of discrimination a few times or more in the past month, and the most-endorsed experience of discrimination was "people acted as if they think you are not smart."
- Attempting to quit and intention to quit vaping varied by demographic (for example, attempts and intention were lower among respondents in town or rural settings compared to those in city or suburban settings).
- Most respondents who were currently using tobacco reported using a flavored product (84.5%); fruit was the most popular flavor among those who were currently vaping (43.8%).

Methods of Accessing Vapes and Cigarettes (Chapter 3)

- Respondents' most common method of obtaining vapes was buying their own (39.6%). Of those who did so, the most-reported sources were buying them from another person (25.5%) or buying them from a tobacco or smoke shop (25.1%).
- Respondents' most common method of obtaining cigarettes was buying their own (35.8%). Among those who bought their own, "gas station or convenience store" was the most-reported point of sale (45.3%).
- Perceived ease of access to vapes was highest for getting vapes from someone else (68.2%), compared to getting them from the internet (65.7%) or from a store (49.7%). The same pattern was found for cigarettes (59.3% someone else, 57.0% internet, 38.3% from a store).
- Perceived ease of access to vapes or cigarettes from someone else, the internet, or the store varied by current vaping and cigarette-smoking status.

Secondhand Exposure and Other Environmental Influences (Chapter 4)

- Less than a third of high school respondents reported exposure to vapor (26.5%), smoke (13.5%), or either vapor or smoke (30.3%) in a car or room in the past 2 weeks.
- More than half of respondents reported exposure to either vapor or smoke (64.3%) outside in the past 2 weeks.
- Exposure to secondhand vapor, secondhand smoke, and secondhand vapor or smoke in a car or room varied by race/ethnicity and vaping and smoking status.
 - The highest exposure to vapor, smoke, or either product was reported by respondents who were currently vaping (77.0% vapor, 32.0% smoke, 78.9% either) and smoking tobacco (75.9% vapor, 49.5% smoke, 81.0% either).
- About half (49.9%) of respondents living in multiunit housing reported past-6-month exposure to tobacco smoke in the home.
- Most respondents reported a complete home ban on vaping (84.3%) and smoking (81.7%).
- Very few respondents reported having a favorite vaping ad (3.3%), but this item varied by vaping status, with 13.4% of currently vaping respondents reporting having a favorite ad.
- About two-thirds of students reported having been exposed to vaping on social media in the past 30 days (70.4%), and about half reported being exposed to cigarette smoking on social media in the past 30 days (58.5%); self-reported exposure varied by vaping or smoking status.

• About a third of students reported paying attention to social media posts about vaping (41.1%), and self-report varied by vaping status.

Tobacco Susceptibility and Knowledge, Attitudes, and Beliefs (Chapter 5)

- Overall, 42.9% of respondents who had never used vapes, cigarettes, and/or little cigars or cigarillos (LCCs) were susceptible to future use of one or more of these products. Susceptibility varied by demographic.
- Susceptibility to vapes (36.1%) was higher than susceptibility to cigarettes (20.2%) and LCCs (20.8%). Susceptibility to individual products varied by demographics.
- Prevalence of susceptibility to vaping was higher among high school respondents who reported that some (46.5%) or most/all (46.9%) of their friends used vapes, compared to those who reported that none of their friends used vapes (28.0%).
- The most-endorsed reason for vaping was "to relax or relieve stress and anxiety" (33.1%) among respondents who currently used vapes.
- Almost all respondents believed adults would feel negatively about vaping (96.4%) and smoking (96.7%).
- About half of respondents believed their close friends and peers viewed vaping negatively (54.0%), and more than three-quarters had the same belief for cigarette smoking (83.0%). Beliefs about vaping varied by vaping status, and beliefs about cigarette smoking varied by cigarette-smoking status.

Attitudes About Ending the Tobacco Epidemic (Chapter 6)

- About two-thirds of respondents supported a complete tobacco sales ban (60.7%), a public smoking ban (71.3%), and a ban on flavored tobacco sales (66.9%).
- Support varied by vaping status and cigarette-smoking status and demographics.

Cannabis Use (Chapter 7)

- Current cannabis use (7.9%) was higher among high school respondents than current tobacco use (6.4%), but ever use was similar (19.8% tobacco, 19.6% cannabis).
- Ever and current cannabis use varied by demographics.
 - Current cannabis use was highest among those who identified their gender in another way (13.3%), identified as White (11.9%), were in 12th grade (10.3%), identified as LGBTQ+ (13.2%), reported poor mental health (13.8%), or attended a school in a town or rural area (11.6%).
- The most common method of consuming cannabis was smoking it (48.9%), followed by vaping it (37.5%).

- Approximately the same proportion of high school respondents reported currently consuming cannabis without tobacco (4.0%) as those who reported current co-use of cannabis and tobacco (3.8%).
- Co-use of tobacco and cannabis varied by gender, race/ethnicity, grade, LGBTQ+ status, and mental health.

Comparisons of Tobacco and Cannabis Use Between 2022, 2023 and 2024 (Chapter 8)

- Ever tobacco use remained consistent over time, from 20.3% in 2022 to 19.8% in 2024; the same was true for current tobacco use (6.6% in 2022, 6.4% in 2024).
- Ever vaping declined significantly from 18.3% in 2023 to 16.0% in 2024; current vaping remained consistent over time, from 5.6% to 5.0%.
- Ever and current use of nicotine patches increased significantly between 2022 (ever: 2.4%, current: 0.6%) and 2024 (ever: 3.6%, current: 1.4%).
- Current use of hookah increased significantly between 2022 (0.4%) and 2023 (0.7%).
- Use of flavored tobacco products declined over time (86.3% in 2022 to 84.5% in 2024), but not significantly.
- There were significant changes over time for current use of any tobacco and some tobacco products in specific demographic categories.
- Among Hispanic respondents, current tobacco use decreased significantly between 2023 and 2024, from 6.3% to 5.1%, and current vape use decreased significantly (5.1% to 4.1%). Current cigarette smoking increased significantly between 2022 and 2024 in respondents who identified their gender in another way (3.6% to 8.0%) and among respondents in the "other" race category (0.1% to 2.8%). Current cigarette smoking increased significantly between 2023 (1.1%) and 2024 (2.6%) among respondents of unclear LGBTQ+ status.
- Current LCC use decreased significantly between 2023 and 2024 among Hispanic (0.7% to 0.4%) and Asian (0.4% to 0.0%) respondents and among 10th-grade respondents (0.6% to 0.3%).
- Current cigar smoking increased significantly between 2022 and 2024 among respondents who identified their gender in another way (1.4% to 5.7%) and among respondents attending schools in cities (0.5% to 1.0%). Cigar smoking increased significantly among LGBTQ+ respondents between 2022 (0.7%) and 2023 (1.5%). Cigar smoking decreased significantly among respondents attending schools in town or rural settings between 2023 (1.3%) and 2024 (0.6%).

- Current hookah use increased significantly from 2022 to 2024 among Asian respondents (0.0% to 0.2%) and respondents of unclear LGBTQ+ status (0.2% to 1.2%). Between 2022 and 2023, current hookah use increased significantly for 12th graders (0.5% to 1.0%) and respondents with good to excellent mental health (0.4% to 0.8%).
- Current smokeless tobacco use increased significantly among Asian respondents between 2022 (0.0%) and 2023 (0.5%); however, it declined significantly between 2023 (0.5%) and 2024 (0.1%). The same pattern was observed for current smokeless use among respondents attending schools in town or rural settings (2022: 0.3%, 2023: 1.1%, 2024: 0.4%). Current smokeless use increased significantly among 10th graders between 2022 (0.2%) and 2023 (0.6%).
- Current use of HTPs increased among Asian respondents from 2022 (0.0%) to 2023 (0.5%) and among non-LGBTQ+ respondents between 2022 and 2024 (0.1% to 0.3%). There were significant increases in current nicotine pouch use between 2022 and 2024 for many demographic groups, including males, respondents who identified their gender in another way, White respondents, Asian respondents, non-LGBTQ+ individuals, and respondents in both 10th and 12th grades, all categories of mental health status, and attending schools in both cities and suburban areas.
- Ever and current use of cannabis decreased significantly between 2023 (ever: 23.0%, current: 10.4%) and 2024 (ever: 19.6%, current: 7.9%).
- Significant decreases were observed between 2023 and 2024 for ever cannabis use for males and females, African American/Black respondents, multiracial respondents, 12th graders, LGBTQ+ and non-LGBTQ+ respondents, those with good to excellent mental health, and respondents attending schools in cities. For multiracial respondents, the decrease between 2023 and 2024 was preceded by an increase between 2022 and 2023.
- Significant decreases were observed between 2023 and 2024 for current cannabis use for females, African American/Black respondents, Hispanic respondents, 12th graders, LGBTQ+ and non-LGBTQ+ respondents, respondents with good to excellent and poor mental health, and respondents attending schools in cities or suburban areas. For females and African American/Black respondents, these decreases were preceded by increases between 2022 and 2023. For "other" race respondents, current use increased significantly between 2022 and 2024.
- Current cannabis-only use and current cannabis and tobacco co-use decreased between 2023 and 2024 (cannabis only: 5.5% to 4.0%; co-use: 4.9% to 3.8%).

- There were significant decreases in current cannabis-only use between 2023 and 2024 for females, African American/Black respondents, 12th graders, respondents with good to excellent mental health, and respondents attending schools in cities. For females, African American/Black respondents, and respondents with good to excellent mental health, these decreases were preceded by increases between 2022 and 2023. Current cannabis-only use increased significantly between 2022 and 2023 among other race respondents and non-LGBTQ+ respondents.
- Current cannabis and tobacco co-use decreased significantly between 2023 and 2024 for Hispanic and other race respondents and non-LGBTQ+ respondents. For non-LGBTQ+ respondents, this decrease was preceded by an increase in co-use between 2022 and 2023. Other race respondents experienced an increase in co-use between 2022 and 2023.

8th-Grade Tobacco Use (Chapter 9)

- Ever tobacco use was 11.6% among 8th-grade respondents, and current use was 3.0%.
- There were differences in current tobacco use by race/ethnicity, LGBTQ+ status, and mental health status.
- Prevalence of current tobacco use was lower for 8th-grade respondents (3.0%) than for high school respondents (6.4%).
- Current vaping was the most common form of current tobacco use, with 2.5% of 8th-grade respondents reporting current vaping; this estimate is lower than the percentage of high school students reporting current vaping (5.0%).
- The only significant change in ever or current tobacco use over time for 8th graders was an increase in ever cigar use between 2022 (0.7%) and 2024 (1.2%).
- Almost all 8th graders who were currently using tobacco (79.8%) and currently vaping (82.9%) reported using flavored products.
- The most common method of accessing vapes was obtaining them in a way that was not listed in the survey (21.9%).
- Eighth-grade respondents reported lower secondhand exposure to vapor in a car or room (17.6%) and outside (37.7%) than high school respondents (26.5% in a car or room, 43.0% outside). They also reported lower exposure to smoke in multiunit housing (45.2% versus 49.9%).
- Eighth-grade respondents reported higher exposure to tobacco smoke in a car or room (14.9%) and outside (61.4%) than high school respondents (13.5% in a car or room, 58.6% outside).

- Ever and current prevalence of cannabis use was lower among 8th-grade respondents (7.7% and 2.3%, respectively) than high school students (19.6% ever, 7.9% current).
- Exposure to secondhand cannabis smoke in a car or room (9.8%) and exposure outside (23.8%) among 8th-grade respondents were lower than high school respondents (17.9% car or room, 31.8% outside).

1. Tobacco Use Behavior, Overall and for Priority Populations

This chapter presents high school tobacco use behavior data from the 2024 California Youth Tobacco Survey (CYTS), including both ever and current use of various tobacco products. "Ever use" is defined as any tobacco use in one's lifetime, and "current use" is defined as any use within the last 30 days. In this report, the terms "current use" and "last-30-day use" are used interchangeably. This chapter also provides the overall prevalence rates of tobacco product use and the frequency of current use of products. Additionally, it presents the use of multiple tobacco products (i.e., polytobacco use). See Chapter 9 for tobacco use among 8th-grade respondents.

This chapter also presents high school tobacco use among members of specific groups, including different gender identities, races/ethnicities, and grade levels. Because of high observed tobacco use among members of priority populations, the chapter also examines use by lesbian, gay, bisexual, transgender, queer or questioning (LGBTQ+) status²; mental health³; rurality⁴; and experiences of discrimination.^{5,6} Because of higher use of multiple tobacco products among LGBTQ+ individuals² (compared to individuals who do not identify as LGBTQ+), this chapter also examines polytobacco use by LGBTQ+ status. In addition, this chapter examines characteristics of respondents who were currently vaping, those who had attempted to quit vaping in the last 12 months, and those who intended to quit vaping in the next 30 days.

1.1 Tobacco Use among High School Respondents

Respondents were asked not to include cannabis products when answering questions about their use of tobacco products. Table 1-1 presents ever and current use of tobacco products among high school respondents. The first row of Table 1-1 indicates any tobacco use (use of one or more of the tobacco products in the survey). Ever use of any tobacco product was 19.8% and current use was 6.4%. For current use of specific tobacco products, use of vapes was highest (5.0%), followed by nicotine pouches (1.4%). Current use of cigarettes was 1.3%. Less than 1% of high school respondents were currently using cigars (0.7%), hookah (0.5%), heated tobacco products (HTPs) (0.5%), little cigars or cigarillos (LCCs) (0.4%), or smokeless tobacco (0.4%).

1.2 Frequency of Tobacco Use

The 2024 CYTS asked respondents currently using a tobacco product to indicate how many of the last 30 days they had used the product. Table 1-2 presents the mean frequency of use among respondents who were currently using each product. Of the 5.0% of high school respondents who reported vaping in the last 30 days, 39.8% reported frequent vaping (20 or more days in the last 30 days). Among respondents who were currently using vapes, 27.9% reported doing so daily in the last 30 days (daily use not shown in table). Frequent use (20 or more days in the last month) was the most common response for respondents who were using

vapes, LCCs, hookah, and HTPs. For cigarettes, cigars, and nicotine pouches, having used the product either 1 day or 2 days of the last 30 were the most common responses.

	Ever use	Current use
	<i>N</i> = 12,535	<i>N</i> = 12,535
Tobacco product	% (95% CI)	% (95% CI)
Any tobacco use	19.8 (18.4–21.2)	6.4 (5.6–7.4)
Vapes	16.0 (14.8–17.3)	5.0 (4.3–5.7)
Cigarettes	5.5 (4.7–6.4)	1.3 (0.9–1.8)
LCCs	2.0 (1.6–2.4)	0.4 (0.3–0.6)
Cigars	2.9 (2.4–3.5)	0.7 (0.5–1.0)
Hookah	2.2 (1.8–2.6)	0.5 (0.4–0.7)
Smokeless	1.3 (1.1–1.6)	0.4 (0.3–0.6)
HTPs	1.3 (1.0–1.6)	0.5 (0.3–0.7)
Nicotine pouches	3.6 (2.9–4.4)	1.4 (1.0–1.8)

Table 1-1.Prevalence of Ever and Current Use of Tobacco Products among High School
Respondents

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

Table 1-2.Frequency of Current Use among High School Respondents Who Were Currently Using a
Given Tobacco Product

		1 or 2 days	3–5 days	6–19 days	20–30 days	
Tobacco product	N	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	
Vapes	610	25.4 (21.3–29.9)	19.3 (15.6–23.4)	15.5 (11.7–19.9)	39.8 (35.1–44.7)	
Cigarettes	145	37.3 (29.2–46.0)	21.5 (15.2–28.9)	15.8 (9.3–24.5)	25.3 (16.4–36.1)	
LCCs	52	36.6† (20.1–55.9)	13.5† (5.6–25.8)	9.9† (3.3–21.6)	40.0+ (25.3–56.1)	
Cigars	72	41.8 (27.6–56.9)	7.4† (2.4–16.7)	14.2† (5.2–28.9)	36.7† (22.5–52.8)	
Hookah	66	39.6 (26.1–54.4)	12.4† (5.7–22.5)	6.3† (1.5–16.7)	41.6 (28.0–56.3)	
Smokeless	47		16.7† (6.7–32.0)	21.7 (11.6–35.2)	37.4† (21.0–56.3)	
HTPs	61	35.7 (23.3–49.7)	6.6† (2.0–15.5)	19.2 (9.3–33.2)	38.4 (25.1–53.1)	
Nicotine pouches	159	49.4 (40.9–57.9)	14.0 (8.8–20.8)	15.4 (9.5–23.1)	21.2 (13.7–30.4)	

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate. For more information about Korn-Graubard confidence intervals, see Appendix A.

1.3 Tobacco Use by Gender Identity

Table 1-3 presents current use of each tobacco product by gender identity. The gender identity category "identified in another way" includes respondents who reported their gender as "something else" or "I'm not sure yet." Due to small sample sizes, we excluded respondents who declined to answer questions about gender identity from the report.

Respondents who identified their gender in another way (14.5%) had a higher prevalence of current use of any tobacco product than those who identified as female (6.1%) or male (6.0%). This pattern persisted among individual tobacco products. Female respondents had a higher prevalence of vaping (5.3%) compared to males (4.3%), but males had a higher prevalence of use than females for all other remaining tobacco products.

	N =	Male : 6,274	Female N = 5,776		Identified in another way N = 467	
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)
Any tobacco use	6.0	(5.2–7.0)	6.1	(5.0–7.4)	14.5	(10.3–19.6)
Vapes	4.3	(3.7–4.9)	5.3	(4.3–6.5)	9.7	(6.4–14.0)
Cigarettes	1.2	(0.7–1.9)	0.8	(0.4–1.4)	8.0	(5.3–11.4)
LCCs	0.4	(0.2–0.7)	0.2	(0.1–0.4)	3.8	(2.2–6.1)
Cigars	0.8	(0.5–1.1)	0.2	(0.1–0.4)	5.7	(2.8–10.1)
Hookah	0.4	(0.3–0.6)	0.3	(0.2–0.5)	3.8	(2.1–6.3)
Smokeless	0.4	(0.2–0.5)	0.2	(0.1–0.4)	3.1	(1.7–5.3)
HTPs	0.4	(0.3–0.6)	0.3	(0.1–0.5)	3.6	(1.8–6.2)
Nicotine pouches	1.8	(1.2-2.5)	0.7	(0.4–1.0)	4.7	(2.9–7.0)

Table 1-3.Prevalence of Current Use of Tobacco Products among High School Respondents, by
Gender Identity

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

1.4 Tobacco Use by Race/Ethnicity

Tables 1-4a and 1-4b present tobacco use by race/ethnicity. The race/ethnicity variable was created by combining responses to two questions, one about Hispanic ethnicity and the other about race (Hispanic was not considered a race in the 2024 survey). Tables 1-4a and 1-4b include all race/ethnicity categories created by combining Hispanic ethnicity with the response options for race. American Indian or Alaska Native (AI/AN), Native Hawaiian or other Pacific Islander (NHOPI), and respondents who did not identify with any of the races listed in the survey are collapsed into a category called "other" due to small sample sizes. For more information on demographic variables used in the survey, see Appendix A.

Tables 1-4a and 1-4b present race/ethnicity differences in current use of any tobacco product. For any tobacco use, non-Hispanic White (hereafter, White) high school respondents had the highest current use (10.5%) followed by respondents who identified as other race (8.9%) and multiracial (8.3%). Asian respondents reported the lowest current use of any tobacco product (3.1%). White respondents reported the highest use of vapes (7.6%), while Asian respondents reported the lowest (2.2%). For cigarette smoking, White and other race respondents reported the highest use (both 2.8%), while Asian respondents reported the lowest use (0.6%).

	White <i>N</i> = 2,155		African American or Black <i>N</i> = 612		Hispanic N = 7,189	
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)
Any tobacco use	10.5	(8.6–12.5)	5.9	(3.3–9.7)	5.1	(4.4–6.0)
Vapes	7.6	(6.4–9.1)	4.9	(2.5–8.5)	4.1	(3.5–4.9)
Cigarettes	2.8	(1.5–4.8)	0.9	(0.2–2.4)	0.7	(0.5–0.9)
LCCs	0.6	(0.2–1.3)	1.5	(0.4–3.9)	0.4	(0.3–0.6)
Cigars	1.2	(0.7–1.8)	1.2	(0.3–3.1)	0.6	(0.3–0.9)
Hookah	0.7	(0.3–1.2)	0.6	(0.1–2.3)	0.4	(0.3–0.7)
Smokeless	0.4	(0.1–0.8)	1.2	(0.4–2.9)	0.4	(0.3–0.6)
HTPs	0.5	(0.2–0.9)	1.1	(0.3–2.8)	0.4	(0.3–0.6)
Nicotine pouches	3.4	(2.5–4.5)	1.6	(0.6–3.6)	0.7	(0.5–1.0)

Table 1-4a.Prevalence of Current Use of Tobacco Products among High School Respondents, by
Race/Ethnicity

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

Table 1-4b.	Prevalence of Current Use of Tobacco Products among High School Respondents, by
	Race/Ethnicity

	م = N	sian 1,384	C N	Other = 338	Multiracial <i>N =</i> 822		
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Any tobacco use	3.1	(2.3–4.0)	8.9	(6.0–12.8)	8.3	(6.3–10.7)	
Vapes	2.2	(1.5–3.1)	7.5	(4.7–11.2)	6.2	(4.8–8.0)	
Cigarettes	0.6	(0.3–1.0)	2.8	(1.3–5.1)	2.0	(1.0–3.7)	
LCCs	0.0	(0.0–0.3)	0.2	(0.0–1.2)	0.3	(0.1–1.0)	
Cigars	0.2	(0.0–0.5)	1.2	(0.3–3.0)	0.5	(0.1–1.5)	
Hookah	0.2	(0.1–0.6)	0.6	(0.1–2.2)	0.9	(0.4–1.9)	
Smokeless	0.1	(0.0–0.3)	0.2	(0.0–1.2)	0.5	(0.1–1.3)	
HTPs	0.2	(0.0–0.6)	0.2	(0.0–1.2)	1.0	(0.4–2.0)	
Nicotine pouches	0.7	(0.3–1.4)	2.3	(1.0–4.3)	1.4	(0.6–2.6)	

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

1.5 Tobacco Use by Grade

Table 1-5 presents current tobacco use by grade. Current use of any tobacco product was higher among 12th-grade respondents (8.3%) than 10th-grade respondents (4.7%). Current use of specific tobacco products was also higher among 12th graders than 10th graders, except for hookah, which had similar levels of use by both 10th and 12th graders (both 0.5%).

Grade						
	10th grade <i>N</i> = 6,703		12th grade N = 5,832			
Tobacco product	%	(95% CI)	%	(95% CI)		
Any tobacco use	4.7	(4.0–5.6)	8.3	(6.9–9.8)		
Vapes	3.5	(2.9–4.2)	6.6	(5.5–7.8)		
Cigarettes	0.8	(0.5–1.1)	1.9	(1.2–2.8)		
LCCs	0.3	(0.1–0.5)	0.6	(0.4–0.9)		
Cigars	0.6	(0.4–0.9)	0.8	(0.5–1.2)		
Hookah	0.5	(0.3–0.7)	0.5	(0.3–0.8)		
Smokeless	0.4	(0.2–0.6)	0.4	(0.3–0.7)		
HTPs	0.5	(0.3–0.7)	0.5	(0.3–0.7)		
Nicotine pouches	0.9	(0.7–1.3)	1.9	(1.3–2.7)		

Table 1-5.	Prevalence of Current Use of Tobacco Products among High School Respondents, by
	Grade

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

1.6 Tobacco Use by LGBTQ+ Status

Respondents were asked to indicate their sexual orientation and gender identity in two separate questions. Using responses from these questions, three categories of LGBTQ+ status were created: LGBTQ+, non-LGBTQ+, and unclear LGBTQ+ status. See Appendix A for additional information on this variable.

Table 1-6 presents tobacco use by LGBTQ+ status. LGBTQ+ respondents reported higher prevalence of any current tobacco use (10.3%) compared to those of unclear LGBTQ+ status (7.2%) and non-LGBTQ+ respondents (5.7%). When examining individual tobacco products, LGBTQ+ respondents had a higher prevalence of use of vapes and cigarettes (8.2% and 3.6%, respectively) than respondents who identified as non-LGBTQ+ (4.4% and 0.8%, respectively) or those with unclear LGBTQ+ status (5.5% and 2.6%, respectively). Use of the remaining individual tobacco products was generally lowest among non-LGBTQ+ respondents. Vapes were the most-used product across all categories.

	LGBTQ+ <i>N</i> = 1,771		Non- N =	LGBTQ+ - 9,950	Unclear LGBTQ+ status N = 750		
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Any tobacco use	10.3	(8.1–12.9)	5.7	(4.9–6.6)	7.2	(5.2–9.5)	
Vapes	8.2	(6.4–10.2)	4.4	(3.7–5.1)	5.5	(3.8–7.7)	
Cigarettes	3.6	(2.2–5.4)	0.8	(0.5–1.2)	2.6	(1.6–4.2)	
LCCs	1.1	(0.6–1.7)	0.3	(0.2–0.5)	1.1	(0.4–2.5)	
Cigars	1.4	(0.6–2.7)	0.5	(0.4–0.7)	1.6	(0.7–3.1)	
Hookah	1.1	(0.5–2.0)	0.4	(0.3–0.5)	1.2	(0.5–2.6)	
Smokeless	0.7	(0.4–1.2)	0.3	(0.2–0.4)	1.3	(0.5–2.8)	
HTPs	1.1	(0.6–1.9)	0.3	(0.2–0.5)	1.1	(0.4–2.4)	
Nicotine pouches	1.3	(0.8–2.0)	1.4	(1.0–1.9)	1.9	(1.0–3.4)	

 Table 1-6.
 Prevalence of Current Tobacco Use among High School Respondents, by LGBTQ+ Status*

Note. LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning. Cl = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

* Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

1.7 Tobacco Use by General Mental Health

Table 1-7 presents respondents' current tobacco use according to reported general mental health (see Appendix A). Respondents who rated their mental health as poor reported the highest use of any tobacco product (11.6%), followed by those who rated their mental health as fair (6.7%) or good to excellent (5.5%). This pattern was consistent for all tobacco products.

1.8 Rurality

To capture tobacco use by rurality, students were divided into three categories based on the locations of their schools. Rural designation was determined by combining National Center for Education Statistics⁷ designations for cities, suburban areas, or towns or rural settings with school address. Further information on this variable is available in Appendix A. Table 1-8 presents prevalence of current any tobacco use and current use of specific tobacco products by rurality. Current use was most prevalent among respondents living in towns or rural settings (9.8%) compared with respondents living in cities (6.1%) or suburban areas (6.0%). The same pattern was present for current use of vapes (7.6% versus 4.4% and 4.8%, respectively), cigarettes (1.9% versus 1.7% and 0.9%, respectively), and nicotine pouches (1.7% versus 1.5% and 1.3%, respectively). Respondents living in cities reported higher use of LCCs (0.6%) and cigars (1.0%) than those living in town or rural settings (0.5% and 0.6%, respectively) or

suburban areas (0.3% and 0.5%, respectively). Use of hookah, smokeless tobacco, and HTPs was similar across rural designations, ranging from 0.4% to 0.7%.

	Good te N =	o excellent 8,321	N =	Fair = 2,545	Poor <i>N</i> = 875		
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Any tobacco use	5.5	(4.7–6.5)	6.7	(5.5–8.0)	11.6	(8.6–15.0)	
Vapes	4.1	(3.5–4.8)	5.6	(4.5–6.9)	9.5	(6.9–12.5)	
Cigarettes	1.1	(0.7–1.5)	1.1	(0.5–2.0)	3.0	(1.6–5.0)	
LCCs	0.4	(0.3–0.6)	0.2	(0.0–0.4)	1.3	(0.6–2.5)	
Cigars	0.7	(0.4–1.0)	0.4	(0.2–0.7)	1.2	(0.6–2.3)	
Hookah	0.5	(0.4–0.8)	0.3	(0.1–0.6)	0.9	(0.4–1.8)	
Smokeless	0.4	(0.2–0.5)	0.1	(0.0–0.4)	1.2	(0.5–2.2)	
HTPs	0.4	(0.3–0.7)	0.3	(0.1–0.6)	1.0	(0.5–1.9)	
Nicotine pouches	1.3	(1.0–1.8)	1.2	(0.7–1.9)	2.1	(1.1–3.5)	

Table 1-7.Prevalence of Current Use of Tobacco Products among High School Respondents, by
General Mental Health

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

Table 1-8.Prevalence of Current Use of Tobacco Products among High School Respondents, by
Rurality of School Location

	N =	City : 4,603	Sul N =	ourban = 6,299	Town or rural <i>N</i> = 1,633		
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Any tobacco use	6.1	(4.7–7.7)	6.0	(5.0–7.1)	9.8	(6.0–14.8)	
Vapes	4.4	(3.4–5.7)	4.8	(4.0–5.7)	7.6	(5.1–11.0)	
Cigarettes	1.7	(0.9–2.8)	0.9	(0.6–1.4)	1.9†	(0.2–7.4)	
LCCs	0.6	(0.4–1.1)	0.3	(0.1–0.5)	0.5	(0.2–1.1)	
Cigars	1.0	(0.6–1.6)	0.5	(0.3–0.8)	0.6	(0.2–1.3)	
Hookah	0.5	(0.3–0.9)	0.5	(0.3–0.8)	0.7	(0.2–2.0)	
Smokeless	0.4	(0.2–0.7)	0.4	(0.2–0.7)	0.4	(0.2–0.7)	
HTPs	0.5	(0.3–0.9)	0.4	(0.3–0.7)	0.6	(0.2–1.2)	
Nicotine pouches	1.5	(0.9–2.4)	1.3	(0.8–1.9)	1.7	(0.8–3.2)	

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

+ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

1.9 Polytobacco Use

Table 1-9 presents the current use of more than one tobacco product, often referred to as polytobacco use. Some estimates are imprecise due to small sample sizes. Overall, 31.0% of high school respondents currently using tobacco reported using two or more tobacco products.

		Used tobacc	only one co product	Used two or more tobacco products		
Characteristic	N	%	(95% CI)	%	(95% CI)	
Overall	785	69.0	(64.4–73.5)	31.0	(26.5–35.6)	
Gender						
Male	366	67.4	(60.5–73.8)	32.6	(26.2–39.5)	
Female	353	77.2	(71.7–82.1)	22.8	(17.9–28.3)	
Identified in another way	66	38.4+	(21.6–57.6)	61.6†	(42.4–78.4)	
Race/ethnicity*						
White	228	61.4	(54.2–68.3)	38.6	(31.7–45.8)	
African American or Black	35	_	—	—	_	
Hispanic	376	75.2	(70.0–79.9)	24.8	(20.1–30.0)	
Asian	42	72.1	(56.1–84.8)	27.9	(15.2–43.9)	
Other	29	_	_	—	_	
Multiracial	73	71.5	(56.4–83.7)	28.5	(16.3–43.6)	
Grade						
10	314	73.5	(66.5–79.7)	26.5	(20.3–33.5)	
12	471	66.3	(60.4–71.8)	33.7	(28.2–39.6)	
LGBTQ+ status**						
LGBTQ+	190	60.0	(50.1–69.3)	40.0	(30.7–49.9)	
Non-LGBTQ+	540	72.7	(68.1–76.9)	27.3	(23.1–31.9)	
Unclear LGBTQ+ status	55	62.2†	(45.9–76.8)	37.8†	(23.2–54.1)	
Mental health status						
Good to excellent	433	69.6	(64.4–74.4)	30.4	(25.6–35.6)	
Fair	171	74.5	(64.8–82.6)	25.5	(17.4–35.2)	
Poor	114	64.9	(52.6–75.8)	35.1	(24.2–47.4)	
Rurality						
City	260	60.6	(51.1–69.6)	39.4	(30.4–48.9)	
Suburban	358	72.9	(68.3–77.1)	27.1	(22.9–31.7)	
Town or rural	167	74.3	(58.5–86.5)	25.7	(13.5–41.5)	

Table 1-9.Prevalence of Current Polytobacco Use among High School Respondents Currently Using
Tobacco, by Demographic Characteristics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

- * With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the "other race" category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.
- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- ⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Differences in polytobacco use by demographics were observed. Respondents who identified their gender in another way had a higher prevalence of polytobacco use (61.6%) compared to those who identified as male (32.6%) or female (22.8%). Due to small sample sizes, comparisons cannot be made across racial categories. Twelfth-grade respondents reported higher polytobacco use (33.7%) than 10th-grade respondents (26.5%). Polytobacco use was higher among LGBTQ+ respondents (40.0%) than respondents with unclear LGBTQ+ status (37.8%) and non-LGBTQ+ respondents (27.3%). When examining polytobacco use by reported mental health status, respondents rating their mental health as poor had the highest polytobacco use (35.1%) followed by those with good to excellent (30.4%) and fair (25.5%) mental health. Respondents attending schools located in cities had the highest prevalence of polytobacco use (39.4%) compared to those attending schools in suburban areas (27.1%) or town or rural settings (25.7%).

1.10 Tobacco Use by Experiences of Discrimination

The CYTS captures experiences of discrimination based on literature establishing a relationship between discrimination and tobacco use.^{5,6 8,9} Specifically, since 2022, the CYTS has included a modified version of the Everyday Discrimination Scale.⁹ The scale was modified from the original wording to specify a time period for the experiences—the past 30 days (based on confusion around the term "day-to-day" among youth during cognitive testing), and response options were updated to accommodate this change. Otherwise, the scale is identical to its original version. Additional information on the discrimination variable is available in Appendix A.

Table 1-10 presents the list of experiences of discrimination and how frequently high school students reported experiencing them. Overall, 63.6% of high school students reported one or more experiences of discrimination a few times or more in the past month (data not shown).

Experience of discrimination	N	Alm %	nost every day (95% CI)	At least once a week % (95% CI)		At least once a week A few times % (95% CI) % (95% CI)		few times Not at all 6 (95% Cl) % (95% Cl	
You were treated with less courtesy or respect than other people	11,530	6.3	(5.7–7.0)	11.9	(11.0–12.8)	31.8	(30.6–33.0)	50.0	(48.1–51.9)
You received poorer service than other people at restaurants or stores	11,517	3.0	(2.6–3.6)	4.7	(4.3–5.2)	14.7	(13.9–15.5)	77.5	(76.3–78.8)
People acted as if they think you are not smart	11,505	7.2	(6.5–7.9)	11.4	(10.6–12.4)	29.9	(29.0–30.8)	51.5	(49.8–53.1)
People acted as if they are afraid of you	11,499	4.3	(3.8–4.9)	6.2	(5.6–6.8)	15.8	(14.9–16.8)	73.7	(72.3–75.0)
You were threatened or harassed	11,512	4.0	(3.5–4.5)	4.4	(3.9–4.9)	12.9	(11.9–13.9)	78.8	(77.4–80.1)

Table 1-10.	Prevalence of Experiences of Discrimination in the Last Month among High School
	Respondents

Note. CI = Confidence interval

The most-endorsed experience of discrimination occurring on a daily basis was "people acted as if they think you are not smart"; 7.2% of respondents reported having this experience almost every day. The second most–reported experience of discrimination (on an almost daily basis) was "you were treated with less courtesy or respect than other people"; 6.3% of respondents reported having this experience almost every day.

We examined experiences of discrimination by current tobacco use status (Table 1-11). Respondents who were using tobacco endorsed all experiences of discrimination at higher rates than those who were not using tobacco. For example, 13.3% of respondents who were currently using tobacco reported that people acted as if they think the respondent is not smart almost every day, whereas only 6.8% of respondents not currently using tobacco reported that this experience occurred almost every day.

Experience of		Almost every day a week			A f	ew times	ſ	Not at all	
discrimination	N	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Currently using									
tobacco*									
You were treated	704	12.3	(9.6–15.6)	19.7	(16.3–23.3)	32.7	(28.4–37.1)	35.3	(31.3–39.5)
with less courtesy or									
respect than other									
people									
You received poorer	702	7.6	(5.3–10.4)	9.2	(6.9–12.1)	19.3	(15.8–23.2)	63.9	(58.9–68.7)
service than other									
people at									
restaurants or stores				. – –	(
People acted as if	702	13.3	(10.4–16.6)	17.5	(13.9–21.4)	34.9	(31.5–38.4)	34.4	(30.0–38.9)
they think you are									
not smart	702	10.2		14.6	(11 2 10 5)	20.0	(17 2 24 7)	F4 2	
People acted as if	703	10.3	(7.7–13.4)	14.6	(11.3–18.5)	20.8	(17.3–24.7)	54.2	(48.4–59.9)
they are arraid of									
you You were threatened	702	10 1	(7 1-12 2)	7 2	(5 5_0 2)	21.8	(18 2_25 0)	60.9	(55 7_65 0)
or barassed	702	10.1	(7.4–13.3)	1.2	(3.3-9.2)	21.0	(10.2–23.5)	00.9	(55.7-05.9)
Not currently using									
tobacco**									
You were treated	10.784	5.9	(5.4–6.5)	11.4	(10.6–12.3)	31.7	(30.5–32.9)	51.0	(49.1–52.8)
with less courtesy or			(011 010)		(,		(,		(
respect than other									
people									
You received poorer	10,773	2.7	(2.3–3.2)	4.4	(3.9–5.0)	14.3	(13.5–15.2)	78.5	(77.2–79.7)
service than other									
people at									
restaurants or stores									
People acted as if	10,761	6.8	(6.1–7.5)	11.0	(10.2–11.9)	29.5	(28.6–30.4)	52.7	(51.1–54.3)
they think you are									
not smart									
People acted as if	10,756	3.9	(3.4–4.5)	5.6	(5.1–6.2)	15.5	(14.6–16.4)	75.0	(73.6–76.4)
they are afraid of									
you	40				(0, 7, -, -)				
You were threatened	10,769	3.6	(3.1–4.1)	4.2	(3.7–4.7)	12.2	(11.3–13.3)	80.0	(78.7–81.3)
or harassed									

Table 1-11.Prevalence of Experiences of Discrimination in the Last Month among High School
Respondents, by Current Tobacco Use

Note. CI = Confidence interval

* n = 708 for respondents currently using tobacco in this table.

** n = 10,797 for respondents not currently using tobacco in this table.

Table 1-12 displays participant responses to the second item in the discrimination scale, which asks respondents why they believed they had experienced discrimination. The most-reported reason for experiencing discrimination was "some other aspect of physical appearance" (32.9%), followed closely by age (31.1%). Reasons for experiencing discrimination were similar across current tobacco use.

Reason for discrimination	C N	Dverall = 7,290	Curro t /	ently using obacco V = 551	Not currently using tobacco <i>N</i> = 6,712		
(select all that apply)	%	(95% CI)	%	(95% CI)	% (95% CI)		
Age	31.1	(30.0–32.2)	31.4	(27.0–36.1)	31.1	(29.9–32.2)	
Race/ethnicity	27.5	(25.6–29.4)	23.6	(19.0–28.7)	27.8	(25.9–29.8)	
Gender identity	25.5	(23.2–27.8)	28.1	(22.6–34.2)	25.2	(22.9–27.6)	
Some other aspect of physical appearance	32.9	(31.1–34.8)	28.6	(23.5–34.3)	33.3	(31.4–35.2)	
Weight	20.6	(18.7–22.5)	20.7	(16.8–25.0)	20.6	(18.7–22.5)	
Height	20.9	(19.8–22.0)	19.1	(15.2–23.4)	21.1	(20.0–22.1)	
Ancestry or national origins	10.5	(9.5–11.5)	9.8	(7.4–12.7)	10.5	(9.6–11.6)	
Household or family education or income	17.8	(16.6–19.0)	15.7	(12.0–20.0)	18.0	(16.8–19.2)	
Sexual orientation	8.9	(8.0–9.8)	12.3	(8.9–16.3)	8.6	(7.8–9.5)	
Religion	8.5	(7.7–9.3)	8.1	(5.9–10.9)	8.5	(7.7–9.3)	
Other	19.2	(18.1–20.4)	15.9	(12.7–19.7)	19.5	(18.2–20.8)	

Table 1-12.	Perceived Reasons for Experiencing Discrimination in the Last Month among High Sch				
	Respondents, by Current Tobacco Use Status				

Note. CI = Confidence interval

1.11 Vaping Cessation

The 2024 CYTS examined quit attempts among respondents who were currently vaping and their intentions to quit vaping in the future. Appendix A provides additional information about these variables.

Table 1-13 presents reported past-year quit attempts and intention to quit vaping in the next 30 days. Among respondents who currently vaped, 40.6% reported that they had attempted to quit vaping in the last 12 months, and 41.8% reported intending to quit in the next 30 days. Respondents who identified their gender in another way had the lowest prevalence of quit attempts (34.5%) and intention to quit (9.5%), compared to those who identified their gender as male (38.9% and 45.7%, respectively) or female (43.0% and 43.6%, respectively). Both 10th-and 12th-grade respondents had about a 40% prevalence of quit attempts (40.9% and 40.4%, respectively), but a higher prevalence of 12th graders reported intending to quit (43.2% versus 39.4% of 10th graders). Respondents rating their mental health status as poor had the lowest

prevalence of quit attempts (33.4%) and intention to quit (33.0%) across all categories of selfreported mental health. Due to small sample sizes, comparisons cannot be made by race/ethnicity or LGBTQ+ status. African American/Black, Asian, and other race respondents are not included in the table because all estimates were suppressed.

	Attempted to quit			Intending to quit			
Characteristic	N	%	(95% CI)	N	%	(95% CI)	
Overall	631	40.6	(36.4–44.8)	631	41.8	(36.2–47.5)	
Gender							
Male	267	38.9	(32.8–45.3)	267	45.7	(38.1–53.5)	
Female	314	43.0	(37.3–48.9)	314	43.6	(35.7–51.7)	
Identified in another way	50	34.5†	(19.2–52.4)	50	9.5†	(3.0–21.3)	
Race/ethnicity*							
White	171	39.0	(31.3–47.1)	171	34.6	(25.4–44.8)	
Hispanic	318	42.5	(36.9–48.3)	318	47.4	(39.9–54.9)	
Multiracial	54	40.6+	(25.5–57.2)	54	36.2	(22.7–51.5)	
Grade							
10	240	40.9	(33.2–48.9)	240	39.4	(33.4–45.6)	
12	391	40.4	(34.6–46.4)	391	43.2	(35.9–50.7)	
LGBTQ+ status**							
LGBTQ+	161	37.2	(28.7–46.3)	161	32.1	(23.2–42.0)	
Non-LGBTQ+	427	43.5	(38.6–48.5)	427	46.9	(40.8–53.0)	
Unclear LGBTQ+ status	43	_	—	43	_	_	
Mental health status							
Good to excellent	333	43.0	(37.6–48.5)	333	45.0	(37.1–53.0)	
Fair	148	43.5	(34.1–53.1)	148	41.8	(31.9–52.2)	
Poor	95	33.4	(22.8–45.5)	95	33.0	(23.1–44.2)	
Rurality							
City	204	38.1	(29.5–47.2)	204	41.3	(31.4–51.8)	
Suburban	294	42.2	(36.6–48.0)	294	43.1	(35.4–50.9)	
Town or rural	133	40.1	(31.1–49.7)	133	38.8†	(21.9–57.9)	

Table 1-13.Percentage of Respondents Who Reported Attempting to Quit Vaping in the Last 12
Months or Intending to Quit Vaping in the Next 30 Days, among High School
Respondents Who Currently Vaped, by Demographic Characteristics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic.

- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- + The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

1.12 Summary

Current use of any tobacco product was 6.4%. Of individual tobacco products, use of vapes was highest (5.0%), followed by nicotine pouches (1.4%). Current use of cigarettes was 1.3%. When examining frequency of tobacco use, respondents who were currently vaping reported frequent use, with almost half of these respondents reporting that they had used vapes 20 or more days in the last month. For cigarettes, infrequent use was common, with more than a third of respondents who were currently smoking cigarettes endorsing smoking 1 or 2 days per month. Respondents who identified their gender in another way had a higher prevalence of current use of any tobacco product than those who identified as female or male. White respondents reported the highest current tobacco use, while Asian respondents reported the lowest current tobacco use. Tobacco use was higher among 12th graders than 10th graders. LGBTQ+ respondents reported higher prevalence of any current tobacco use compared to those of unclear LGBTQ+ status and non-LGBTQ+ respondents. Respondents who rated their mental health as poor had higher use of any tobacco product compared to those who rated their mental health fair or good to excellent. Current tobacco use was more prevalent among respondents attending schools in towns or rural settings than those attending schools located in cities or suburban areas. About one-third of respondents who were currently using tobacco reported using more than one tobacco product, but polytobacco use varied by demographics. Two-thirds of high school students reported one or more experiences of discrimination in the past month; experiences of discrimination were more common among respondents who were currently using tobacco. Quit attempts and intention to quit (among respondents who were currently vaping) varied by demographic.

2. Use of Flavored Tobacco Products

This chapter presents information about the use of flavored tobacco products among respondents currently using tobacco. It also presents the use of specific flavors. See Chapter 10 for flavored tobacco use among 8th-grade respondents.

Of note, in December 2022, California implemented Senate Bill (SB) 793, a statewide ban on the sale of flavored tobacco products. Data collection for the 2024 CYTS occurred over one year after implementation of the ban.

2.1 Flavored Tobacco Use

The 2024 CYTS asked respondents who were currently using tobacco which flavors they used most often for each tobacco product. Since menthol cigarettes are the only type of flavored cigarette available for sale, the CYTS asked respondents who reported smoking cigarettes whether they used menthol cigarettes. In this chapter, all mentions of flavored cigarette use refer to menthol cigarette use. For other products, the CYTS asked respondents to select their most-used flavor from a list of flavors. Based on these responses, we divided respondents based on their use of flavored or unflavored products. This report defines flavored tobacco use as smoking menthol cigarettes in the last 30 days or, for all other tobacco products, selecting any flavor other than "tobacco" or "unflavored" as the most-used flavor (see Appendix A). Unflavored use is defined as only smoking non-menthol cigarettes in the last 30 days or, for all other products, selecting "tobacco" or "unflavored" as the most-used flavor.

Table 2-1 indicates that, for the products included in the table, most respondents who were using tobacco also reported using a flavored tobacco product (84.5%), with the use of flavored vapes (89.5%) being the most prevalent. A third of respondents who were smoking cigarettes (34.5%) reported using menthol cigarettes in the past 30 days. HTPs were dropped from the table because all values were suppressed.

2.2 Flavored Tobacco Use by Demographic Characteristics

Table 2-2 presents the current use of flavored tobacco among respondents who reported currently using tobacco, by demographics. Overall, most respondents who used these products reported using a flavored tobacco product (84.5%). Use of flavored tobacco was highest among high school respondents who identified their gender as female (88.6%) and lowest among males (80.8%). Use of flavored tobacco was higher among 10th-grade respondents (86.5%) than 12th-grade respondents (83.3%). LGBTQ+ respondents had the highest prevalence (85.6%) and those with unclear LGBTQ+ status had the lowest prevalence (76.7%). When looking at use by mental health status, respondents with poor (83.6%) and good to excellent (83.5%) mental health reported about the same use of flavored tobacco, while those reporting fair mental health reported higher use (86.8%). Finally, there were differences by rurality, with the highest

use reported by respondents in town or rural settings (87.1%). Due to small sample sizes, comparisons cannot be made across race/ethnicity.

		Flavored product use	2	
Tobacco product	N	%	(95% CI)	
Any product*	738	84.5	(80.5–88.0)	
Vapes	626	89.5	(86.5–92.0)	
Cigarettes**	146 34.5 (2		(25.4–44.4)	
LCCs	53	53 43.9 (30.0–58.6		
Cigars	72	41.0+	(26.3–57.1)	
Hookah	69	75.6	(60.2-87.4)	

Table 2-1.Prevalence of Current Flavored Tobacco Product Use among High School Respondents
Reporting Current Use of Tobacco Products

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos

* Includes use of vapes, cigarettes, LCCs, cigars, hookah, smokeless tobacco, and/or HTPs. HTPs were removed from the table due to small sample size.

73.9

(58.2 - 86.2)

48

** Menthol was the only available flavor for cigarettes.

Smokeless

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Characteristic	N	%	(95% CI)	
Overall	738	84.5	(80.5–88.0)	
Gender				
Male	330	80.8	(74.2–86.4)	
Female	343	88.6	(84.1–92.2)	
Identified in another way	65	82.2	(66.2–92.7)	
lace/ethnicity*				
White	206	80.1	(71.3–87.1)	
African American or Black	34	_	—	
Hispanic	363	85.9	(81.9–89.2)	
Asian	37	94.4	(79.5–99.5)	
Other	28	—	—	
Multiracial	68	85.9	(68.5–95.8)	

Table 2-2.Prevalence of Current Use of Any Flavored Tobacco among High School RespondentsWho Reported Currently Using These Products, by Demographic Characteristics

(continued)

		Current use	
Characteristic	N	%	(95% CI)
Grade			
10	286	86.5	(81.6–90.5)
12	452	83.3	(77.4–88.1)
LGBTQ+ status**			
LGBTQ+	186	85.6	(76.9–92.0)
Non-LGBTQ+	500	84.9	(80.4–88.7)
Unclear LGBTQ+ status	52	76.7	(63.5–86.9)
Mental health status			
Good to excellent	400	83.5	(77.9–88.2)
Fair	163	86.8	(79.0–92.5)
Poor	112	83.6	(75.1–90.1)
Rurality			
City	248	83.4	(74.8–90.1)
Suburban	339	84.3	(78.8–88.9)
Town or rural	151	87.1	(72.0–95.8)

Table 2-2.	Prevalence of Current Use of Any Flavored Tobacco among High School Respondents
	Who Reported Currently Using These Products, by Demographic Characteristics
	(continued)

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

2.3 Use of Specific Flavored Tobacco Products by Demographic Characteristics

The following section (Tables 2-3, 2-4, and 2-5) presents the current use of flavored tobacco products among respondents who were currently using tobacco by demographics, including gender identity, race/ethnicity, and grade.

Table 2-3 indicates the percentage of respondents currently using vapes who were using flavored vapes, by demographic characteristics. We are unable to make comparisons across all three gender identities for flavored vaping due to small sample sizes. Because of small sample

sizes, we could not compare flavored vaping by race/ethnicity. Respondents in 12th grade (90.4%) reported higher use of flavored vapes than respondents in 10th grade (87.9%). LGBTQ+ respondents reported the highest use of flavored vapes (91.0%) and respondents of unclear LGBTQ+ status reported the lowest use (81.8%). The highest use of flavored vapes was reported by respondents who rated their mental health as poor (91.3%). Respondents in towns or rural settings had the highest use of flavored vapes (92.8%) out of all categories of rurality.

		Current use	
Characteristic	N	%	(95% CI)
Overall	738	84.5	(80.5–88.0)
Gender			
Male	330	80.8	(74.2–86.4)
Female	343	88.6	(84.1–92.2)
Identified in another way	65	82.2	(66.2–92.7)
Race/ethnicity*			
White	206	80.1	(71.3–87.1)
African American or Black	34	—	—
Hispanic	363	85.9	(81.9–89.2)
Asian	37	94.4	(79.5–99.5)
Other	28	—	—
Multiracial	68	85.9	(68.5–95.8)
Grade			
10	286	86.5	(81.6–90.5)
12	452	83.3	(77.4–88.1)
LGBTQ+ status**			
LGBTQ+	186	85.6	(76.9–92.0)
Non-LGBTQ+	500	84.9	(80.4–88.7)
Unclear LGBTQ+ status	52	76.7	(63.5–86.9)
Mental health status			
Good to excellent	400	83.5	(77.9–88.2)
Fair	163	86.8	(79.0–92.5)
Poor	112	83.6	(75.1–90.1)
Rurality			
City	248	83.4	(74.8–90.1)
Suburban	339	84.3	(78.8–88.9)
Town or rural	151	87.1	(72.0–95.8)

Table 2-3.Prevalence of Current Use of Flavored Vapes among High School Respondents Who
Reported Currently Vaping, by Demographic Characteristics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

- * With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.
- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

2.4 Use of Specific Flavor Types

The 2024 CYTS asked respondents who reported using tobacco products to indicate the flavor they used most often for each product. As shown in Tables 2-4a and 2-4b, flavor popularity varied by product. Fruit was the most popular flavor among respondents who were currently vaping (43.8%) or using hookah (25.9%). Tobacco was the most popular flavor among respondents who were smoking cigars (36.3%) or LCCs (36.6%). Mint was the most-endorsed flavor for smokeless tobacco (19.8%). About one-third (34.5%) of respondents who currently smoked cigarettes reported smoking menthol cigarettes.

	I	Vapes V = 626	Ci	garettes* N = 146	LCCs <i>N =</i> 53		Cigars <i>N</i> = 72	
Flavor	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Unflavored	8.1	(6.0–10.7)	65.5	(55.6–74.6)	19.5	(10.0–32.5)	22.7	(12.3–36.2)
Tobacco flavored	2.4	(1.2–4.3)	N/A	N/A	36.6	(23.1–51.8)	36.3	(25.4–48.3)
Menthol	1.5	(0.6–3.3)	34.5	(25.4–44.4)	4.0†	(0.6–12.3)	2.7†	(0.2–11.2)
Mint	14.7	(10.9–19.1)	N/A	N/A	4.0†	(0.6–13.1)	5.6†	(0.7–18.8)
Cooling, ice, or frosty	9.4	(7.1–12.0)	N/A	N/A	1.8†	(0.1–9.1)	2.0†	(0.1–9.0)
Clove or spice	0.1	(0.0–0.5)	N/A	N/A	4.9†	(0.7–16.0)	1.0†	(0.0–5.4)
Fruit	43.8	(39.4–48.4)	N/A	N/A	8.2†	(2.4–19.3)	4.4†	(1.1–11.3)
Alcoholic drink**	0.7	(0.2–1.8)	N/A	N/A	5.1†	(0.7–16.8)	—	—
Non-alcoholic drink***	0.7	(0.2–1.7)	N/A	N/A	0.0	(0.0–6.9)	2.0†	(0.0–10.8)
Candy, chocolate, desserts, or other sweets	9.7	(7.5–12.3)	N/A	N/A	9.1†	(1.9–24.7)	2.0†	(0.2–7.3)
Some other flavor	8.9	(6.2–12.3)	N/A	N/A	6.9†	(2.4–14.9)	7.5†	(2.9–15.3)

Table 2-4a.	Prevalence of Endorsing Specific Flavors among High School Respondents Who Reported
	Currently Using Each Tobacco Product

Note. LCCs = Little cigars or cigarillos; CI = Confidence interval; N/A = Not applicable

* Menthol was the only available flavor for cigarettes. All other flavors are labeled N/A (not applicable).

** Such as wine, cognac, margarita, or other cocktails.
*** Such as coffee, soda, energy drinks, or other beverages.

- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- + The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

	Hookah	Smokeless
	<i>N</i> = 69	N = 48
Flavors	% (95% CI)	% (95% CI)
Unflavored	12.3† (4.6–24.9)	14.9† (5.4–30.3)
Tobacco flavored	12.1† (4.8–24.1)	11.2† (3.5–24.7)
Menthol	8.3+ (2.8–17.9)	4.2+ (0.7–12.9)
Mint	5.2+ (0.6–18.1)	19.8† (7.7–38.1)
Cooling, ice, or frosty	6.4† (1.6–16.4)	14.4† (5.6–28.3)
Clove or spice	2.5+ (0.1–13.7)	6.9+ (1.1–21.1)
Fruit	25.9 (15.3–39.1)	4.5† (0.3–18.6)
Alcoholic drink*	5.3† (1.5–13.0)	4.3† (0.5–14.8)
Non-alcoholic drink**	0.2 (0.0–1.4)	0.9+ (0.0–5.2)
Candy, chocolate, desserts, or other sweets	9.2† (1.7–25.5)	10.9+ (3.7–23.4)
Some other flavor	12.6† (5.5–23.5)	8.2+ (2.7–18.0)

Table 2-4b.Prevalence of Endorsing Specific Flavors among High School Respondents WhoReported Currently Using Each Tobacco Product

Note. CI = Confidence interval

* Such as wine, cognac, margarita, or other cocktails.

** Such as coffee, soda, energy drinks, or other beverages.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

2.5 Perceived Accessibility of Flavored Tobacco Products

In addition to asking respondents who were currently using tobacco products which flavors they were using, we asked all respondents, regardless of use status, how easy they thought it was to access flavored tobacco products from a store, the internet (including apps), or another person. The survey did not provide a definition for flavored tobacco products. Respondents who responded "somewhat easy" or "very easy" to each question were coded as perceiving that it was easy to access flavored tobacco products. Respondents who responded "somewhat difficult" or "very difficult" were coded as not perceiving that it was easy to access flavored tobacco products. Perceived access for vapes and cigarettes (without mention of the products being flavored or unflavored) is presented in Chapter 3. Table 2-5 presents the percentage of high school respondents who perceived that it was easy to obtain flavored tobacco products from a store, the internet, or another person. About a third of respondents thought it was easy to access flavored tobacco products from a store (38.6%), while many more thought it was easy to access flavored products from the internet (59.5%) or from another person (61.1%).

Table 2-5.	Prevalence of Perceiving That It Was Easy to Access Flavored Tobacco Products among
	High School Respondents

	From a store		Fro	m the internet	From someone else	
Characteristic	Ν	% (95% CI)	Ν	% (95% CI)	Ν	% (95% CI)
Overall	11,915	38.6 (37.1–40.1)	11,858	59.5 (58.1–60.9)	11,874	61.1 (59.1–63.0)

Note. CI = Confidence interval

2.6 Summary

Most respondents (overall and across demographic categories) who were using tobacco also reported using a flavored tobacco product. The product with the highest proportion of flavored use was vapes. Fruit was the most popular vape flavor used by respondents who currently vaped. Respondents reported that they believed it was easier to access flavored tobacco products from the internet or another person rather than from a store.

Findings for flavored tobacco should be interpreted with caution. The CYTS asks respondents to identify their most-used flavor, as opposed to asking them for all flavors that they had used in the past 30 days. As a result, respondents whose use was categorized as unflavored may have also used flavored products in the past 30 days. Similarly, respondents whose use was categorized as flavored may have also used unflavored products in the past 30 days.

3. Access to Vapes and Cigarettes

Age restrictions are intended to make it difficult for youth to access tobacco products. The minimum legal age to purchase tobacco products, including vapes, in California is 21 years of age. As a result, it is important to monitor how underage youth acquire tobacco products, particularly through retail sources. This chapter presents data on how respondents using vapes and cigarettes acquired these products. We then asked respondents who reported buying their own vapes (including pods or e-liquid) or cigarettes where they usually bought these products.

3.1 Acquisition of Vapes

Table 3-1 presents methods of vape acquisition among respondents who reported currently vaping. The most common method of obtaining vapes was buying their own (39.6%). Other common methods were someone giving them to the respondent (16.3%) or asking someone to buy them (15.6%). The least common method was taking them from someone (8.2%).

Method	Overall <i>N</i> = 618 % (95% CI)	10th grade N = 234 % (95% Cl)	12th grade N = 384 % (95% CI)
I ask someone to buy them for me	15.6 (12.7–18.8)	18.7 (13.8–24.4)	13.7 (10.3–17.8)
Someone gives them to me	16.3 (12.9–20.2)	12.8 (8.6–18.2)	18.3 (13.6–23.9)
I ask someone for them	10.4 (8.0–13.2)	10.7 (7.3–15.0)	10.2 (6.9–14.3)
I take them from someone	8.2 (5.8–11.2)	9.7 (6.1–14.5)	7.3 (4.0–12.1)
I get them some other way	10.0 (7.5–12.9)	13.0 (8.7–18.6)	8.2 (5.3–12.1)
I buy them myself*	39.6 (34.9–44.4)	35.0 (28.4–42.1)	42.2 (37.0–47.5)
From a gas station or convenience store	7.6 (4.5–11.9)	6.7† (2.0–15.6)	8.0 (4.3–13.4)
From a grocery store	0.6 (0.0–3.3)	1.9† (0.0–10.3)	0.0 (0.0–2.4)
From a drugstore or pharmacy	2.1† (0.5–5.6)	3.4† (0.3–12.5)	1.6† (0.2–5.7)
From a liquor store	3.7† (1.1–9.1)		2.6† (0.7–6.6)
From a tobacco or smoke shop	25.1 (17.2–34.4)	13.9† (6.0–26.0)	30.4 (20.7–41.5)
From a vape shop	20.1 (14.3–27.1)	13.4† (5.8–25.1)	23.3 (15.8–32.2)
From a mall or shopping center kiosk/ stand	0.7 (0.1–2.9)	0.8 (0.0–4.3)	0.7 (0.0-4.1)
On the internet (including apps)	3.8† (1.5–7.9)	0.9† (0.0–5.0)	5.2† (1.9–11.1)
From someone	25.5 (17.4–35.0)	36.8 (23.4–51.9)	20.2 (12.0–30.7)
Some other way	10.7 (6.2–16.8)	16.4† (7.5–29.5)	8.0† (3.4–15.4)

Table 3-1.	Methods of Accessing Vapes among High School Respondents Who Were Currently
	Vaping, by Grade

Note. CI = Confidence interval. A value of 0.0 indicates that no respondents selected that item. N/A is used in the table to indicate that there is no confidence interval because the value of the estimate is 0.0. For definitions of nominal and effective sample size, see Appendix A.

- * Numbers below this row represent the percentage of respondents endorsing each location among those who reported buying their own vapes.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- ⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Among respondents who reported purchasing their own vapes, the most common sources were buying from someone (25.5%), from a tobacco or smoke shop (25.1%), or from a vape shop (20.1%). Tenth-grade respondents most frequently bought vapes from someone else (36.8%), whereas 12th-grade respondents most frequently bought from a tobacco or smoke shop (30.4%).

3.2 Acquisition of Cigarettes

Table 3-2 shows how respondents who were currently smoking cigarettes acquired them. The most common method of obtaining cigarettes was buying them (35.8%), followed by being given them (26.2%). Among those who reported buying their own cigarettes, the most common method of purchase was from a gas station or convenience store (45.3%; this estimate should be interpreted with caution). Sample sizes were not sufficient to compare methods of obtaining cigarettes by grade.

Mathed	Overall N = 147
Method	% (95% CI)
I ask someone to buy them for me	7.9† (3.6–14.5)
Someone gives them to me	26.2 (18.4–35.3)
I ask someone for them	10.4 (6.6–15.5)
I take them from someone	13.2 (7.4–21.3)
I get them some other way	6.5† (2.6–13.1)
I buy them myself*	35.8 (26.0–46.6)
From a gas station or convenience store	45.3† (28.8–62.5)
From a grocery store	1.1† (0.0–6.9)
From a drugstore or pharmacy	1.9† (0.0–10.3)
From a liquor store	3.7† (0.3–13.9)
From a tobacco or smoke shop	
From a vape shop	0 N/A

Table 3-2.Methods of Accessing Cigarettes among High School Respondents Who Were Currently
Smoking Cigarettes, by Grade

(continued)

	Overall N = 147
Method	% (95% CI)
From a mall or shopping center kiosk/stand	0 N/A
On the internet (including apps)	4.5† (0.5–16.0)
From someone	10.9† (3.4–24.4)
Some other way	10.7† (2.9–25.3)

Table 3-2.Methods of Accessing Cigarettes among High School Respondents Who Were Currently
Smoking Cigarettes, by Grade (continued)

Note. CI = Confidence interval. A value of 0.0 indicates that no respondents selected that item. N/A is used in the table to indicate that there is no confidence interval because the value of the estimate is 0.0.

* Numbers below this row represent the percentage of respondents endorsing each location among those who reported buying their own cigarettes.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

3.3 Perceived Accessibility of Vapes

In addition to asking questions of respondents who were currently using vapes about how they obtained their products, we asked all respondents, regardless of use status, how easy they thought it was to access these products from a store, the internet (including apps), or another person. Respondents who responded "somewhat easy" or "very easy" to these questions were coded as perceiving that it was easy to access these products. Respondents who responded "somewhat difficult" or "very difficult" were coded as not perceiving that it was easy to access these products. Overall, about half or more of respondents reported that they thought it was easy to get vapes from a store, the internet, or someone else.

Table 3-3 presents the percentage of high school respondents who perceived that it was easy to get vapes from a store, the internet, or someone else. About two-thirds of respondents thought it was easy to access vapes from someone else (68.2%); a similar percentage of respondents thought it was easy to get them from the internet (65.7%). About half of respondents thought it was easy to access vapes from a store (49.7%). Patterns of perceived access by current vaping status varied by method of acquiring vapes. However, all participants—regardless of vaping status—thought that of the three options, it was easiest to obtain vapes from someone else.

	From a store		Fro	m the internet	From someone else	
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	11,924	49.7 (48.0–51.3)	11,858	65.7 (64.2–67.2)	11,889	68.2 (66.4–70.1)
Vaping status						
Never vaping	10,009	48.7 (47.2–50.2)	9,970	65.3 (63.7–66.9)	9,991	66.1 (64.3–67.9)
Former vaping	1,313	53.9 (50.3–57.5)	1,296	69.0 (66.3–71.6)	1,301	79.0 (75.6–82.2)
Current vaping	592	56.5 (50.7–62.2)	583	64.9 (59.6–70.0)	589	81.0 (77.0–84.6)

Table 3-3.Prevalence of Perceiving That It Was Easy to Access Vapes among High School
Respondents, by Vaping Status

Note. CI = Confidence interval

Table 3-4 includes findings for perceived access to vapes from a store by vaping status and demographics. Overall, respondents who currently vaped had the highest perceived access to vapes from a store (56.5%), followed by respondents who formerly vaped (53.9%) and never vaped (48.7%). This pattern generally held true across demographic variables (gender identity, race/ethnicity, grade, LGBTQ+ status, mental health status, rurality), where estimates were available, with two exceptions. Among respondents who identified as male (56.6%) and multiracial respondents (58.3%), those who had formerly vaped had the highest perceived access across all use statuses. However, the estimates for multiracial respondents should be interpreted with caution, given small sample sizes.

	Never vaping Former vaping		Former vaping	Current vaping		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	10,009	48.7 (47.2–50.2)	1,313	53.9 (50.3–57.5)	592	56.5 (50.7–62.2)
Gender identity						
Male	5,145	49.9 (48.4–51.5)	575	56.6 (50.9–62.2)	250	54.1 (46.3–61.8)
Female	4,507	47.5 (45.0–50.0)	680	51.4 (46.4–56.4)	297	58.5 (50.3–66.4)
Identified in another way	344	46.5 (41.3–51.8)	58	56.8 (44.6–68.4)	45	57.2† (38.6–74.4)
Race/ethnicity*						
White	1,686	50.3 (47.0–53.6)	226	52.6 (45.9–59.2)	163	55.3 (45.0–65.3)
African American or Black	485	52.0 (45.0–58.9)	57	59.1† (40.6–75.8)	25	
Hispanic	5,699	46.9 (45.0–48.8)	826	54.2 (49.8–58.6)	298	55.8 (47.4–64.0)
Asian	1,218	51.7 (48.2–55.2)	81	48.2 (35.3–61.2)	30	
Other	265	50.7 (41.6–59.7)	31		22	
Multiracial	633	48.7 (43.1–54.2)	90	58.3† (42.7–72.7)	52	54.4† (36.7–71.3)

Table 3-4.Prevalence of Perceiving That It Was Easy to Access Vapes from a Store among High
School Respondents, by Vaping Status and Demographics

(continued)

	Never vaping			Former vaping	Current vaping		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	
Grade							
10	5,482	47.0 (45.4–48.7)	609	52.6 (47.5–57.7)	221	55.1 (45.3–64.6)	
12	4,527	50.7 (48.3–53.0)	704	55.0 (50.5–59.4)	371	57.3 (49.4–65.0)	
LGBTQ+ status**							
LGBTQ+	1,279	46.9 (44.1–49.8)	270	49.1 (41.6–-56.6)	150	51.9 (42.3–61.4)	
Non-LGBTQ+	8,080	49.4 (47.7–51.0)	979	55.7 (52.2–59.2)	404	58.4 (52.5–64.1)	
Unclear LGBTQ+ status	601	44.8 (41.3–48.4)	63	45.4† (27.9–63.8)	38		
Mental health status							
Good to excellent	7,041	48.8 (47.1–50.4)	751	55.5 (50.2–60.7)	329	57.8 (50.6–64.7)	
Fair	1,983	51.1 (48.3–53.9)	354	53.1 (47.7–58.4)	145	54.9 (45.6–63.9)	
Poor	617	42.8 (38.4–47.4)	145	50.3 (41.3–59.2)	93	52.8 (40.5–64.8)	
Rurality							
City	3,721	47.4 (44.9–50.0)	444	51.3 (45.4–57.3)	190	55.9 (47.9–63.7)	
Suburban	5,059	50.0 (48.0–51.9)	660	56.9 (52.3–61.4)	279	58.9 (49.8–67.5)	
Town or rural	1,229	46.6 (41.3–51.9)	209	48.4 (35.361.6)	123	50.6† (33.5–67.5)	

Table 3-4.	Prevalence of Perceiving That It Was Easy to Access Vapes from a Store among High
	School Respondents, by Vaping Status and Demographics (continued)

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Perceived access to vapes from the internet, however, had a different pattern than perceived access from a store (Table 3-5). Overall, respondents who had formerly vaped had the highest perceived access (69.0%), followed by those who had never vaped (65.3%) and those who currently vaped (64.9%).

	Never vaping		F	ormer vaping	Current vaping	
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	9,970	65.3 (63.7–66.9)	1,296	69.0 (66.3–71.6)	583	64.9 (59.6–70.0)
Gender identity						
Male	5,117	64.5 (62.7–66.3)	568	66.3 (61.7–70.7)	244	57.0 (48.3–65.4)
Female	4,495	66.1 (64.1–68.1)	673	70.4 (66.6–74.0)	294	69.3 (63.1–75.1)
Identified in another way	346	68.2 (62.4–73.6)	55	78.5 (66.4–87.8)	45	79.7 (64.6–90.4)
Race/ethnicity*						
White	1,679	65.4 (62.2–68.5)	220	60.7 (54.7–66.4)	162	55.7 (46.4–64.7)
African American or Black	479	67.9 (60.5–74.6)	57	76.5† (58.0–89.7)	27	
Hispanic	5,680	64.1 (62.0–66.1)	817	70.8 (67.2–74.2)	292	68.7 (62.5–74.5)
Asian	1,217	71.5 (68.0–74.8)	81	68.7 (54.9–80.5)	30	
Other	267	55.2 (47.6–62.6)	30	50.1† (33.7–66.5)	22	
Multiracial	626	66.1 (63.0–69.1)	89	77.5 (62.7–88.5)	48	69.6† (50.0–85.1)
Grade						
10	5,471	64.6 (62.7–66.4)	600	70.2 (65.8–74.4)	218	72.3 (65.3–78.5)
12	4,499	66.2 (64.0-68.3)	696	68.0 (63.7–72.0)	365	60.6 (53.4–67.5)
LGBTQ+ status**						
LGBTQ+	1,276	71.0 (68.1–73.8)	266	70.2 (63.6–76.3)	148	72.9 (62.5–81.8)
Non-LGBTQ+	8,048	64.8 (63.2–66.4)	965	68.8 (65.1–72.4)	395	62.3 (55.3–69.0)
Unclear LGBTQ+ status	595	60.6 (55.9–65.2)	64	65.9 (52.9–77.3)	40	63.4† (44.3–79.8)
Mental health status						
Good to excellent	7,018	64.3 (62.7–66.0)	747	69.2 (65.3–72.9)	327	63.0 (56.3–69.4)
Fair	1,988	71.0 (68.2–73.7)	350	68.9 (62.8–74.5)	140	64.8 (54.9–73.8)
Poor	608	63.8 (59.6–67.9)	142	71.3 (62.1–79.5)	91	72.8 (60.8–82.9)
Rurality						
City	3,712	64.3 (60.9–67.5)	441	68.2 (63.5–72.7)	188	65.4 (55.1–74.8)
Suburban	5,029	66.4 (64.6–68.2)	650	69.9 (66.1–73.5)	274	64.5 (56.2–72.2)
Town or rural	1,229	63.3 (59.7–66.9)	205	67.3 (56.4–77.0)	121	65.0 (52.8–76.0)

Table 3-5.Prevalence of Perceiving That It Was Easy to Access Vapes from the Internet among High
School Respondents, by Vaping Status and Demographics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- + The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Although this pattern held within some demographic categories, there were several exceptions. Female respondents who currently vaped (69.3%) or had previously vaped (70.4%) had similar perceived ease of access, which was higher than that of females who had never vaped (66.1%). The same pattern was observed for participants who identified their gender identity in another way (79.7% current, 78.5% former, 68.2% never). Among White respondents (65.4%) and respondents with fair mental health (71.0%), respondents who had never vaped had the highest perceived ease of access across all categories of use. Among 10th graders (72.3%) and those with poor mental health (72.8%), respondents who were currently vaping had the highest perceived ease of access.

Table 3-6 presents findings for perceived access to vapes from someone else. Overall, respondents who currently vaped had the highest perceived access to vapes from someone else (81.0%), followed by respondents who had formerly (79.0%) and never vaped (66.1%). This pattern was generally true across demographics, with a few exceptions. Among respondents who identified as multiracial (84.7%), had good to excellent mental health (79.8%), and attended schools in towns or rural settings (81.7%), those who had previously vaped had the highest perceived access across all use categories. Among males and non-LGBTQ+ respondents, perceived ease of access was similar across current (76.9% for males, 78.8% non-LGBTQ+) and former vapers (77.7% males, 78.9% non-LGBTQ+).

	Never vaping		F	ormer vaping	Current vaping		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	
Overall	9,991	66.1 (64.3–67.9)	1,301	79.0 (75.6–82.2)	589	81.0 (77.0–84.6)	
Gender identity							
Male	5,137	62.9 (60.7–65.0)	570	77.7 (73.7–81.4)	249	76.9 (71.3–81.8)	
Female	4,498	70.5 (68.3–72.6)	675	80.0 (75.2–84.1)	294	83.6 (77.2–88.8)	
Identified in another way	344	59.4 (53.3–65.3)	56	80.8 (66.4–90.9)	46	87.4 (71.1–96.4)	
Race/ethnicity*							
White	1,679	69.0 (64.0–73.6)	221	79.8 (72.5–85.8)	162	80.5 (72.2–87.2)	
African American or Black	483	67.3 (60.5–73.6)	56	82.0 (64.0–93.4)	27		
Hispanic	5,686	65.6 (63.3–67.9)	820	78.7 (73.9–83.0)	296	81.4 (75.8–86.3)	
Asian	1,219	63.9 (59.3–68.4)	81	77.0 (64.1–87.0)	30	86.8 (71.9–95.6)	
Other	268	60.9 (53.3–68.2)	30	60.6† (41.7–77.4)	21		
Multiracial	632	67.1 (62.6–71.5)	91	84.7 (74.4–92.0)	51	81.7 (64.8–92.8)	
Grade							
10	5,481	64.9 (62.6–67.1)	601	78.4 (73.3–83.0)	219	81.0 (74.1–86.7)	
12	4,510	67.6 (65.5–69.6)	700	79.5 (75.3–83.3)	370	81.0 (75.8–85.5)	
LGBTQ+ status**							
LGBTQ+	1,272	68.1 (64.9–71.1)	265	81.8 (75.2–87.2)	150	87.3 (79.0–93.3)	
Non-LGBTQ+	8,073	66.4 (64.4–68.4)	971	78.9 (75.3–82.2)	400	78.8 (74.3–82.9)	
Unclear LGBTQ+ status	595	57.7 (53.5–61.8)	64	69.1 (56.3-80.2)	39		
Mental health status							
Good to excellent	7,053	64.6 (62.5–66.8)	751	79.8 (75.6–83.7)	331	78.0 (72.7–82.7)	
Fair	1,992	73.4 (71.1–75.6)	351	79.1 (72.6–84.7)	142	86.8 (78.2–92.9)	
Poor	613	64.4 (58.8–69.7)	143	78.1 (70.4–84.7)	93	85.7 (72.7–94.1)	
Rurality							
City	3,719	64.3 (61.0–67.6)	441	76.3 (67.9–83.5)	191	80.7 (72.8–87.1)	
Suburban	5,041	66.6 (64.4–68.7)	655	80.0 (76.5–83.2)	276	81.6 (76.0–86.3)	
Town or rural	1,231	69.8 (64.7–74.6)	205	81.7 (73.9–88.0)	122	79.8 (63.7–91.0)	

Table 3-6.Prevalence of Perceiving That It Was Easy to Access Vapes from Someone Else among
High School Respondents, by Vaping Status and Demographics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- + The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

3.4 Perceived Access for Cigarettes

We also examined perceived access to cigarettes from a store, the internet, and someone else (Table 3-7). Although only a third of respondents thought it was easy to access cigarettes from a store (38.3%), more than half thought it was easy to access them from the internet (57.0%) or another person (59.3%). Respondents who currently smoked cigarettes reported the highest perceived access from a store (58.0%) or from someone else (72.5%), whereas respondents who had never smoked had the highest perceived access from the internet (57.5%).

	F	rom a store	Fro	m the internet	From someone else		
Characteristic	N	% (95% CI)	N	N % (95% CI)		% (95% CI)	
Overall	11,934	38.3 (37.0–39.7)	11,863	57.0 (55.7–58.3)	11,887	59.3 (57.5–61.1)	
Cigarette-smoking status							
Never smoking	11,293	37.8 (36.5–39.2)	11,232	57.5 (56.1–58.8)	11,257	58.7 (57.0–60.4)	
Former smoking	498	44.2 (38.3–50.3)	491	50.0 (44.5–55.6)	485	69.4 (64.0–74.5)	
Current smoking	136	58.0 (45.3–69.9)	134	46.8 (37.4–56.4)	137	72.5 (60.3–82.6)	

Table 3-7.	Prevalence of Perceiving That It Was Easy to Access Cigarettes among High School
	Respondents, by Cigarette-Smoking Status

Note. CI = Confidence interval

Table 3-8 examines perceived ease of access to cigarettes on the internet by demographic characteristics. We did not examine ease of access from a store by demographic characteristics due to small sample sizes. That said, analysis of access from the internet by demographic factors was also limited due to smaller sample sizes. Although respondents who had never smoked had the highest perceived access on the internet among 12th graders (57.9%), 10th-grade respondents who were currently smoking had the highest perceived access (62.5%). Consistent with the findings for all high school respondents, respondents who had never smoked had the highest perceived access across all categories of rurality.

	Ne	ever smoking	Fo	ormer smoking	Current smoking		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	
Overall	11,232	57.5 (56.1–58.8)	491	50.0 (44.5–55.6)	134	46.8 (37.4–56.4)	
Gender identity							
Male	5,655	57.2 (55.6–58.8)	215	53.3 (46.8–59.6)	61	44.3† (29.5–59.9)	
Female	5,179	57.5 (55.7–59.2)	251	48.6 (40.7–56.6)	39	35.4 (21.9–50.8)	
Identified in another way	388	61.1 (54.3–67.6)	24		34		
Race/ethnicity*							
White	1,865	56.2 (53.2–59.2)	143	45.3 (37.2–53.6)	55	38.4 (27.3–50.6)	
African American or Black	550	58.9 (53.2–64.5)	10		4		
Hispanic	6,481	56.3 (54.6–57.9)	270	53.4 (46.5–60.2)	41	53.0† (33.8–71.6)	
Asian	1,289	65.9 (62.1–69.6)	32	58.3† (42.4–72.9)	7		
Other	298	50.4 (43.1–57.6)	11		10		
Multiracial	723	57.8 (54.3–61.3)	24		17		
Grade							
10	6,051	57.1 (55.2–59.0)	199	52.9 (45.6–60.1)	49	62.5† (44.2–78.5)	
12	5,181	57.9 (56.1–59.7)	292	48.1 (38.8–57.4)	85	39.0 (27.8–51.1)	
LGBTQ+ status**							
LGBTQ+	1,507	61.3 (58.2–64.3)	131	50.8 (40.6–60.9)	56	46.8† (31.4–62.8)	
Non-LGBTQ+	9,021	57.0 (55.6–58.5)	333	49.8 (43.6–56.0)	62	44.4† (29.5–60.0)	
Unclear LGBTQ+ status	654	54.0 (50.0–58.0)	26		16		
Mental health status							
Good to excellent	7,748	56.8 (55.2–58.4)	273	49.1 (42.5–55.8)	74	52.2 (38.9–65.2)	
Fair	2,341	61.1 (58.5–63.7)	113	51.1 (39.5–62.6)	27		
Poor	733	56.7 (52.1–61.2)	82	51.5 (39.6–63.3)	27		
Rurality							
City	4,134	57.0 (54.6–59.4)	165	52.2 (44.0–60.4)	51	53.7† (37.7–69.1)	
Suburban	5,674	58.3 (56.5–60.1)	233	48.1 (38.7–57.6)	49	42.8† (27.3–59.4)	
Town or rural	1,424	54.7 (50.1–59.3)	93	51.5 (41.5–61.3)	34	39.8 (29.8–50.5)	

Table 3-8.Prevalence of Perceiving That It Was Easy to Access Cigarettes from the Internet among
High School Respondents, by Cigarette-Smoking Status and Demographics

Note. CI = Confidence interval; LGBTQ+ = lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.
- + The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Table 3-9 presents findings for perceived ease of access for cigarettes from another person. Due to smaller sample sizes, we were only able to examine patterns across a few demographic categories. The pattern observed for the overall sample (highest perceived access among respondents who currently smoked) held for 12th graders, with 74.3% of 12th graders who currently smoked reporting ease of access. Among 10th-grade respondents, those who had formerly smoked had the highest perceived access (70.2%).

	Ne	ever smoking	Fo	ormer smoking	C	urrent smoking
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	11,257	58.7 (57.0–60.4)	485	69.4 (64.0–74.5)	137	72.5 (60.3–82.6)
Gender identity						
Male	5,682	55.5 (53.4–57.6)	212	68.5 (60.4–75.8)	64	75.2 (58.1–87.9)
Female	5,180	62.5 (60.5–64.4)	247	71.8 (64.4–78.4)	39	
Identified in another way	385	57.5 (50.6–64.2)	25		34	68.1† (48.2–84.1)
Race/ethnicity*						
White	1,865	60.5 (56.2–64.6)	141	72.5 (60.2–82.7)	58	74.9† (55.9–88.7)
African American or Black	550	59.3 (53.8–64.5)	9		4	
Hispanic	6,495	58.5 (56.3–60.7)	266	67.6 (61.8–73.0)	41	59.9† (41.5–76.6)
Asian	1,290	57.6 (54.1–61.1)	32	74.3† (57.2–87.2)	7	
Other	300	54.0 (44.2–63.5)	10		10	
Multiracial	730	59.3 (55.2–63.4)	26		17	
Grade						
10	6,056	57.0 (54.7–59.2)	196	70.2 (62.9–76.8)	49	68.7† (48.8–84.5)
12	5,201	60.7 (58.5–62.8)	289	68.9 (61.5–75.6)	88	74.3 (59.4–85.9)

Table 3-9.Prevalence of Perceiving That It Was Easy to Access Cigarettes from Someone Else
among High School Respondents, by Cigarette-Smoking Status and Demographics

(continued)

	Ν	ever smoking	Fo	ormer smoking	С	Current smoking		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)		
LGBTQ+ status**								
LGBTQ+	1,501	60.2 (57.2–63.2)	131	70.1 (59.8–79.0)	56	71.9 (58.6–82.9)		
Non-LGBTQ+	9,051	59.2 (57.3–61.0)	326	69.4 (62.1–76.0)	65	68.3† (49.4–83.6)		
Unclear LGBTQ+ status	655	49.2 (45.4–53.0)	27		16			
Mental health status								
Good to excellent	7,788	57.9 (55.9–59.9)	271	71.2 (64.6–77.2)	76	69.4 (54.3–81.9)		
Fair	2,345	62.5 (60.0–65.0)	112	71.9 (59.9–82.0)	28			
Poor	739	58.3 (52.6–63.9)	83	60.6 (47.1–73.0)	27			
Rurality								
City	4,134	56.8 (54.0–59.6)	164	68.6 (60.9–75.5)	54			
Suburban	5,694	59.5 (57.2–61.7)	228	69.1 (59.7–77.5)	49	69.0 (53.4–82.0)		
Town or rural	1,429	61.2 (54.8–67.3)	93	72.4 (58.4–83.8)	34			

Table 3-9.Prevalence of Perceiving That It Was Easy to Access Cigarettes from Someone Else
among High School Respondents, by Cigarette-Smoking Status and Demographics
(continued)

Note. CI = Confidence interval; LGBTQ+ = lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

3.5 Summary

Among respondents who vaped, the most common method of obtaining vapes was buying their own. The most common sources for those who reported buying their own vapes were another person or a tobacco or smoke shop. The most common method of obtaining cigarettes among respondents who smoked cigarettes was buying their own. Due to small sample sizes, it was difficult to determine the most common source of purchase for respondents who bought their own cigarettes. However, almost half of those who reported buying their own cigarettes reported doing so from a gas station or convenience store. In terms of perceived access, respondents believed it was easier to get vapes and cigarettes from the internet or someone else than to get them from a store. Perceived access varied by use status and demographics.

4. Secondhand Exposure and Other Environmental Influences

This chapter focuses on environmental influences for tobacco use. It presents self-reported respondent exposure to secondhand vapor (i.e., vapor or aerosol from a vape or e-cigarette) and tobacco smoke (i.e., smoke from a cigarette, little cigar, or cigarillo) inside and outside and exposure to tobacco smoke in multiunit housing (MUH). In addition, this section presents self-reported information on home bans on vaping and smoking cigarettes or other tobacco products. This section also presents information on exposure to vaping and smoking in the media. Exposure to environmental influences is compared across tobacco use status when possible. It should be noted that questions about vapes reported in this chapter asked about vapes generally and did not specify the substance in the vape (e.g., nicotine, cannabis). As a result, responses could include exposure to vapes containing cannabis.

4.1 Exposure to Secondhand Vapor and Tobacco Smoke in Car or Room and Outside

The 2024 CYTS asked respondents about exposure to vapor and tobacco smoke (from a cigarette, little cigar, or cigarillo) both inside and outside. To assess indoor exposure, the survey asked, "In the last 2 weeks, were you in a car or room when someone was using a vape?" A similar question asked about secondhand exposure to tobacco smoke in a car or room by replacing the phrase "using a vape" with the phrase "smoking a cigarette, little cigar, or cigarillo."

Table 4-1 reports high school respondents' exposure to secondhand vapor and tobacco smoke in a car or room. Overall, secondhand exposure in a car or room within the last 2 weeks was higher for exposure to vapes (26.5%) than tobacco smoke (13.5%). Both respondents who currently vaped and currently smoked tobacco experienced higher levels of exposure to both vapor and smoke indoors. Respondents who currently vaped reported higher rates of exposure to vapor (77.0%) than those who never and formerly vaped (21.6% and 41.2% respectively). Respondents currently smoking tobacco (cigarettes, little cigars, and/or cigarillos) reported higher rates of exposure to tobacco smoke (49.5%) in a car or room than those who formerly smoked (27.4%) or had never smoked (12.2%).

Table 4-2 shows respondents' exposure to secondhand vapor and smoke outside. Respondents who reported having been near someone who was using a vape or smoking a cigarette, little cigar, or cigarillo outside of a restaurant, outside of a store, or at a park, playground, or beach in the last 2 weeks were considered to have been exposed outside. Exposure outdoors was higher than exposure indoors. Exposure to smoke outdoors (58.6%) was higher than exposure to vapor outside (43.0%). Similar to the patterns observed for indoor exposure, respondents who currently vaped (75.4%) reported higher exposure to vapor outside than respondents who formerly (53.0%) and never vaped (39.7%). The same pattern was observed for exposure to smoke outside by tobacco smoking (84.4% current, 68.4% former, 57.6% never).

	Var	oor exposure	Sm	oke* exposure	Vapor and/or smoke* exposure		
Use status	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	
Overall	12,493	26.5 (24.2–29.0)	12,515	13.5 (12.4–14.6)	12,490	30.3 (28.1–32.6)	
Vaping status							
Never	10,477	21.6 (19.6–23.7)	10,492	11.5 (10.5–12.5)	10,474	25.4 (23.6–27.4)	
Former	1,381	41.2 (36.8–45.6)	1,384	20.3 (17.2–23.6)	1,381 45.5 (40.8–50		
Current	625	77.0 (72.9–80.8)	628	32.0 (28.2–36.0)	625	78.9 (74.9–82.5)	
Tobacco smoking status**							
Never	11,694	24.1 (22.0–26.2)	11,713	12.2 (11.2–13.2)	11,692	27.8 (25.8–29.9)	
Former	603	59.0 (53.3–64.5)	603	27.4 (23.5–31.6)	602	62.8 (57.0–68.3)	
Current	172	75.9 (65.4–84.5)	174	49.5 (43.7–55.3)	172 81.0 (72.6–87.5		

Table 4-1.Prevalence of Last-2-Week Exposure to Vapor and Smoke* in Car or Room among High
School Respondents, by Vaping and Tobacco Smoking Status

Note. CI = Confidence interval

* Smoke from a cigarette, little cigar, or cigarillo.

** Use of cigarettes, little cigars, and/or cigarillos.

Table 4-2.Prevalence of Last-2-Week Exposure to Vapor and Smoke* Outside among High School
Respondents, by Vaping and Tobacco Smoking Status

	Va	por exposure	Sm	oke* exposure	V smo	'apor and/or oke* exposure
Use status	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	12,376	43.0 (41.0–45.0)	12,409	58.6 (56.6–60.5)	12,381	64.3 (62.3–66.2)
Vaping status						
Never	10,383	39.7 (37.8–41.7)	10,404	57.4 (55.2–59.6)	10,377	62.4 (60.2–64.5)
Former	1,363	53.0 (50.2–55.8)	1,377	62.3 (59.4–65.1)	1,371	69.9 (67.2–72.5)
Current	622	75.4 (70.2–80.1)	619	70.3 (65.9–74.5)	624	83.6 (79.2–87.3)
Tobacco smoking status**						
Never	11,590	41.4 (39.6–43.3)	11,619	57.6 (55.7–59.6)	11,591	63.1 (61.2–65.0)
Former	591	61.8 (57.1–66.2)	597	68.4 (64.0–72.6)	595	78.3 (74.3–81.9)
Current	172	79.2 (69.9–86.7)	172	84.4 (77.2–90.1)	172 90.3 (84.2–94.7)	

Note. CI = Confidence interval

* Smoke from a cigarette, little cigar, or cigarillo.

** Use of cigarettes, little cigars, and/or cigarillos.

Table 4-3 shows exposure to tobacco smoke (not defined) in MUH. Almost half of respondents (48.9%) living in MUH reported any (rarely or more often) exposure to tobacco smoke in their home in the last 6 months. However, only 5.3% reported that they were exposed often, and 3.7% reported being exposed most of the time.

	Tobacco sm n =	noke exposure 4,016
Frequency of exposure	%	% (95% CI)
Never	51.1	(48.4–53.8)
Rarely	25.3	(23.3–27.4)
Sometimes	14.6	(13.4–15.9)
Often	5.3	(4.5–6.1)
Most of the time	3.7	(3.1–4.4)

Table 4-3.Prevalence of Last-6-Month Exposure to Tobacco Smoke in Multiunit Housing among
High School Respondents Living in Multiunit Housing

Note. CI = Confidence interval

4.2 Exposure to Secondhand Vapor and Smoke by Race/Ethnicity

4.2.1 Indoors

We examined exposure to secondhand vapor and tobacco smoke (from a cigarette, little cigar, or cigarillo) indoors by demographics. Table 4-4 provides data on secondhand exposure to vapor and smoke in a car or room by race/ethnicity. White respondents reported the highest secondhand vapor exposure (38.0%), and respondents who identified as another race reported the highest secondhand smoke exposure (20.3%). Asian respondents reported the lowest secondhand vapor exposure (19.3%), and Hispanic respondents reported the lowest secondhand smoke exposure (11.2%).

Table 4-5 presents exposure to vapor in a car or room by vaping status and race/ethnicity. Because some values were suppressed due to small sample sizes, it was difficult to determine whether differences in exposure by race/ethnicity persisted across vaping statuses.

	Va	por exposure	Smo	oke* exposure	V smo	apor and/or oke* exposure
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	12,493	26.5 (24.2–29.0)	12,515	13.5 (12.4–14.6)	12,490	30.3 (28.1–32.6)
Race/ethnicity**						
White	2,152	38.0 (34.6–41.6)	2,153	18.1 (15.2–21.2)	2,152	42.3 (39.1–45.5)
African American or Black	607	23.0 (19.0–27.4)	609	13.5 (10.0–17.6)	606	28.3 (23.8–33.1)
Hispanic	7,161	22.7 (20.7–24.7)	7,176	11.2 (10.4–12.1)	7,159	25.9 (24.0–27.9)
Asian	1,379	19.3 (14.9–24.4)	1,382	11.4 (9.4–13.8)	1,379	23.2 (18.9–27.9)
Other	337	29.1 (23.2–35.5)	338	20.3 (14.7–27.0)	337	36.4 (30.3–42.7)
Multiracial	822	32.7 (28.5–37.2)	822	16.5 (13.9–19.4)	822	36.3 (32.0–40.8)

Table 4-4.Prevalence of Last-2-Week Exposure to Vapor and Smoke* in a Car or Room among High
School Respondents, by Race/Ethnicity

Note. CI = Confidence interval

* Smoke from a cigarette, little cigar, or cigarillo.

** With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

	N	lever vaping	F	ormer vaping	C	Current vaping
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	10,477	21.6 (19.6–23.7)	1,381	41.2 (36.8–45.6)	625	77.0 (72.9–80.8)
Race/ethnicity*						
White	1,746	31.6 (28.7–34.5)	235	53.6 (46.0–61.2)	171	85.0 (77.7–90.6)
African American or Black	517	18.7 (14.2–24.0)	62	37.0† (22.1–54.0)	28	
Hispanic	5,967	18.4 (16.7–20.2)	871	33.9 (29.5–38.6)	315	73.3 (66.4–79.4)
Asian	1,265	16.5 (12.5–21.3)	83	45.2 (32.3–58.7)	30	72.5† (52.6–87.5)
Other	281	25.6 (19.8–32.2)	31		25	
Multiracial	670	25.1 (21.0–29.6)	97	66.0 (52.9–77.5)	54	77.9 (62.3–89.2)

Table 4-5.Prevalence of Last-2-Week Exposure to Vapor in Car or Room among High School
Respondents, by Vaping Status and Race/Ethnicity

Note. CI = Confidence interval

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Table 4-6 shows secondhand exposure to tobacco smoke in a car or room by smoking status and race/ethnicity. It was difficult to determine whether differences in exposure by race/ethnicity persisted across smoking status because some values were suppressed due to small sample sizes.

	Ne	ver smo	oking**	Former smoking**			Current smoking**		
Characteristic	N	%	« (95% CI) N		%	% (95% CI)		%	(95% CI)
Overall	11,713	12.2	(11.2–13.2)	603	27.4	(23.5–31.6)	174	49.5	(43.7–55.3)
Race/ethnicity***									
White	1,916	15.8	(13.1–18.9)	167	32.5	(24.5–41.2)	69	47.0	(32.7–61.6)
African American or Black	592	11.6	(8.9–14.7)	11	_	-	6	_	-
Hispanic	6,761	10.2	(9.4–11.0)	337	24.2	(19.8–29.0)	63	51.9	(38.7–64.9)
Asian	1,329	11.1	(9.3–13.2)	37	_	—	8	_	_
Other	315	19.3	(13.2–26.7)	13	—	—	10	—	—
Multiracial	766	15.2	(12.5–18.3)	37	_	_	18	_	_

Table 4-6.	Prevalence of Last-2-Week Exposure to Smoke* in Car or Room among High School
	Respondents, by Tobacco Smoking Status and Race/Ethnicity

Note. CI = Confidence interval

* Smoke from a cigarette, little cigar, or cigarillo.

** Includes use of cigarettes, little cigars, and/or cigarillos.

*** With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

4.2.2 Outside

Tables 4-7 presents data on secondhand exposure to vapor and tobacco smoke outside by race/ethnicity. White respondents reported the greatest secondhand exposure to vapor (48.1%) and smoke (61.4%) outside. Exposure to vapor outside was lowest among Asian respondents (36.1%), and exposure to smoke outside was lowest among African American or Black respondents (53.6%).

Table 4-8 presents exposure to vapor outside by vaping status and race/ethnicity. It was difficult to determine whether differences in exposure by race/ethnicity persisted across vaping status because some values were suppressed due to small sample sizes.

	Va	oor exposure	Smo	oke* exposure	Va smc	apor and/or oke* exposure
Characteristic	Ν	% (95% CI)	Ν	% (95% CI)	Ν	% (95% CI)
Overall	12,376	43.0 (41.0–45.0)	12,409	58.6 (56.6–60.5)	12,381	64.3 (62.3–66.2)
Race/ethnicity**						
White	2,134	48.1 (44.5–51.6)	2,138	61.4 (57.5–65.1)	2,134	68.3 (64.6–71.9)
African American or Black	602	38.4 (32.8–44.3)	602	53.6 (48.6–58.6)	600	59.0 (54.2–63.6)
Hispanic	7,096	42.5 (40.1–44.9)	7,116	58.0 (55.8–60.1)	7,102	63.4 (61.2–65.5)
Asian	1,366	36.1 (32.6–39.6)	1,369	58.2 (52.4–63.8)	1,365	62.9 (57.5–68.1)
Other	334	44.1 (39.1–49.2)	336	56.0 (50.0–61.9)	335	60.0 (54.9–65.1)
Multiracial	809	45.1 (40.9–49.3)	814	59.6 (54.8–64.2)	811	66.5 (61.5–71.3)

Table 4-7.Prevalence of Last-2-Week Exposure to Vapor and Smoke* Outside among High School
Respondents, by Race/Ethnicity

Note. CI = Confidence interval

* Smoke from a cigarette, little cigar, or cigarillo.

** With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

	-		-				
	Ν	lever vaping	F	Former vaping		Current vaping	
Characteristic	N	% (95% CI)	Ν	% (95% CI)	Ν	% (95% CI)	
Overall	10,383	39.7 (37.8–41.7)	1,363	53.0 (50.2–55.8)	622	75.4 (70.2–80.1)	
Race/ethnicity*							
White	1,736	44.7 (41.3–48.0)	230	50.6 (42.1–59.1)	168	81.1 (73.4–87.3)	
African American or Black	511	36.7 (30.5–43.3)	62	43.2† (26.7–60.8)	29		
Hispanic	5,912	39.5 (36.9–42.2)	863	52.5 (49.4–55.6)	316	71.5 (64.9–77.5)	
Asian	1,254	34.0 (30.8–37.4)	81	52.0 (39.6–64.2)	29		
Other	280	39.6 (33.9–45.4)	30		24		
Multiracial	659	40.1 (36.2-44.2)	95	65.5 (49.6–79.1)	54	76.3 (59.4–88.7)	

Table 4-8.Prevalence of Last-2-Week Exposure to Vapor Outside among High School Respondents,
by Vaping Status and Race/Ethnicity

Note. CI = Confidence interval

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A. ⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Table 4-9 presents exposure to tobacco smoke outside by vaping status and race/ethnicity. It was difficult to determine whether differences in exposure by race/ethnicity persisted across vaping status because some values were suppressed due to small sample sizes.

	Nev	ver smoking**	Fo	rmer smoking**	Cu	rrent smoking**
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	11,619	57.6 (55.7–59.6)	597	68.4 (64.0–72.6)	172	84.4 (77.2–90.1)
Race/ethnicity***						
White	1,903	60.2 (56.3–64.0)	165	64.8 (54.6–74.2)	69	86.9 (71.7–95.7)
African American or Black	585	53.0 (47.8–58.3)	11		6	
Hispanic	6,709	57.2 (55.0–59.4)	333	71.5 (65.9–76.8)	62	75.4 (62.9–85.4)
Asian	1,318	58.1 (52.1–63.8)	37	54.7† (36.4–72.0)	7	
Other	313	54.9 (48.5–61.1)	13		10	
Multiracial	758	57.8 (53.1–62.5)	37	79.3 (64.4–90.0)	18	

Table 4-9.Prevalence of Last-2-Week Exposure to Smoke* Outside among High School
Respondents, by Tobacco Smoking Status and Race/Ethnicity

Note. CI = Confidence interval

* Smoke from a cigarette, little cigar, or cigarillo

** Includes use of cigarettes, little cigars, and/or cigarillos.

*** With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

4.3 Home Bans on Vaping and Smoking Cigarettes or Other Tobacco Products

Home bans are an important predictor of tobacco use, influencing initiation among respondents who have never used tobacco,^{10,11} cessation among people currently using tobacco,^{12,13} relapse among those who previously used tobacco,¹⁰ and intensity of tobacco use and dependence among respondents who currently use tobacco.^{14,15} In two separate questions, respondents were asked to indicate which statement best described rules about (a) vaping and

(b) smoking cigarettes or other tobacco products inside their homes. Respondents who indicated that vaping or smoking was not allowed anywhere or at any time inside their home were classified as having a "complete home ban" on vaping or smoking and were compared with respondents who provided all other responses for rules about vaping or smoking in the home ("incomplete home ban").

Tables 4-10 and 4-11 present the prevalence of complete home bans on vaping and smoking any tobacco product by vaping and tobacco smoking status (smoking cigarettes, little cigars, and/or cigarillos). Most respondents (84.3%) reported a complete home ban on vaping (84.3%) and smoking (81.7%). Respondents who had never vaped or smoked tobacco had the highest prevalence of home bans (86.2% and 82.5%, respectively), and respondents who currently vaped and smoked tobacco had the lowest prevalence of home bans (65.2% and 56.9%, respectively).

	Vaping ban					
Use status	N	% (95% CI)				
Overall	12,466	84.3 (83.0–85.5)				
Vaping status						
Never	10,450	86.2 (85.1–87.2)				
Former	1,380	78.4 (74.9–81.7)				
Current	625	65.2 (59.5–70.5)				

Table 4-10.Prevalence of Complete Home Bans on Vaping among High School Respondents, by
Vaping Status

Note. CI = Confidence interval

Table 4-11.Prevalence of Complete Home Bans on Smoking among High School Respondents, by
Tobacco Smoking Status

	Smoking ban				
Use status	N	% (95% CI)			
Overall	12,327	81.7 (80.7–82.7)			
Tobacco smoking status*					
Never	11,543	82.5 (81.5–83.4)			
Former	595	74.3 (69.1–79.0)			
Current	166	56.9 (49.3–64.4)			

Note. CI = Confidence interval

* Includes use of cigarettes, little cigars, and/or cigarillos.

We examined home bans by demographics. Table 4-12 provides data on complete home bans on vaping and tobacco smoking by race/ethnicity. Asian respondents had the highest prevalence of complete home bans for both vaping (85.9%) and smoking (83.1%). Other race respondents reported the lowest prevalence of complete home bans for vaping (79.6%), and African American or Black respondents reported the lowest prevalence of complete home bans for smoking (75.1%).

	١	/aping ban	Smoking* ban		
Characteristic	N % (95% CI)		N	% (95% CI)	
Overall	12,466	84.3 (83.0–85.5)	12,327	81.7 (80.7–82.7)	
Race/ethnicity**					
White	2,146	84.0 (81.0-86.8)	2,135	82.5 (80.0–84.9)	
African American or Black	607	81.8 (77.1–85.9)	602	75.1 (69.8–79.9)	
Hispanic	7,145	85.3 (84.3–86.4)	7,053	82.3 (81.4–83.2)	
Asian	1,378	85.9 (82.5–88.8)	1,368	83.1 (80.6–85.5)	
Other	336	79.6 (72.8–85.4)	324	77.8 (72.4–82.6)	
Multiracial	820	79.8 (75.1–84.0)	812	79.8 (76.0–83.2)	

Table 4-12.	Prevalence of Complete Home Bans on Vaping and Smoking* among High School
	Respondents, by Race/Ethnicity

Note. CI = Confidence interval

* Smoking cigarettes or other tobacco products.

** With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

Table 4-13 presents the prevalence of home vaping bans by vaping status and race/ethnicity. Sample sizes were too small to determine whether the overall pattern of home vaping bans being most common among Asian respondents and least common among other race respondents persisted across vaping status.

	N	lever vaping	F	ormer vaping	C	urrent vaping
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	10,450	86.2 (85.1-87.2)	1,380	78.4 (74.9–81.7)	625	65.2 (59.5–70.5)
Race/ethnicity*						
White	1,741	86.0 (83.0–88.7)	235	79.4 (72.1–85.5)	170	69.3 (60.4–77.2)
African American or Black	517	84.9 (80.3–88.8)	62	67.9† (50.3–82.5)	28	
Hispanic	5,952	86.9 (85.8–88.0)	870	80.4 (76.9–83.5)	315	68.5 (61.7–74.9)

Table 4-13.Prevalence of Complete Home Vaping Bans among High School Respondents, by Vaping
Status and Race/Ethnicity

(continued)

	Never vaping		Former vaping		Current vaping	
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Asian	1,262	87.1 (83.9–89.9)	83	79.3 (68.0–88.0)	31	51.2† (31.8–70.3)
Other	280	82.6 (74.7–88.8)	31		25	
Multiracial	668	83.1 (78.5–87.1)	97	66.3 (52.0–78.8)	54	58.8† (41.2–74.9)

Table 4-13.Prevalence of Complete Home Vaping Bans among High School Respondents, by Vaping
Status and Race/Ethnicity (continued)

Note. CI = Confidence interval

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Table 4-14 presents the prevalence of home smoking bans by tobacco smoking status and race/ethnicity. Sample sizes were too small to determine whether the overall pattern of home smoking bans being most common among Asian respondents and least common among African American/Black respondents persisted across vaping status.

	Nev	ver smoking**	For	mer smoking**	Cur	rent smoking**
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	11,543	82.5 (81.5–83.4)	595	74.3 (69.1–79.0)	166	56.9 (49.3–64.4)
Race/ethnicity***						
White	1,901	83.2 (80.7–85.4)	164	79.8 (70.2–87.4)	69	70.7 (59.2–80.5)
African American or Black	586	76.2 (71.0–80.8)	11		5	
Hispanic	6,647	83.2 (82.2–84.2)	334	70.2 (63.4–76.4)	58	50.6 (37.5–63.6)
Asian	1,316	83.4 (81.0–85.7)	36		8	
Other	302	79.4 (73.7–84.4)	12		10	
Multiracial	759	80.4 (76.4–83.9)	37	83.1 (65.4–94.0)	16	

Table 4-14.Prevalence of Complete Home Bans on Smoking* among High School Respondents, by
Smoking Status and Race/Ethnicity

Note. CI = Confidence interval

* Smoking cigarettes or other tobacco products.

** Includes use of cigarettes, little cigars, and/or cigarillos.

*** With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

4.4 Exposure to Vape and Cigarette Advertisements in Last 30 Days

Exposure to advertising influences tobacco use behavior. The survey asked respondents several questions about advertising exposure. First, they were asked whether they had a favorite advertisement for vaping products. They were also asked how often they saw someone smoking cigarettes or vaping on a social media site in the last 30 days (never, rarely, sometimes, often, always). Respondents were also asked how much attention they paid to social media posts about vaping (none, a little, some, or a lot).

Table 4-15 presents results for having a favorite vaping advertisement. Few respondents (3.3%) reported having a favorite vaping advertisement. Those who currently vaped were most likely to having a favorite advertisement (13.4%).

	Have a	a favorite advertisement	
Use status	N	% (95% CI)	
Overall	11,792	3.3 (2.9–3.7)	
Vaping status			
Never	9,924	2.5 (2.2–2.8)	
Former	1,281	5.5 (4.2–7.1)	
Current	579	13.4 (9.8–17.7)	

Table 4-15.Prevalence of Having a Favorite Vaping Advertisement among High School Respondents,
by Vaping Status

Note. CI = Confidence interval

Table 4-16 presents the reported prevalence of having seen someone vaping on social media site in the last 30 days. Response options were "rarely," "sometimes," "often," or "always." A little over two-thirds of respondents (70.4%) reported some level of exposure (rarely, sometimes, often, always) to vaping on social media. Exposure varied by vaping status. A greater percentage of respondents who currently and formerly vaped reported exposure "often" or "always" than respondents who never vaped.

Table 4-16.	Last-30-Day Social Media Exposure to Vaping among High School Respondents, by
	Vaping Status

Frequency of exposure	Overall N = 11,718 % (95% Cl)	Never vaping <i>N</i> =9,862 % (95% CI)	Former vaping <i>N</i> = 1,269 % (95% Cl)	Current vaping N = 577 % (95% CI)
Never	29.6 (28.3–31.0)	31.8 (30.4–33.1)	17.5 (14.9–20.3)	18.5 (15.4–21.9)
Rarely	25.6 (24.6–26.7)	26.1 (25.0–27.2)	24.4 (21.3–27.7)	19.7 (15.9–23.9)
Sometimes	25.8 (24.8–26.8)	24.9 (23.8–26.1)	31.2 (28.6–33.9)	28.5 (23.8–33.5)
Often	14.5 (13.5–15.6)	13.4 (12.4–14.5)	19.3 (17.0–21.7)	23.5 (19.2–28.2)
Always	4.5 (3.9–5.0)	3.7 (3.2–4.3)	7.7 (6.2–9.3)	9.8 (7.3–12.8)

Note. CI = Confidence interval

Respondents also answered a question about exposure to cigarette smoking on social media (Table 4-17). Over half (58.5%) of respondents reported some (rarely, sometimes, often, always) exposure to cigarette smoking on social media in the last 30 days. A larger percentage of respondents who currently and formerly smoked cigarettes reported exposure "often" or "always" than those that had never smoked cigarettes.

Frequency of exposure	Overall N = 11,712 % (95% CI)	Never cigarette smoking N = 9,862 % (95% CI)	Former cigarette smoking N = 1,269 % (95% CI)	Current cigarette smoking N = 577 % (95% CI)
Never	41.5 (40.0–43.0)	42.2 (40.7–43.7)	30.6 (26.0–35.6)	23.4 (15.2–33.3)
Rarely	30.8 (29.7–31.9)	30.9 (29.6–32.1)	31.6 (26.5–37.0)	24.3 (18.1–31.5)
Sometimes	17.9 (16.8–19.1)	17.6 (16.4–18.7)	23.4 (19.0–28.4)	27.3 (19.9–35.7)
Often	6.9 (6.4–7.4)	6.7 (6.2–7.2)	9.8 (7.5–12.5)	11.0 (6.0–18.0)
Always	2.9 (2.5–3.3)	2.7 (2.2–3.1)	4.6 (2.9–6.9)	14.1 (7.7–22.9)

Table 4-17.	Last-30-Day Social Media Exposure to Cigarette Smoking among High School
	Respondents, by Cigarette-Smoking Status

Note. CI = Confidence interval

The survey also asked respondents how much attention they paid to social media posts about vaping (Table 4-18). Less than half (41.1%) of respondents reported paying any attention (a little, some, or a lot) to social media posts about vaping. Attention paid to posts varied by vaping status. A larger percentage of respondents who currently vaped reported paying attention (a little, some, or a lot) to these posts than respondents who formerly or never vaped.

Amount of attention	Overall N = 11,764 % (95% CI)	Never vaping N = 9,901 % (95% Cl)	Former vaping N = 1,274 % (95% Cl)	Current vaping N = 580 % (95% CI)
None	59.9 (58.7–61.0)	61.9 (60.7–63.1)	52.3 (49.0–55.5)	41.4 (37.2–45.7)
A little	28.1 (27.1–29.0)	26.8 (25.8–27.8)	33.3 (30.7–36.1)	38.3 (33.9–42.7)
Some	10.2 (9.5–11.0)	9.6 (8.8–10.5)	12.5 (10.5–14.7)	15.3 (12.3–18.8)
A lot	1.9 (1.6–2.1)	1.7 (1.4–2.0)	1.9 (1.1–3.1)	5.0 (3.2–7.4)

Table 4-18.Attention Paid to Social Media Posts About Vaping among High School Respondents, by
Vaping Status

Note. CI = Confidence interval

4.5 Summary

Reported exposure to secondhand vapor and/or smoke was higher outdoors than indoors. Onethird of high school respondents reported exposure to secondhand vapor and/or smoke in a car or room in the past 2 weeks. Two-thirds reported exposure to one or both substances outside in the past 2 weeks. Approximately half of respondents living in MUH reported some exposure (rarely or more often) to tobacco smoke in the past 6 months. Exposure to secondhand vapor and/or smoke in a car or room and outside varied by race/ethnicity and vaping and tobacco smoking status. High school respondents who currently vaped or smoked tobacco reported the highest exposure to secondhand vapor and/or tobacco smoke in a car or room and outside. More than three-quarters of respondents reported a complete home ban on vaping, and a similar percentage reported a complete home ban on smoking. The presence of home bans on vaping and smoking varied by use status and race/ethnicity. Respondents who had never vaped or smoked reported the highest prevalence of complete home bans. Less than 5% of respondents reported having a favorite vaping advertisement, although a larger percentage of respondents who currently vaped reported having a favorite ad than those who had formerly or never vaped. Past-30-day exposure to vaping on social media was higher than exposure to cigarette smoking on social media. Social media exposure to vaping and cigarette smoking varied by vaping status, respectively. Attention paid to social media posts about vaping varied by vaping status.

5. Susceptibility to Future Tobacco Use and Perceptions of Vaping and Smoking

The 2024 CYTS measured susceptibility in two different ways. For the most popular products (vapes, cigarettes, and LCCs), we used a three-item susceptibility scale. For each product, these questions were only asked of respondents who had never used the product. The scale asked respondents whether they would use the product if one of their best friends offered it to them, whether they thought they would try the product soon, and whether they thought they would use the product soon, and whether they thought they would use the product soon, and whether they thought they would use the product soon, and whether they thought they would use the product of their best friends offered it to them, whether to bacco products captured by the survey (HTPs, hookah, smokeless, and nicotine pouches), we only asked one question: whether respondents would use the product if one of their best friends offered the product to them. Due to low use of cigars among youth, we did not administer a susceptibility item for cigars. We present susceptibility for only vapes, cigarettes, and LCCs in this chapter, as the three-item susceptibility scale is superior to the single-item scale.

Social norms affect tobacco use behavior.^{16,17} This chapter also presents data on reported reasons for vaping among respondents who currently vaped. It also presents data on respondents' beliefs about how adults, peers or classmates, and friends perceive vaping and smoking cigarettes. Finally, respondents' opinions of the tobacco industry are reported. These perceptions are compared across tobacco use status (i.e., never, former, or current use) or demographics, when appropriate.

5.1 Susceptibility to Vapes, Cigarettes, and LCCs by Demographic Characteristics

Table 5-1 presents susceptibility to future use of vapes, cigarettes, and/or LCCs among respondents who had never used one or more of these three products by respondent demographic. Overall, 42.9% of respondents who had never used these products were susceptible to one or more products. We found differences in susceptibility by demographic. Among respondents who answered the gender identity question, respondents who identified their gender in another way reported higher susceptibility to vapes, cigarettes, and/or LCCs (54.0%) compared to female (43.6%) or male (41.5%) respondents. Among race/ethnicity categories, White respondents reported the highest susceptibility (45.7%), and Asian respondents reported the lowest (34.7%). Twelfth-grade respondents were more susceptible (44.4%) than respondents in 10th grade (41.6%). LGBTQ+ respondents had higher susceptibility (54.6%) than respondents with unclear LGBTQ+ status (45.1%) or who were non-LGBTQ+ (40.7%). When examining susceptibility by reported mental health status, respondents with poor mental health were most susceptible (54.6%), followed by those with fair (50.1%) and good to excellent (39.4%) mental health. Finally, respondents attending schools located in

towns or rural settings had the highest susceptibility (46.7%), followed by respondents attending schools in suburban areas (43.3%) or cities (41.2%).

	Susceptible to vapes, cigarettes, and/or LCCs			
Characteristic	Ν	% (95% CI)		
Overall	12,330	42.9 (41.3–44.6)		
Gender identity				
Male	6,167	41.5 (39.7–43.2)		
Female	5,704	43.6 (41.6–45.6)		
Identified in another way	442	54.0 (48.3–59.6)		
Race/ethnicity*				
White	2,100	45.7 (41.1–50.4)		
African American or Black	603	39.7 (34.0–45.6)		
Hispanic	7,086	44.1 (42.5–45.7)		
Asian	1,372	34.7 (30.8–38.7)		
Other	332	37.4 (32.6–42.4)		
Multiracial	803	43.9 (38.3–49.7)		
Grade				
10	6,614	41.6 (39.5–43.7)		
12	5,716	44.4 (42.5–46.3)		
LGBTQ+ status**				
LGBTQ+	1,725	54.6 (51.0–58.1)		
Non-LGBTQ+	9,812	40.7 (39.1–42.3)		
Unclear LGBTQ+ status	732	45.1 (41.3–48.9)		
Mental health status				
Good to excellent	8,198	39.4 (37.5–41.4)		
Fair	2,511	50.1 (47.5–52.8)		
Poor	849	54.6 (50.0–59.1)		
Rurality				
City	4,534	41.2 (39.3–43.1)		
Suburban	6,210	43.3 (40.6–45.9)		
Town or rural	1,586	46.7 (42.5–51.0)		

Table 5-1.Susceptibility to Vapes, Cigarettes, and/or LCCs among High School Respondents Who
Had Never Used One or More of These Products, by Demographic Characteristics

Note. LCCs = Little cigars or cigarillos; CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

When comparing susceptibility across vapes, cigarettes, and LCCs (Table 5-2), respondents were most susceptible to vapes (36.1%), followed by LCCs (20.8%) and cigarettes (20.2%). With the exception of race/ethnicity, similar patterns for vapes, cigarettes, and LCCs persisted across demographics. For race/ethnicity, susceptibility varied by product. Whereas Hispanic respondents (38.5%) had the highest susceptibility to vapes, White respondents had the highest susceptibility to cigarettes (23.7%) and LCCs (25.1%). Similarly, Asian respondents had the lowest susceptibility to vapes (28.7%) and LCCs (15.4%), and African American/Black respondents (14.5%) had the lowest susceptibility to cigarettes.

		Vapes	Cigarettes			LCCs
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Overall	10,475	36.1 (34.7–37.5)	11,824	20.2 (18.6–21.8)	12,243	20.8 (19.3–22.3)
Gender identity						
Male	5,379	33.1 (31.6–34.6)	5,959	19.5 (17.9–21.2)	6,102	22.8 (21.2–24.4)
Female	4,723	38.9 (37.1–40.8)	5,448	20.1 (18.1–22.1)	5,687	18.1 (16.5–19.8)
Identified in	356	43.2 (37.2–49.4)	400	32.0 (26.5–37.9)	437	27.8 (24.0–31.8)
another way						
Race/ethnicity*						
White	1,746	35.6 (32.0–39.3)	1,940	23.7 (20.0–27.7)	2,072	25.1 (21.4–29.1)
African American	517	35.4 (29.8–41.3)	593	14.5 (11.0–18.7)	603	17.5 (13.4–22.3)
or Black						
Hispanic	5,970	38.5 (37.0–40.1)	6,832	19.8 (18.7–21.0)	7,032	20.5 (19.2–21.9)
Asian	1,264	28.7 (25.8–31.8)	1,337	16.7 (13.5–20.4)	1,370	15.4 (13.0–18.1)
Other	281	29.0 (23.8–34.6)	316	16.9 (12.2–22.4)	332	18.9 (14.8–23.5)
Multiracial	667	36.2 (30.4–42.3)	772	23.4 (18.1–29.4)	799	21.8 (16.5–27.9)
Grade						
10	5,783	35.2 (33.5–36.9)	6,405	19.8 (17.8–22.0)	6,587	19.4 (17.5–21.4)
12	4,692	37.1 (35.0–39.3)	5,419	20.6 (19.0–22.3)	5,656	22.4 (20.7–24.1)
LGBTQ+ status**						
LGBTQ+	1,324	45.7 (42.2–49.2)	1,567	30.1 (26.8–33.6)	1,706	27.0 (24.3–29.8)

Table 5-2.Proportion of High School Respondents Who Had Never Vaped, Never Smoked
Cigarettes, and/or Never Smoked LCCs Who Were Susceptible to Future Use of These
Products, by Demographic Characteristics

(continued)

		Vapes Cigarettes		LCCs		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Non-LGBTQ+	8,455	34.3 (32.9–35.7)	9,495	18.3 (16.8–19.8)	9,748	19.8 (18.3–21.3)
Unclear LGBTQ+ status	636	39.3 (35.8–42.8)	699	23.4 (19.6–27.5)	727	20.4 (17.3–23.8)
Mental health status						
Good to excellent	7,193	32.9 (31.3–34.5)	7,942	17.9 (16.3–19.7)	8,153	18.6 (17.1–20.3)
Fair	2,034	44.0 (40.9–47.1)	2,397	24.6 (22.5–26.8)	2,486	23.5 (21.2–26.1)
Poor	633	46.2 (41.1–51.4)	759	29.0 (24.4–33.8)	836	31.5 (27.5–35.7)
Rurality						
City	3,919	34.4 (32.6–36.2)	4,353	19.7 (18.2–21.3)	4,502	19.6 (17.6–21.6)
Suburban	5,280	36.5 (34.5–38.5)	5,978	20.3 (17.6–23.2)	6,169	20.9 (18.6–23.3)
Town or rural	1,276	39.5 (33.4–45.7)	1,493	21.2 (18.8–23.8)	1,572	24.2 (21.2–27.4)

Table 5-2.Proportion of High School Respondents Who Had Never Vaped, Never SmokedCigarettes, and/or Never Smoked LCCs Who Were Susceptible to Future Use of TheseProducts, by Demographic Characteristics (continued)

Note. LCCs = Little cigars or cigarillos; CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

5.2 Susceptibility to Vape and Cigarette Use by Peer Vaping and Smoking

One factor that affects youth susceptibility is peer tobacco use.¹⁸ The survey asked respondents to indicate the proportion of their friends who used vapes or smoked cigarettes. It should be noted that this question asked about vapes generally and did not specify the substance in the vape (e.g., nicotine, cannabis, or only flavoring). As a result, responses could include friends who used vapes with cannabis.

Overall, peer use and individual susceptibility appeared to be positively correlated. Tables 5-3 and 5-4 present the susceptibility to future vape or cigarette use (among respondents who had never used these products), by the self-reported proportion of their friends who used the tobacco product. Susceptibility to vaping was substantially higher for respondents with some (46.5%) or most/all (46.9%) friends who vaped, compared to respondents with no friends who

vaped (28.0%). The pattern was observed for susceptibility to cigarette smoking and having friends who smoked cigarettes.

Table 5-3.Prevalence of Susceptibility to Vaping among High School Respondents Who Had Never
Vaped, by Friend Vaping Status

	Suscept	Susceptible to vapes		
Friends who vape	N	% (95% CI)		
None	5,712	28.0 (26.1–29.9)		
Some	3,702	46.5 (44.2–48.8)		
Most/all	715	46.9 (42.4–51.4)		

Note. CI = Confidence interval.

Table 5-4.Prevalence of Susceptibility to Cigarette Smoking among High School Respondents Who
Had Never Smoked Cigarette, by Friend Smoking Status

	Susceptible to cigarettes		
Friends who smoke cigarettes	N	% (95% CI)	
None	9,795	17.5 (16.2–18.9)	
Some	1,290	36.4 (32.4–40.4)	
Most/all	319	34.5 (27.4–42.1)	

Note. CI = Confidence interval

5.3 Reasons for Vaping

Respondents who had vaped in the last 30 days were asked why they vaped. Table 5-5 shows the percentage of respondents who endorsed each reason. The most-endorsed response was "to relax or relieve stress and anxiety" (33.1%), followed by "for the nicotine buzz" (24.8%). Less than 10% of respondents endorsed each of the remaining reasons. The least-endorsed reason for vaping was "to try to quit using other products" (1.6%).

Table 5-5.Reported Reasons for Vaping among High School Respondents Who Were Currently
Vaping

	Currently va <i>N</i>	ping respondents = 619
Most important reason	%	(95% CI)
To relax or relieve stress and anxiety	33.1	(28.0–38.5)
For the nicotine buzz	24.8	(19.3–30.9)
To have a good time with my friends	8.7	(6.3–11.7)
It looks cool	5.5	(3.7–7.7)
To control my weight	5.3	(2.7–9.0)

(continued)

	Currently vaping respondent N = 619	
Most important reason	%	(95% CI)
To focus or concentrate	5.0	(3.4–7.3)
They are available in flavors I like	4.2	(2.7–6.2)
Because I am "hooked"	3.4	(2.1–5.3)
To fit in/peer pressure	3.2	(1.8–5.2)
Cloud competitions	2.7	(1.5–4.5)
I can use them unnoticed or hide them at home or at school	2.5	(1.3–4.3)
To try to quit using other products	1.6	(0.7–3.0)

Table 5-5. Reported Reasons for Vaping among High School Respondents Who Were Currently Vaping (continued)

Note. CI = Confidence interval

5.4 Adult Disapproval of Vaping and Smoking

Respondents were asked how adults who were important to them (such as parents, teachers, coaches, or relatives) would feel about the respondent using vapes. The same question was also asked for smoking cigarettes, using cannabis, and drinking alcohol.

Table 5-6 presents the percentage of respondents who reported that adults important to them would feel negatively ("negative" or "very negative" as opposed to "positive" or "very positive") about the respondent vaping. Almost all respondents believed adults would feel negatively about them vaping (96.4%) or smoking (96.7%). Little variability was evident in perceived negative views about vaping among adults across demographic categories, except that fewer respondents who identified their gender in another way (91.6%) reported that adults would have negative views about them vaping than those who identified as male (96.0%) or female (97.3%). The same pattern was observed for views about smoking cigarettes (90.9% for identified another way versus 96.2% for male and 97.8% for female). Respondents with unclear LGBTQ+ status were also less likely to report that adults would have negative views about them vaping (94.2%) or smoking cigarettes (93.9%) compared to LGBTQ+ (96.2% vaping, 96.8% smoking cigarettes) and non-LGBTQ+ (96.6% vaping, 96.9% smoking cigarettes) respondents. Respondents with poor mental health were less likely to report negative adult views on vaping (93.7%) and smoking (93.5%) than those with fair (98.0% vaping, 98.6% smoking) or good to excellent (96.3% vaping, 96.6% smoking) mental health.

	Negative views about vaping		Negative views about smoking cigarettes	
Characteristic	N	% (95% CI)	N	% (95% CI)
Overall	11,852	96.4 (96.1–96.8)	11,857	96.7 (96.3–97.1)
Gender identity				
Male	5,929	96.0 (95.3–96.6)	5,929	96.2 (95.4–96.8)
Female	5,470	97.3 (96.8–97.8)	5,474	97.8 (97.3–98.3)
Identified in another way	442	91.6 (88.6–94.0)	443	90.9 (87.7–93.4)
Race/ethnicity*				
White	2,059	96.8 (96.0–97.5)	2,060	97.2 (96.4–97.9)
African American or Black	564	96.0 (93.8–97.6)	564	96.1 (93.7–97.7)
Hispanic	6,790	96.0 (95.5–96.5)	6,793	96.4 (95.9–96.9)
Asian	1,329	97.8 (96.6–98.7)	1,330	97.6 (96.4–98.5)
Other	314	96.1 (93.1–98.0)	314	95.9 (92.7–97.9)
Multiracial	767	96.7 (94.8–98.0)	767	97.1 (95.5–98.2)
Grade				
10	6,301	96.5 (96.0–97.0)	6,304	96.8 (96.2–97.4)
12	5,551	96.3 (95.8–96.8)	5,553	96.6 (96.0–97.1)
LGBTQ+ status**				
LGBTQ+	1,691	96.2 (95.1–97.1)	1,692	96.8 (95.7–97.7)
Non-LGBTQ+	9,411	96.6 (96.2–97.1)	9,413	96.9 (96.4–97.4)
Unclear LGBTQ+ status	697	94.2 (92.1–95.9)	699	93.9 (92.0–95.5)
Mental health status				
Good to excellent	8,208	96.3 (95.9–96.7)	8,212	96.6 (96.2–97.0)
Fair	2,520	98.0 (97.3–98.5)	2,520	98.6 (97.9–99.0)
Poor	859	93.7 (91.6–95.4)	859	93.5 (91.4–95.2)
Rurality				
City	4,333	96.2 (95.5–96.9)	4,333	96.5 (95.6–97.2)
Suburban	5,973	96.7 (96.2–97.2)	5,976	97.0 (96.5–97.5)
Town or Rural	1,546	95.7 (94.7–96.5)	1,548	96.1 (94.9–97.0)

Table 5-6.Percentage of High School Respondents Who Believed That Adults Would FeelNegatively About Them Vaping and Smoking Cigarettes, by Demographic Characteristics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

5.5 Peer Disapproval of Vaping and Smoking

In addition to being asked about adults, respondents were asked to describe the views of "close friends and other respondents at your school" on using vapes. Response options included "very positive," "positive," "negative," and "very negative." The same questions were asked about smoking cigarettes.

Tables 5-7 and 5-8 present the percentage of respondents who believed that their peers would view vaping and smoking cigarettes negatively ("negative" or "very negative"). More respondents believed their friends would view smoking cigarettes negatively (83.0%) than would view vaping negatively (54.0%). Perceived negative views about vaping and cigarette smoking among peers were most commonly endorsed by respondents who had never vaped (56.3%) or never smoked (83.4%).

Table 5-7.Percentage of High School Respondents Who Believed That Close Friends and Other
Respondents at School Would View Vaping Negatively, by Vaping Status

	Negative views about vaping		
Use status	N	% (95% CI)	
Overall	11,846	54.0 (51.3–56.7)	
Vaping status			
Never	9,963	56.3 (53.5–59.1)	
Former	1,292	41.1 (37.7–44.5)	
Current	581	42.9 (37.5–48.5)	

Note. CI = Confidence interval

Table 5-8.Percentage of High School Respondents Who Believed That Close Friends and Other
Respondents at School Would View Smoking Negatively, by Cigarette-Smoking Status

	Negative views about cigarette smoking		
Use status	N	% (95% CI)	
Overall	11,851	83.0 (81.7–84.2)	
Cigarette-smoking status			
Never	11,229	83.4 (82.1–84.6)	
Former	481	79.2 (74.5–83.3)	
Current	134	67.2 (55.3–77.6)	

Note. CI = Confidence interval

Table 5-9 presents the perceived prevalence of peers' negative views of vaping and smoking by demographics. Respondents who identified as male reported the highest level of perceived negative peer views on vaping (60.9%) and cigarette smoking (85.0%) of all gender identities. Of all race/ethnicity categories, the largest percentage of Asian respondents reported the most
that their peers would feel negative about vaping (66.8%) and smoking (87.3%). A larger percentage of 10th-grade students reported negative peer views about vaping (56.1%) compared to 12th graders (51.7%). However, more 12th graders reported their peers would feel negatively about smoking cigarettes (83.8%) than 10th graders (82.2%). Respondents with unclear LGBTQ+ status had the highest endorsement of negative peer views on vaping (56.0%) out of all sexual orientations, and non-LGBTQ+ respondents had the highest endorsement of negative peer views on smoking (83.5%). Regarding mental health status, respondents with good to excellent mental health reported their peers viewed vaping (56.6%) and smoking (84.0%) negatively the most out of all categories of mental health. Respondents attending schools in cities endorsed peers' negative views about vaping (56.7%) the most out of all categories of school rurality, and those attending schools in suburban settings most commonly endorsed peers' negative views about smoking (83.6%).

	Negative	views about vaping	Negative	views about smoking
Characteristic	N	% (95% CI)	N	% (95% CI)
Overall	11,846	54.0 (51.3–56.7)	11,851	83.0 (81.7–84.2)
Gender identity				
Male	5,945	60.9 (58.1–63.6)	5,948	85.0 (83.4–86.5)
Female	5,446	47.3 (44.3–50.3)	5,448	81.5 (80.0–82.8)
Identified in another way	443	44.6 (38.9–50.5)	443	75.4 (70.2–80.1)
Race/ethnicity*				
White	2,055	51.9 (47.2–56.6)	2,060	85.2 (82.5–87.6)
African American or Black	566	50.9 (43.0–58.8)	565	77.6 (71.5–83.0)
Hispanic	6,773	51.9 (49.7–54.2)	6,774	81.5 (80.3–82.8)
Asian	1,339	66.8 (59.9–73.2)	1,338	87.3 (84.4–89.8)
Other	312	55.1 (47.0–63.1)	314	78.8 (72.1–84.5)
Multiracial	771	56.8 (51.1–62.4)	770	85.2 (81.9–88.2)
Grade				
10	6,286	56.1 (53.3–58.9)	6,292	82.2 (80.7–83.7)
12	5,560	51.7 (48.3–55.1)	5,559	83.8 (82.2–85.3)
LGBTQ+ status**				
LGBTQ+	1,685	47.2 (42.6–51.9)	1,686	80.7 (78.1–83.1)
Non-LGBTQ+	9,409	55.2 (52.5–57.8)	9,411	83.5 (82.1–84.9)
Unclear LGBTQ+ status	701	56.0 (50.9–61.0)	703	81.5 (78.0–84.6)
Mental health status				
Good to excellent	8,193	56.6 (53.8–59.4)	8,196	84.0 (82.6–85.4)

Table 5-9.Percentage of High School Respondents Who Believed That Close Friends or Other
Respondents Would Feel Negatively About Them Smoking Cigarettes, by Demographic
Characteristics

(continued)

	Negative	views about vaping	Negative v	views about smoking
Characteristic	N	% (95% CI)	N	% (95% CI)
Fair	2,503	47.3 (43.6–51.1)	2,503	81.7 (79.7–83.5)
Poor	852	47.2 (43.1–51.3)	853	76.3 (72.6–79.7)
Rurality				
City	4,336	56.7 (51.7–61.7)	4,340	82.6 (79.9–85.1)
Suburban	5,962	53.9 (50.4–57.4)	5,962	83.6 (81.9-85.2)
Town or rural	1,548	46.2 (42.0–50.3)	1,549	81.0 (78.0–83.8)

Table 5-10.Percentage of High School Respondents Who Believed That Close Friends or Other
Respondents Would Feel Negatively About Them Smoking Cigarettes, by Demographic
Characteristics (continued)

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

5.6 Summary

Overall, 42.9% of respondents who had never used vapes, cigarettes, and/or LCCs were susceptible to future use of one or more of these products. Susceptibility also varied by product and across demographics. Of the three products, respondents were most susceptible to vapes. Overall, peer use and individual susceptibility appeared to be positively correlated: susceptibility to both vaping and smoking cigarettes was substantially higher for respondents who had friends who vaped or smoked cigarettes some or all of the time, compared to none. The most-endorsed reason for vaping was "to relax or relieve stress and anxiety." Almost all respondents (at least 90%) believed important adults would feel negatively about both vaping and smoking, overall and across demographic categories. When asked about the beliefs of their peers, more than half of respondents reported that their peers would view vaping negatively and more than two-thirds reported that their peers viewed smoking cigarettes negatively. Adult and peer disapproval varied by demographics.

6. Attitudes About Ending the Tobacco Epidemic

As part of the survey, respondents were asked their opinions about several policies related to ending the tobacco epidemic.^a They were asked how much they disagreed or agreed with the following statements: (a) the sale of all tobacco products (e.g., cigarettes, cigars, chew, vapes) should end; (b) the sale of flavored tobacco (e.g., cigarettes, chew, cigars, and vapes that taste like mint, fruit, candy, or liquor) should end; (c) smoking cigarettes, little cigars, or cigarillos in all public places should end; and (d) using vapes in all public places should end. Response options were "strongly agree," "agree," "disagree," and "strongly disagree." Respondents were considered to be in support of these policies if they responded "disagree" or "strongly disagree."

Table 6-1a and Table 6-1b show responses to these items by vaping status and cigarettesmoking status. Overall, most respondents supported these policies. The highest support was for a public smoking ban (71.3%), closely followed by support for a public vaping ban (69.1%). Respondents were least supportive of a complete tobacco sales ban (60.7%), with a greater percentage of respondents supporting a flavor ban (66.9%). Support was highest among respondents who had never vaped or smoked, ranging from 64.0% to 74.2% among those who had never vaped and 62.2% to 72.7% among those who had never smoked cigarettes. Support was lowest among respondents who currently vaped or smoked, ranging from 34.9% to 45.9% among those who currently vaped and 28.8% to 41.9% among those who currently smoked cigarettes.

Support for tobacco endgame policies varied by demographics (Table 6-2a and 6-2b) but was generally high. Support for all four policies was highest among female respondents. Support for a complete tobacco sales ban, a public places smoking ban, and a public places vaping ban was lowest among respondents who identified their gender in another way (56.0%, 66.1%, and 67.7%, respectively). Support for a flavored tobacco sales ban was lowest among males (64.9%). Asian respondents reported the highest support for all four policies, and African American or Black respondents reported the least support. Support was higher among 10th-grade respondents than for 12th-grade respondents. Non-LGBTQ+ respondents reported the highest support for a smoking and vaping in public places. The flavored tobacco sales ban received a similar amount of support among respondents, regardless of their LGBTQ+ status. Participants with good to excellent mental health expressed the highest support for these policies, as did respondents attending schools in cities.

^a References to ending the tobacco epidemic in this report apply only to commercial tobacco use and not to tobacco used in ceremonies by certain American Indian Tribes.

	Support for complete tobacco sales ban ^a		Suj to	oport for flavored bacco sales ban ^b
Characteristic	N	% (95% CI)	N	% (95% CI)
Overall	12,093	60.7 (58.9–62.5)	12,074	66.9 (65.2–68.5)
Vaping status				
Never	10,169	64.0 (62.2–65.7)	10,152	70.2 (68.5–71.9)
Former	1,317	47.3 (44.1–50.5)	1,318	52.6 (49.3–55.9)
Current	597	34.9 (29.4–40.6)	594	40.3 (35.0–45.7)
Cigarette-smoking status				
Never	11,451	62.2 (60.6–63.9)	11,432	68.0 (66.4–69.6)
Former	495	36.0 (31.3–41.0)	496	47.9 (41.2–54.8)
Current	140	28.8 (18.8–40.6)	139	41.9 (30.6–53.9)

Table 6-1a.Agreement with Policies Related to Ending the Tobacco Epidemic among High School
Respondents, by Vaping Status and Cigarette-Smoking Status

Note. CI = Confidence interval

^a Responded "strongly agree" or "agree" to the statement "the sale of all tobacco products (e.g., cigarettes, cigars, chew, vapes) should end."

^b Responded "strongly agree" or "agree" to the statement "the sale of flavored tobacco (e.g., cigarettes, chew, cigars, and vapes that taste like mint, fruit, candy, or liquor) should end."

	Support for public smoking ban ^a		Suppor	t for public vaping ban ^b
Characteristic	N	% (95% CI)	N	% (95% CI)
Overall	12,061	71.3 (69.9–72.7)	12,067	69.1 (67.7–70.5)
Vaping status				
Never	10,143	74.2 (72.7–75.6)	10,145	73.1 (71.7–74.5)
Former	1,314	60.2 (57.2–63.3)	1,317	53.2 (49.7–56.7)
Current	595	45.9 (39.8–52.1)	596	35.3 (30.2–40.7)
Cigarette-smoking status				
Never	11,419	72.7 (71.4–74.0)	11,426	70.5 (69.2–71.9)
Former	495	50.5 (45.7–55.3)	495	48.4 (43.6–53.2)
Current	140	35.5 (27.1–44.7)	140	31.2 (20.8–43.2)

Table 6-1b.Agreement with Policies Related to Ending the Tobacco Epidemic among High SchoolRespondents, by Vaping Status and Cigarette-Smoking Status

Note. CI = Confidence interval

^a Responded "strongly agree" or "agree" to the statement "smoking cigarettes, little cigars, or cigarillos in all public places should end."

^b Responded "strongly agree" or "agree" to the statement "using vapes in all public places should end."

	Support for complete tobacco sales ban ^a		Support f	or flavored tobacco sales ban ^b
Characteristic	N	% (95% CI)	N	% (95% CI)
Overall	12,093	60.7 (58.9–62.5)	12,074	66.9 (65.2–68.5)
Gender identity				
Male	6,062	57.9 (55.8–59.9)	6,052	64.9 (63.0–66.7)
Female	5,563	64.3 (62.2–66.4)	5,554	69.0 (67.1–70.8)
Identified in another way	450	56.0 (49.0–62.8)	450	67.5 (60.6–74.0)
Race/ethnicity*				
White	2,100	54.5 (51.4–57.6)	2,096	65.7 (62.9–68.5)
African American or Black	584	54.0 (49.3–58.7)	582	58.6 (53.6–63.5)
Hispanic	6,909	62.3 (60.3–64.3)	6,898	66.2 (64.4–68.0)
Asian	1,353	68.9 (66.1–71.7)	1,352	76.4 (73.6–79.1)
Other	326	61.9 (55.0–68.5)	326	67.4 (61.2–73.1)
Multiracial	789	58.5 (53.8–63.2)	789	65.5 (61.6–69.2)
Grade				
10	6,435	62.9 (61.0–64.9)	6,422	68.4 (66.7–70.1)
12	5,658	58.3 (56.1–60.6)	5,652	65.1 (62.6–67.6)
LGBTQ+ status**				
LGBTQ+	1,723	55.6 (52.4–58.8)	1,720	66.5 (63.0–69.8)
Non-LGBTQ+	9,593	61.6 (59.7–63.4)	9,580	66.9 (65.2–68.5)
Unclear LGBTQ+ status	719	61.0 (56.9–65.1)	716	67.0 (63.0–70.8)
Mental health status				
Good to excellent	8,216	63.5 (61.4–65.5)	8,208	69.1 (67.4–70.8)
Fair	2,506	56.4 (53.7–59.1)	2,500	63.7 (60.8–66.5)
Poor	862	46.5 (42.1–50.9)	860	54.7 (50.6–58.7)
Rurality				
City	4,436	61.9 (59.0–64.7)	4,427	68.5 (65.5–71.4)
Suburban	6,079	60.6 (58.1–63.1)	6,071	66.7 (64.6–68.6)
Town or rural	1,578	57.9 (51.4–64.2)	1,576	62.7 (58.3–67.0)

Table 6-2a.Agreement with Policies Related to Ending the Tobacco Epidemic among High SchoolRespondents, by Demographic Characteristics

Note. LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning; CI = Confidence interval

^a Responded "strongly agree" or "agree" to the statement "The sale of all tobacco products (e.g., cigarettes, cigars, chew, vapes) should end."

^b Responded "strongly agree" or "agree" to the statement "The sale of flavored tobacco (e.g., cigarettes, chew, cigars, and vapes that taste like mint, fruit, candy, or liquor) should end."

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

	Support f	or public smoking ban ^a	Support	for public vaping ban ^b
Characteristic	N	% (95% CI)	N	% (95% CI)
Overall	12,061	71.3 (69.9–72.7)	12,067	69.1 (67.7–70.5)
Gender identity				
Male	6,047	67.9 (66.0–69.7)	6,046	68.1 (66.3–69.8)
Female	5,544	75.5 (74.0–77.0)	5,552	70.4 (68.7–72.0)
Identified in another way	452	66.1 (59.8–72.0)	451	67.7 (60.7–74.1)
Race/ethnicity*				
White	2,098	68.6 (65.5–71.7)	2,096	65.4 (62.9–67.9)
African American or Black	580	66.9 (62.7–70.9)	581	61.1 (55.7–66.4)
Hispanic	6,893	70.4 (68.9–71.9)	6,896	69.2 (67.7–70.6)
Asian	1,349	81.6 (79.2–83.8)	1,351	81.0 (78.6–83.3)
Other	325	70.1 (63.7–76.0)	326	68.2 (62.2–73.9)
Multiracial	784	72.7 (68.7–76.5)	785	66.9 (62.4–71.2)
Grade				
10	6,411	72.9 (71.4–74.4)	6,416	71.3 (69.6–72.9)
12	5,650	69.5 (67.5–71.5)	5,651	66.8 (64.7–68.8)
LGBTQ+ status**				
LGBTQ+	1,716	70.2 (67.2–73.1)	1,719	66.2 (63.3–69.1)
Non-LGBTQ+	9,569	71.7 (70.3–73.0)	9,572	69.8 (68.3–71.2)
Unclear LGBTQ+ status	719	68.9 (64.7–72.8)	718	66.9 (63.3–70.3)
Mental health status				
Good to excellent	8,198	73.3 (71.8–74.8)	8,201	71.6 (70.1–73.1)
Fair	2,498	69.9 (67.4–72.3)	2,503	66.2 (63.7–68.6)
Poor	860	59.4 (55.1–63.5)	860	57.3 (52.0–62.5)
Rurality				
City	4,417	72.3 (70.1–74.4)	4,426	71.0 (69.0–73.0)
Suburban	6,067	71.3 (69.3–73.2)	6,067	68.4 (66.5–70.2)
Town or rural	1,577	68.6 (64.7–72.2)	1,574	66.6 (62.1–70.9)

Table 6-2b.Agreement with Policies Related to Ending the Tobacco Epidemic among High SchoolRespondents, by Demographic Characteristics

Note. LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning; CI = Confidence interval

^a Responded "strongly agree" or "agree" to the statement "Smoking cigarettes, little cigars, or cigarillos in all public places should end."

- ^b Responded "strongly agree" or "agree" to the statement "Using vapes in all public places should end."
- * With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.
- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

6.1 Summary

About two-thirds of respondents supported policies related to ending the tobacco epidemic. Support was highest for a smoking ban in public places and lowest for a complete tobacco sales ban. Support varied by tobacco use status (highest among those who never vaped or smoked and lowest among those who currently vaped) and by demographics.

7. Cannabis Use

This chapter presents data on the prevalence of ever and current cannabis use across demographic characteristics, mode of cannabis use, and cannabis and tobacco co-use. Co-use is defined as reporting using cannabis in the past 30 days and reporting using one or more tobacco products in the past 30 days. Finally, this chapter presents data on secondhand exposure to cannabis smoke by demographics and how respondents acquired cannabis. Measuring cannabis use in the CYTS is important given high levels of cannabis use among respondents who use tobacco and the use of some tobacco products to consume cannabis (e.g., LCCs).

7.1 Cannabis Use

Table 7-1 presents the prevalence of ever and current cannabis use among high school respondents by demographic characteristics. Overall, current cannabis use (7.9%) was higher than current tobacco use (6.4%). Ever cannabis use (19.6%) was similar to ever tobacco use (19.8%).

		Ever use		Current use	
Characteristic	N	% (95% CI)	N	% (95% CI)	
Overall	12,511	19.6 (17.6–21.6)	12,506	7.9 (6.5–9.4)	
Gender identity					
Male	6,259	18.1 (16.1–20.2)	6,257	7.6 (6.2–9.3)	
Female	5,767	20.8 (18.5–23.2)	5,765	7.6 (6.2–9.3)	
Identified in another way	467	24.7 (19.3–30.9)	466	13.3 (9.0–18.6)	
Race/ethnicity*					
White	2,151	24.3 (19.0–30.3)	2,150	11.9 (8.1–16.7)	
African American or Black	609	22.0 (17.4–27.2)	609	9.0 (6.4–12.2)	
Hispanic	7,177	19.6 (17.7–21.6)	7,174	6.9 (6.0–7.8)	
Asian	1,382	8.2 (5.7–11.3)	1,381	2.0 (1.2–3.2)	
Other	338	13.2 (8.7–18.9)	338	8.1 (4.7–12.8)	
Multiracial	819	23.8 (20.1–27.7)	819	11.0 (8.4–14.1)	
Grade					
10	6,687	15.2 (13.2–17.5)	6,685	5.7 (4.4–7.2)	
12	5,824	24.3 (21.9–26.8)	5,821	10.3 (8.5–12.2)	
LGBTQ+ status**					
LGBTQ+	1,771	30.2 (26.7–33.9)	1,769	13.2 (10.2–16.8)	
				(continued)	

Table 7-1.	Prevalence of Cannabis Use among High School Respondents, by Demographic
	Characteristics

		Ever use		Current use
Characteristic	N	% (95% CI)	N	% (95% CI)
Non-LGBTQ+	9,931	18.0 (16.2–19.9)	9,928	7.0 (5.8–8.3)
Unclear LGBTQ+ status	747	15.7 (12.2–19.7)	747	7.2 (4.7–10.5)
Mental health status				
Good to excellent	8,309	16.4 (14.6–18.3)	8,305	6.3 (5.0–7.9)
Fair	2,540	24.5 (21.8–27.3)	2,540	9.7 (8.1–11.5)
Poor	872	30.9 (25.8–36.3)	871	13.8 (10.1–18.1)
Rurality				
City	4,591	17.2 (14.8–19.9)	4,589	6.9 (5.1–9.0)
Suburban	6,288	19.5 (17.1–22.0)	6,286	7.7 (6.1–9.7)
Town or rural	1,632	27.4 (18.2–38.2)	1,631	11.6† (5.2–21.4)

Table 7-1.Prevalence of Cannabis Use among High School Respondents, by Demographic
Characteristics (continued)

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

We observed differences in cannabis use by demographics. Ever and current use of cannabis was highest among respondents who identified their gender in another way (24.7% and 13.3%, respectively), compared to respondents who identified as male (18.1% and 7.6%, respectively) or female (20.8% and 7.6%, respectively). Ever and current cannabis use was highest among White respondents (24.3% and 11.9%, respectively) and lowest among Asian respondents (8.2% and 2.0%, respectively). Respondents in 12th grade reported higher ever and current use (24.3% and 10.3%, respectively) than 10th graders (15.2% and 5.7%, respectively). Use among LGBTQ+ respondents (30.2% ever, 13.2% current) was higher than among non-LGBTQ+ respondents (18.0% ever, 7.0% current) or respondents of unclear LGBTQ+ status (15.7% ever, 7.2% current). Prevalence of cannabis use was highest among respondents reporting poor mental health (30.9% ever, 13.8% current) and lowest among those with good to excellent mental health (16.4% ever, 6.3% current). Respondents attending schools in towns or rural

settings (27.4% ever, 11.6% current) reported higher use than those attending schools in suburban settings (19.5% ever, 7.7% current) or cities (17.2% ever, 6.9% current).

The CYTS included questions designed to determine methods of using cannabis. Respondents who reported ever using cannabis were asked how they had used it. Those who endorsed ever using more than one type of cannabis product were asked, "During the last 30 days, how did you usually use cannabis?" Table 7-2 presents the usual mode of cannabis use among these respondents. Smoking (48.9%) was the most common mode of use, followed by vaping (37.5%).

	Usual mode of use <i>N</i> = 977		
Mode of use	%	(95% CI)	
Smoked	48.9	(44.6–53.3)	
Ate	9.6	(6.8–13.1)	
Drank	0.9	(0.3–2.0)	
Dabbed	2.6	(1.7–3.9)	
Vaped	37.5	(32.7–42.5)	
Used in some other way	0.5	(0.1–1.3)	

Table 7-2.Usual Mode of Cannabis Use among High School Respondents Who Reported Currently
Using Multiple Cannabis Products

Note. CI = Confidence interval

7.2 Cannabis Use and Tobacco Co-use

Table 7-3 further categorizes current cannabis use into current co-use of cannabis and tobacco or current use of cannabis only. Overall, 4% of respondents reported using only cannabis, and 3.8% reported using both cannabis and tobacco. Respondents who identified their gender in another way had almost three times the prevalence of co-use of cannabis and tobacco (10.2%) than respondents identifying their gender as male (3.5%) or female (3.6%). Among racial/ethnic groups, White (6.2%) and multiracial (6.0%) respondents reported the highest co-use, while Asian respondents reported the lowest co-use (1.1%). Twelfth-grade respondents' rate of couse (5.2%) was double that of 10th-grade respondents (2.6%). LGBTQ+ respondents reported higher co-use (7.0%) than non-LGBTQ+ respondents (3.3%) and respondents of unclear LGBTQ+ status (4.1%). When examining co-use by mental health status, respondents reporting poor mental health had higher rates of co-use (7.5%) than those with fair (4.4%) or good to excellent (3.1%) mental health. Respondents attending schools in towns or rural settings (6.5%) reported higher co-use than attending schools in suburban areas (3.6%) or cities (3.4%).

			Co-use of cannabis and any
		Use of cannabis only	tobacco product
Characteristic	N	% (95% CI)	% (95% CI)
Overall	12,503	4.0 (3.2–4.9)	3.8 (3.2–4.6)
Gender identity			
Male	6,257	4.1 (3.2–5.1)	3.5 (2.8–4.4)
Female	5,762	4.0 (3.1–5.0)	3.6 (2.8–4.6)
Identified in another way	466	3.1 (1.6–5.5)	10.2 (6.7–14.6)
Race/ethnicity*			
White	2,149	5.7 (3.4–9.0)	6.2 (4.3–8.5)
African American or Black	609	4.5 (2.9–6.6)	4.5 (2.4–7.6)
Hispanic	7,173	3.8 (3.3–4.5)	3.0 (2.5–3.6)
Asian	1,380	0.9 (0.4–1.8)	1.1 (0.6–1.7)
Other	338	3.0+ (1.2–6.2)	5.0 (2.9-8.1)
Multiracial	819	5.0 (3.1–7.4)	6.0 (4.2-8.3)
Grade			
10	6,683	3.0 (2.2–4.0)	2.6 (2.0–3.5)
12	5,820	5.1 (4.1–6.2)	5.2 (4.1–6.4)
LGBTQ+ status**			
LGBTQ+	1,766	6.1 (4.5–8.0)	7.0 (5.0–9.5)
Non-LGBTQ+	9,928	3.7 (3.0–4.6)	3.3 (2.7–3.9)
Unclear LGBTQ+ status	747	3.1 (1.8–4.9)	4.1 (2.5–6.5)
Mental health status			
Good to excellent	8,303	3.2 (2.5–4.1)	3.1 (2.4–3.8)
Fair	2,540	5.3 (4.3–6.4)	4.4 (3.5–5.6)
Poor	871	6.2 (4.0–9.1)	7.5 (5.0–10.8)
Rurality			
City	4,588	3.4 (2.5–4.6)	3.4 (2.4–4.6)
Suburban	6,285	4.1 (3.1–5.4)	3.6 (2.9–4.4)
Town or rural	1,630	5.1† (2.3–9.6)	6.5 (3.6–10.7)

Table 7-3.Prevalence of Current Cannabis-Only Use and Current Co-use of Cannabis and Any
Tobacco Product among High School Respondents, by Demographic Characteristics

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status. ⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Table 7-4 presents the prevalence of co-use cannabis and tobacco by tobacco product. Among respondents currently using cannabis, 41.3% reported currently vaping, 12.0% reported currently smoking cigarettes, 4.7% reported currently smoking LCCs, and 10.5% reported currently using nicotine pouches.

Table 7-4.	Prevalence of Current Co-use of Cannabis and Tobacco among High School Respondents
	Currently Using Cannabis, by Tobacco Product Currently Used

	Co-use of cannabis and tobacco <i>N</i> = 977
Tobacco product	% (95% CI)
Vapes	41.3 (37.3–45.4)
Cigarettes	12.0 (8.4–16.6)
LCCs	4.7 (3.0–6.9)
Nicotine pouches	10.5 (8.1–13.4)

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos

7.2.1 Exposure to Secondhand Cannabis Smoke in Last 2 Weeks

The 2024 CYTS asked about high school respondents' exposure to secondhand cannabis smoke in a car or room in the last 2 weeks. The survey also asked about exposure to cannabis smoke outside, which includes being near someone who was smoking cannabis outside of a restaurant, outside of a store, on a sidewalk, or at a park, playground, or beach in the last 2 weeks.

Table 7-5 presents exposure to secondhand cannabis smoke by race/ethnicity. Overall, exposure to cannabis smoke outside (31.8%) was higher than exposure in a car or room (17.9%). When examining exposure by race/ethnicity, exposure in both settings was highest among White respondents (24.7% inside and 34.6% outside) and lowest among Asian respondents (8.0% inside and 23.4% outside).

Table 7-6 presents data on secondhand exposure to cannabis smoke in a car or room by race/ethnicity and cannabis use status. Overall, exposure to cannabis smoke in a car or room was highest among respondents who were currently using cannabis (74.6%), followed by those who had formerly (35.2%) and never used cannabis (9.8%). This pattern was consistent among racial/ethnic groups, where estimates were available.

	Exposu	ire in car or room	Exposure outside			
Characteristic	N	% (95% CI)	N	% (95% CI)		
Overall	12,491	17.9 (15.9–20.0)	12,393	31.8 (29.1–34.6)		
Race/ethnicity*						
White	2,152	24.7 (19.5–30.5)	2,131	34.6 (27.9–41.7)		
African American or Black	609	21.7 (17.6–26.3)	599	31.3 (26.0–37.1)		
Hispanic	7,158	16.2 (14.6–18.0)	7,111	32.8 (30.2–35.5)		
Asian	1,379	8.0 (6.4–9.9)	1,369	23.4 (19.0–28.2)		
Other	337	14.8 (9.9–20.9)	334	26.2 (21.1–31.9)		
Multiracial	822	23.0 (19.0–27.4)	815	33.3 (28.2–38.7)		

Table 7-5. Prevalence of Last-2-Week Exposure to Cannabis Smoke in Car or Room or Outside among High School Respondents, by Race/Ethnicity

Note. CI = Confidence interval

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

		Never use		Former use		Current use		
Characteristic	N	% (95% CI)	N	N % (95% CI)		% (95% CI)		
Overall	10,019	9.8 (8.7–10.9)	1,474	35.2 (31.9–38.7)	973	74.6 (70.9–78.0)		
Race/ethnicity*								
White	1,620	14.3 (11.8–17.1)	269	38.0 (29.6–46.9)	258	76.9 (68.1–84.2)		
African American or Black	455	11.3 (7.5–16.3)	89	49.9† (32.4–67.5)	63			
Hispanic	5,733	8.9 (7.9–9.8)	909	32.3 (28.5–36.4)	503	72.7 (67.3–77.7)		
Asian	1,263	6.0 (4.6–7.6)	85	24.1 (13.1–38.3)	29			
Other	293	6.5† (3.1–11.8)	19		25			
Multiracial	625	11.2 (7.8–15.5)	102	41.7 (30.0–54.1)	92	81.2 (69.6–89.8)		

Table 7-6.Prevalence of Last-2-Week Exposure to Cannabis Smoke in Car or Room among High
School Respondents, by Race/Ethnicity and Cannabis Use Status

Note. CI = Confidence interval

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Table 7-7 presents data on secondhand exposure to cannabis smoke outside in the last 2 weeks by race/ethnicity and cannabis use status. As with exposure in a car or room, exposure to cannabis smoke outside was highest among respondents who currently used cannabis (67.6%) followed by those who had formerly used (46.4%) and never used it (26.3%). This pattern by use status was consistent across racial/ethnic categories where estimates were available.

		Never use		Former use	Current use		
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	
Overall	9,960	26.3 (24.1–28.5)	1,452	46.4 (41.7–51.1)	958	67.6 (63.0–71.9)	
Race/ethnicity*							
White	1,608	26.6 (22.8–30.6)	267	46.9 (35.9–58.1)	252	73.2 (61.7–82.8)	
African American or Black	449	24.5 (19.2–30.3)	85	50.2† (34.0–66.4)	63	63.6† (45.3–79.5)	
Hispanic	5,710	27.9 (25.3–30.6)	896	47.1 (42.5–51.7)	493	64.5 (60.5–68.3)	
Asian	1,254	21.3 (16.9–26.3)	84	40.0 (27.6–53.4)	29		
Other	291	20.0 (14.3–26.9)	18		25		
Multiracial	619	26.9 (22.1–32.2)	101	39.5 (27.9–52.0)	92	69.0 (58.4–78.2)	

Table 7-7.Prevalence of Last-2-Week Exposure to Cannabis Smoke Outside among High School
Respondents, by Race/Ethnicity and Cannabis Use Status

Note. CI = Confidence interval

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

7.3 Acquisition of Cannabis

Table 7-8 presents how respondents who were currently using cannabis reported acquiring cannabis. The most-reported method was buying it themselves (39.8%), followed by someone giving it to them (26.4%). Of those who reported buying it themselves, the most common purchasing sources were from another person (43.1%) and a store or dispensary (37.2%).

	Overall
Method	% (95% CI)
I buy it myself*	39.8 (36.3–43.4)
From someone	43.1 (36.3–50.2)
From a store or dispensary	37.2 (30.6–44.1)
From a delivery service	8.1 (5.5–11.3)
Some other way	5.9 (3.4–9.3)
On the internet (including apps)	5.7† (2.3–11.6)
Someone gives it to me	26.4 (22.3–31.0)
I ask someone to buy it for me	13.4 (11.1–16.1)
I ask someone for it	8.3 (6.3–10.8)
I get it some other way	6.6 (4.6–9.1)
l grow my own	2.8 (1.8–4.2)
I take it from someone	2.5 (1.5–3.9)

Table 7-8.Method of Acquiring Cannabis among High School Respondents Currently Using
Cannabis

Note. CI = Confidence interval

* Numbers below this row represent the percentage of respondents endorsing each location among those who reported buying their own cannabis.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

7.4 Summary

The prevalence of current cannabis use was higher than current tobacco use, but ever cannabis use and ever tobacco use estimates were similar. Ever and current cannabis use varied across all demographics. Smoking was the most common mode of using cannabis, followed by vaping. Co-use of cannabis and tobacco was almost as common as cannabis-only use and varied by demographic. Co-use was highest among respondents who identified their gender in another way, were White or multiracial, were in 12th grade, were LGBTQ+, reported poor mental health status, and attended schools in towns or rural settings. Vapes were the tobacco product most used by respondents who were co-using cannabis and tobacco.

Secondhand exposure to cannabis smoke was higher outdoors than indoors. Exposure both indoors and outdoors varied by race/ethnicity and cannabis use status. The most common methods of acquiring cannabis were buying it, and, among those who bought it, the most common sources were from someone else or a store or dispensary.

8. Comparisons of Tobacco and Cannabis Use: 2022, 2023, and 2024

This chapter compares the prevalence of current tobacco use for high school students in the CYTS between 2022 and 2024. When making comparisons, the reader should note that the 2022 CYTS had fewer responding students than expected due to COVID-19. Because the sample sizes were smaller in 2022 than in 2023 or 2024, the 2022 estimates tend to be less precise. This lower precision resulted in larger confidence intervals, which reflect a larger range of possible values for each estimate. As a result, some confidence intervals for 2022 estimates may be wider than the confidence intervals for 2023 or 2024 due to the differences in sample size. In addition, the number of schools and students in the 2023 CYTS was much larger than that of the 2022 or 2024 CYTS. This is because, although the 2023 CYTS was designed to yield both state- and county-level estimates, the 2022 and 2024 CYTS were designed to yield only state-level estimates. There were no changes in question wording or other aspects of the instrument that would affect the ability to compare responses to the survey items included in this chapter between 2022, 2023, and 2024.

The following sections describe only the statistically significant changes (p < 0.05) observed between years. Adjusted Wald F-tests were used to test for changes.

8.1 Tobacco Product Use Between Years

We examined the prevalence of ever (Table 8-1a) and current (Table 8-1b) use for any tobacco use and all tobacco products captured in the survey between 2022 and 2024. Ever use of vapes decreased from 18.3% in 2023 to 16.0% in 2024. Ever use of HTPs and nicotine pouches increased (0.9% to 1.3% and 2.4% to 3.6%, respectively) between 2022 and 2024.

For current use, there was a significant increase in current hookah use, from 0.4% in 2022 to 0.7% in 2023. There was also a significant increase in nicotine pouch use from 0.6% in 2022 to 1.4% in 2024.

			E۱	ver use			
	2022 N = 8,909		N	2023 = 30,966	2024 N = 12,535		
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)	
Any tobacco use	20.3	(18.5–22.2)	21.6	(20.3–23.0)	19.8	(18.4–21.2)	
Vapes	17.6	(15.9–19.4)	18.3	(17.2–19.5)	16.0	(14.8–17.3) ²	
Cigarettes	5.3	(4.3–6.6)	5.6	(4.9–6.5)	5.5	(4.7–6.4)	
LCCs	2.1	(1.7–2.6)	2.3	(2.0–2.6)	2.0	(1.6–2.4)	
Cigars	3.1	(2.4–3.9)	3.3	(2.9–3.7)	2.9	(2.4–3.5)	
Hookah	2.2	(1.8–2.6)	2.5	(2.0–3.0)	2.2	(1.8–2.6)	
Smokeless	1.3	(0.9–1.8)	1.5	(1.3–1.7)	1.3	(1.1–1.6)	
HTPs	0.9	(0.6–1.2)	1.2	(1.0–1.4)	1.3	(1.1–1.6) ¹	
Nicotine pouches	2.4	(1.9–2.9)	3.1	(2.7–3.5) ¹	3.6	(2.9–4.4) ¹	

Table 8-1a. Prevalence of Ever Tobacco Product Use by Year among High School Respondents

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

¹ Significantly different from 2022 (p < 0.05).

² Significantly different from 2023 (p < 0.05).

Table 8-1b. Prevalence of Current Tobacco Product Use by Year among High School Respondents

			Cur	rent use		
	N	2022 = 8,909	N	2023 = 30,966	2024 N = 12,535	
Tobacco product	%	(95% CI)	%	(95% CI)	%	(95% CI)
Any tobacco use	6.6	(5.4–8.1)	7.3	(6.6–8.1)	6.4	(5.6–7.4)
Vapes	5.6	(4.5–6.9)	5.9	(5.3–6.5)	5.0	(4.3–5.7)
Cigarettes	1.2	(0.7–2.0)	1.2	(0.9–1.5)	1.3	(0.9–1.8)
LCCs	0.6	(0.4–0.8)	0.6	(0.5–0.8)	0.4	(0.3–0.6)
Cigars	0.6	(0.4–0.8)	0.8	(0.7–1.0)	0.7	(0.5–0.9)
Hookah	0.4	(0.3–0.6)	0.7	(0.5–1.0) ¹	0.5	(0.4–0.7)
Smokeless	0.3	(0.2–0.5)	0.5	(0.4–0.7)	0.4	(0.3–0.6)
HTPs	0.3	(0.2–0.5)	0.5	(0.3–0.7)	0.5	(0.3–0.7)
Nicotine pouches	0.6	(0.4–0.9)	1.1	(0.9–1.3) ¹	1.4	(1.1–1.8) ¹

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products ¹ Significantly different from 2022 (p < 0.05).

8.2 Flavored Tobacco Product Use Between Years

Table 8-2 presents the prevalence of flavored tobacco use among high school respondents who reported currently using each tobacco product. For cigarettes, flavored use refers to using menthol cigarettes in the last 30 days. For all other products, flavored use refers to using a

flavor other than tobacco or unflavored as the most-used flavor. The survey asked questions about flavored tobacco use for all products except nicotine pouches. There were no significant changes in flavored use of tobacco overall or for any specific product between 2022 and 2024. However, it was not possible to compare flavored use of smokeless tobacco or HTPs across all 3 years due to small sample sizes. Some estimates were also imprecise.

	Flavored product use									
		2022		2023		2024				
Tobacco product	N	% (95% CI)	N	% (95% CI)	N	%	(95% CI)			
Any of the below*	619	86.3 (82.4–89.7)	2,463	85.6 (82.6–88.3)	738	84.5	(80.5–87.9)			
Vapes	529	91.7 (88.9–94.0)	2,070	89.1 (85.8–91.9)	626	89.5	(86.5–92.0)			
Cigarettes**	124	32.1 (19.5–46.9)	457	45.0 (36.2–54.0)	146	34.5	(25.4–44.4)			
LCCs	55	55.2 (40.4–69.5)	232	50.1 (37.9–62.3)	53	43.9	(30.1–58.5)			
Cigars	53	37.0† (22.7–53.2)	294	49.9 (38.4–61.4)	72	41.0†	(26.3–57.0)			
Hookah	47	76.9† (59.3–89.5)	195	77.2 (61.6–88.8)	69	75.6	(60.3–87.3)			
Smokeless	35		178	66.1 (51.4–78.9)	48	73.9	(58.3–86.1)			
HTPs	32		140	75.2 (60.5–86.6)	59	_	_			

Table 8-2.Prevalence of Flavored Tobacco Product Use by Year among High School Students Who
Were Currently Using Each Product

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

* Includes use of vapes, cigarettes, LCCs, cigars, hookah, smokeless tobacco, and/or HTPs.

** Menthol was the only available flavor for cigarettes.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Additional analyses were conducted to determine whether changes in flavored tobacco use occurred over time by demographics. The only significant change over time was for any flavored tobacco use among males. Any flavored tobacco use decreased significantly between 2022 (88.3%) and both 2023 (81.5%) and 2024 (80.8%), among males (both p < 0.05).

8.3 Current Tobacco Use by Demographic Characteristics, Between Years

We examined changes in prevalence of current any tobacco use by year and demographic. The only significant change was a decrease in current any tobacco use by Hispanic respondents, from 6.3% in 2023 to 5.1% in 2024.

We also examined changes over time for current use of specific products by demographic and found the following significant changes:

- Current vaping decreased among Hispanic respondents (5.1% in 2023 to 4.1% in 2024). Cigarette smoking increased for respondents who identified their gender in another way (3.6% in 2022 to 8.0% in 2024), reported being some other race (0.1% in 2022 to 2.8% in 2024), and had unclear LGBTQ+ status (1.1% in 2023 to 2.6% in 2024). Between 2023 and 2024, current LCC use significantly decreased among Hispanic (0.7% to 0.4%), Asian (0.4% to 0.0%), and 10th-grade (0.6% to 0.3%) respondents.
- Cigar smoking increased from 2022 to 2024 among respondents who identified their gender in another way (1.4% to 5.7%) and were attending schools located in cities (0.5% to 1.0%).
- Cigar smoking significantly decreased among respondents attending schools in town or rural settings between 2023 and 2024 (1.3% to 0.6%).
- Hookah smoking increased between 2022 and 2024 among Asian respondents (0.0% to 0.2%) and respondents of unclear LGBTQ+ status (0.2% to 1.2%).
- Smokeless tobacco use decreased from 2023 to 2024 among Asian respondents
 (0.5% to 0.1%) and respondents attending schools in towns or rural settings (1.1% to
 0.4%). Current HTP use among non-LGBTQ+ respondents significantly increased
 between 2022 (0.1%) and 2024 (0.3%).Nicotine pouch use significantly increased
 between 2022 and 2024 for males (0.6% to 1.8%) and respondents who identified
 their gender in another way (1.9% to 4.7%); White (0.7% to 3.4%) and Asian (0.1% to
 0.7%) respondents; 10th (0.5% to 0.9%) and 12th (0.7% to 1.9%) graders; non LGBTQ+ respondents (0.5% to 1.4%); respondents with good to excellent (0.7% to
 1.3%), fair (0.3% to 1.2%), and poor (0.7% to 2.1%) mental health; and respondents
 attending schools in cities 0.6% to 1.5%) and suburban settings (0.5% to 1.3%).

8.4 Cannabis Use and Cannabis/Tobacco Co-use Between Years

Significant changes occurred in ever (Table 8-3a) and current (8-3b) cannabis use over time. Both ever and current cannabis use significantly decreased between 2023 and 2024 (from 23.0% to 19.6% and 10.4% to 7.9%, respectively). Current use of cannabis also significantly decreased between 2023 and 2024 among respondents in the following subgroups: female respondents (10.6% to 7.6%), African American or Black (18.1% to 9.0%) and Hispanic (8.9% to 6.9%) respondents, 12th graders (14.0% to 10.3%), LGBTQ+ (18.0% to 13.2%) and non-LGBTQ+ (8.9% to 7.0%) respondents, respondents with mental health that was good to excellent (8.4% to 6.3%) or poor (18.3% to 13.8%), and respondents attending schools in cities (10.1% to 6.9%) and suburban (10.3% to 7.7%) settings. Respondents who identified as some other race had an increase in cannabis use from 3.3% in 2022 to 8.1% in 2024.

					Eve	er use			
		2	022		20	23		202	4
Characteristic	N	%	(95% CI)	N	%	(95% CI)	N	%	(95% CI)
Overall	8,904	21.4	(19.0–23.8)	30,928	23.0	(21.7–24.4)	12,511	19.6	(17.6–21.6) ²
Gender identity									
Male	3,949	19.7	(17.2–22.3)	13,742	20.9	(19.1–22.7)	6,259	18.1	(16.1–20.1) ²
Female	3,840	21.4	(18.5–24.5)	13,513	24.2	(22.8–25.7)	5,767	20.8	(18.5–23.2) ²
ldentified in another way	532	26.9	(21.5–32.9)	1,764	27.7	(23.7–32.0)	467	24.7	(19.2–30.9)
Race/ethnicity*									
White	1,934	25.5	(20.0–31.6)	7,377	29.2	(27.1–31.4)	2,151	24.3	(19.0–30.2)
African American or Black	396	26.2	(20.0–33.2)	687	30.8	(25.8–36.3)	609	22.0	(17.3–27.3) ²
Hispanic	5,011	21.2	(19.5–22.9)	16,672	21.9	(20.5–23.3)	7,177	19.6	(17.7–21.6)
Asian	705	13.2	(8.6–19.1)	3,171	9.0	(7.2–11.1)	1,382	8.2	(5.7–11.3)
Other	231	14.0	(9.2–20.2)	785	17.3	(13.7–21.3)	338	13.2	(8.7–18.9)
Multiracial	616	21.4	(17.1–26.2)	2,166	29.2	(26.2–32.2) ¹	819	23.8	(20.2–27.7) ²
Grade									
10	4,999	16.5	(14.5–18.8)	16,229	17.7	(16.2–19.2)	6,687	15.2	(13.2–17.4)
12	3,905	26.7	(23.4–30.3)	14,699	28.9	(27.0–31.0)	5,824	24.3	(21.9–26.8) ²
LGBTQ+ status**									
LGBTQ+	1,513	31.0	(27.2–35.1)	5,141	34.6	(32.0–37.3)	1,771	30.2	(26.7–33.8) ²
Non-LGBTQ+	6,083	18.8	(16.6–21.1)	21,334	21.0	(19.7–22.4)	9,931	18.0	(16.2–19.9) ²
Unclear LGBTQ+ status	679	18.0	(14.8–21.7)	2,401	15.2	(12.8–18.0)	747	15.7	(12.2–19.7)
Mental health status									
Good to excellent	5,429	17.4	(15.0–20.0)	19,132	19.5	(18.1–20.9)	8,309	16.4	(14.6–18.3) ²
Fair	2,011	24.0	(21.1–27.0)	7,146	26.8	(24.7–29.0)	2,540	24.5	(21.8–27.3)
Poor	1,017	34.7	(31.2–38.3)	3,101	34.4	(30.2–38.7)	872	30.9	(25.9–36.3)
Rurality									
City	4,175	21.2	(18.2–24.5)	11,624	22.4	(20.1–24.8)	4,591	17.2	(14.8–19.9) ^{1,2}
Suburban	3,852	20.7	(17.0–24.8)	12,834	22.4	(20.2–24.8)	6,288	19.5	(17.1–22.0)
Town or rural	877	25.1	(14.0–39.3)	6,470	26.2	(23.3–29.3)	1,632	27.4	(18.2–38.1)

Table 8-3a.	Prevalence of Ever Cannabis Use by Year and by Demographic Characteristics among
	High School Respondents

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

¹ Significantly different from 2022 (p < 0.05).

²Significantly different from 2023 (p < 0.05).

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

 The estimate has been suppressed due to small sample sizes, specifically, a nominal or effective sample size less than 30. For definitions of nominal and effective sample size, see Appendix A.

					Curr	ent use			
		202	2		20	23		2024	
Characteristic	N	%	(95% CI)	N	%	(95% CI)	N	%	(95% CI)
Overall	8,900	8.8	(7.2–10.5)	30,920	10.4	(9.4–11.5)	12,506	7.9	(6.5–9.4) ²
Gender identity									
Male	3,949	8.3	(6.7–10.1)	13,739	9.3	(8.3–10.5)	6,257	7.6	(6.2–9.3)
Female	3,836	7.4	(5.8–9.3)	13,509	10.6	(9.3–12.1) ¹	5,765	7.6	(6.2–9.3) ²
Identified in another way	532	13.2	(9.9–17.0)	1,764	14.1	(11.3–17.3)	466	13.3	(9.0–18.6)
Race/ethnicity*									
White	1,932	13.5	(9.9–17.9)	7,375	14.9	(13.3–16.5)	2,150	11.9	(8.1–16.7)
African American or Black	396	10.0	(6.3–14.8)	687	18.1	(13.2–23.8) ¹	609	9.0	(6.4–12.2) ²
Hispanic	5,009	7.5	(6.4–8.7)	16,667	8.9	(7.8–10.0)	7,174	6.9	(6.0–7.8) ²
Asian	705	4.1	(2.2–6.9)	3,171	3.4	(2.4–4.5)	1,381	2.0	(1.2–3.2)
Other	231	3.3	(1.6–6.0)	785	9.2	(6.6–12.2) ¹	338	8.1	(4.7–12.7) ¹
Multiracial	616	11.0	(8.1–14.4)	2,165	13.9	(11.7–16.3)	819	11.0	(8.4–14.0)
Grade									
10	4,997	5.9	(4.6–7.4)	16,226	7.2	(6.3–8.2)	6,685	5.7	(4.4–7.2)
12	3,903	12.0	(9.8–14.6)	14,694	14.0	(12.4–15.6)	5,821	10.3	(8.6–12.2) ²
LGBTQ+ status**									
LGBTQ+	1,512	15.2	(12.1–18.7)	5,140	18.0	(15.8–20.4)	1,769	13.2	(10.2–16.7) ²
Non-LGBTQ+	6,081	6.6	(5.2–8.2)	21,329	8.9	(7.9–10.0) ¹	9,928	7.0	(5.8–8.3) ²
Unclear LGBTQ+ status	678	7.5	(5.4–10.1)	2,401	6.4	(5.0–8.0)	747	7.2	(4.7–10.4)
Mental health status									
Good to excellent	5,427	6.4	(5.0–8.2)	19,130	8.4	(7.1–9.7)	8,305	6.3	(5.0–7.8)²
Fair	2,009	9.4	(7.4–11.7)	7,143	11.6	(10.1–13.4)	2,540	9.7	(8.1–11.5)
Poor	1,017	16.3	(13.5–19.4)	3,099	18.3	(15.9–21.0)	871	13.8	(10.2–18.0) ²

Table 8-3b.Prevalence of Current Cannabis Use by Year and by Demographic Characteristics among
High School Respondents

(continued)

					Curre	ent use			
		202	22		202	23		2024	ŀ
Characteristic	N	%	(95% CI)	N	%	(95% CI)	N	%	(95% CI)
Rurality									
City	4,175	8.3	(6.3–10.6)	11,622	10.1	(8.5–11.9)	4,589	6.9	(5.1–9.0) ²
Suburban	3,849	8.9	(6.5–12.0)	12,829	10.3	(8.6–12.3)	6,286	7.7	(6.1–9.7) ²
Town or rural	876	10.4†	(4.7–19.2)	6,469	11.3	(9.5–13.4)	1,631	11.6†	(5.2–21.3)

Table 8-3b.Prevalence of Current Cannabis Use by Year and by Demographic Characteristics among
High School Respondents (continued)

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

¹ Significantly different from 2022 (p < 0.05).

² Significantly different from 2023 (p < 0.05).

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Tables 8-4a and 8-4b present cannabis-only use and cannabis co-use over time. Overall, cannabis-only use significantly decreased from 5.5% in 2023 to 4.0% in 2024 and cannabis and tobacco co-use significantly decreased from 4.9% in 2023 to 3.8% in 2024. There were a few changes by demographics between 2023 and 2024. Cannabis-only use significantly decreased from 5.9% to 4.0% among female respondents, from 10.7% to 4.5% among African American or Black respondents, from 7.4% to 5.1% among 12th graders, from 9.7% to 6.1% among LGBTQ+ respondents, from 4.6% to 3.2% among respondents reporting good to excellent mental health status, and from 5.4% to 3.4% among respondents in city settings. Use of cannabis only significantly decreased among respondents who identified their gender in another way from 6.1% in 2022 to 3.1% in 2024. Between 2023 and 2024, co-use of cannabis significantly decreased overall (4.9% to 3.8%), among Hispanic (4.1% to 3.0%) respondents, and among non-LGBTQ+ (4.2% to 3.3%) respondents.

	Use of cannabis only								
	2022			2023			2024		
Characteristic	N	%	(95% CI)	Ν	%	(95% CI)	Ν	%	(95% CI)
Overall	8,899	4.5	(3.8–5.4)	30,914	5.5	(4.8–6.1)	12,503	4.0	(3.2–4.9) ²
Gender identity									
Male	3,948	4.4	(3.7–5.3)	13,737	4.9	(4.2–5.7)	6,257	4.1	(3.2–5.1)
Female	3,836	4.0	(3.1–5.1)	13,507	5.9	(5.0–6.9) ¹	5,762	4.0	(3.1–5.0) ²
Identified in another way	532	6.1	(4.3–8.5)	1,762	5.0	(3.4–7.1)	466	3.1	(1.6–5.5) ¹
Race/ethnicity*									
White	1,932	6.5	(4.9–8.5)	7,375	7.7	(6.7–8.8)	2,149	5.7	(3.4–8.9)
African American or Black	395	6.1	(3.5–9.8)	686	10.7	(7.5–14.7) ¹	609	4.5	(2.9–6.6) ²
Hispanic	5,009	4.1	(3.4–4.8)	16,664	4.7	(4.0–5.4)	7,173	3.8	(3.3–4.5)
Asian	705	2.0	(0.9–3.8)	3,171	1.6	(1.0–2.4)	1,380	0.9	(0.4–1.8)
Other	231	1.1	(0.2–3.3)	785	3.7	(2.0–6.0) ¹	338	3.0	(1.2–6.2)
Multiracial	616	5.8	(3.9–8.4)	2,163	7.1	(5.4–9.0)	819	5.0	(3.1–7.4)
Grade									
10	4,996	2.8	(2.2–3.5)	16,226	3.7	(3.0–4.6) ¹	6,683	3.0	(2.2–4.0)
12	3,903	6.5	(5.3–7.9)	14,688	7.4	(6.6–8.2)	5,820	5.1	(4.1–6.2) ²
LGBTQ+ status**									
LGBTQ+	1,512	7.6	(6.0–9.5)	5,139	9.7	(7.8–11.9)	1,766	6.1	(4.5–8.0) ²
Non-LGBTQ+	6,080	3.6	(2.8–4.5)	21,325	4.6	(4.1–5.3) ¹	9,928	3.7	(3.0–4.6)
Unclear LGBTQ+ status	678	4.1	(2.5–6.5)	2,400	3.0	(2.1–4.2)	747	3.1	(1.8–4.9)
Mental health status									
Good to excellent	5,427	3.4	(2.6–4.4)	19,126	4.6	(3.8–5.5) ¹	8,303	3.2	(2.5–4.1) ²
Fair	2,009	5.1	(4.1–6.4)	7,142	6.4	(5.5–7.4)	2,540	5.3	(4.3–6.4)
Poor	1,016	8.1	(6.2–10.5)	3,098	7.7	(6.2–9.5)	871	6.2	(4.1–9.1)
Rurality									
City	4,174	4.0	(3.1–5.0)	11,618	5.4	(4.3–6.7)	4,588	3.4	(2.5–4.7) ²
Suburban	3,849	5.1	(3.8–6.6)	12,827	5.6	(4.6–6.7)	6,285	4.1	(3.1–5.5)
Town or rural	876	4.4	(2.5–7.3)	6,469	5.2	(4.3–6.4)	1,630	5.1†	(2.0–10.5)

Table 8-4a.	Prevalence of Current Cannabis-Only Use by Year and by Demographic Characteristics
	among High School Respondents

Note. LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning. CI = Confidence interval

¹ Significantly different from 2022 (p < 0.05).

² Significantly different from 2023 (p < 0.05).

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

- ** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.
- ⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

	Co-use of cannabis and any tobacco product								
		202	2		202	3		2024	
Characteristic	N	%	(95% CI)	N	%	(95% CI)	N	%	(95% CI)
Overall	8,899	4.2	(3.3–5.4)	30,914	4.9	(4.3–5.5)	12,503	3.8	(3.2–4.6) ²
Gender identity									
Male	3,948	3.9	(2.8–5.1)	13,737	4.4	(3.7–5.1)	6,257	3.5	(2.8–4.4)
Female	3,836	3.4	(2.4–4.7)	13,507	4.6	(3.9–5.4)	5,762	3.6	(2.8–4.6)
ldentified in another way	532	7.0	(4.4–10.5)	1,762	9.0	(6.6–11.9)	466	10.2	(6.7–14.6)
Race/ethnicity*									
White	1,932	7.0	(4.7–10.0)	7,375	7.2	(6.1–8.3)	2,149	6.2	(4.3–8.5)
African American or Black	395	3.8	(2.1–6.4)	686	6.5	(4.1–9.5)	609	4.5	(2.4–7.6)
Hispanic	5,009	3.5	(2.7–4.4)	16,664	4.1	(3.5–4.9)	7,173	3.0	(2.5–3.6) ²
Asian	705	2.1	(0.8–4.4)	3,171	1.7	(1.1–2.6)	1,380	1.1	(0.6–1.7)
Other	231	2.2	(0.8–4.8)	785	5.5	(3.1–8.9) ¹	338	5.0	(2.9–8.1)
Multiracial	616	5.1	(2.9–8.4)	2,163	6.6	(5.0–8.6)	819	6.0	(4.3–8.2)
Grade									
10	4,996	3.1	(2.2–4.2)	16,226	3.5	(2.9–4.1)	6,683	2.6	(2.0–3.4)
12	3,903	5.5	(4.1–7.2)	14,688	6.4	(5.5–7.5)	5,820	5.2	(4.1–6.4)
LGBTQ+ status**									
LGBTQ+	1,512	7.6	(5.4–10.3)	5,139	8.3	(6.7–10.1)	1,766	7.0	(5.0–9.5)
Non-LGBTQ+	6,080	3.0	(2.2–4.0)	21,325	4.2	(3.6–4.8) ¹	9,928	3.3	(2.7–3.9) ²
Unclear LGBTQ+ status	678	3.4	(2.1–5.2)	2,400	3.4	(2.4–4.6)	747	4.1	(2.5–6.5)
Mental health status									
Good to excellent	5,427	3.0	(2.2–4.1)	19,126	3.7	(3.1–4.3)	8,303	3.1	(2.4–3.8)
Fair	2,009	4.3	(2.9–6.0)	7,142	5.2	(4.0–6.6)	2,540	4.4	(3.5–5.6)
Poor	1,016	8.2	(5.9–10.9)	3,098	10.5	(8.7–12.6)	871	7.5	(5.0–10.8)

Table 8-4b.Prevalence of Current Cannabis Co-use by Year and by Demographic Characteristics
among High School Respondents

(continued)

	Co-use of cannabis and any tobacco product							
	2022			2023	2024			
Characteristic	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)		
Rurality								
City	4,174	4.3 (2.9–6.1)	11,618	4.6 (3.8–5.5)	4,588	3.4 (2.4–4.6)		
Suburban	3,849	3.8 (2.5–5.6)	12,827	4.7 (3.7–5.8)	6,285	3.6 (2.9–4.4)		
Town or rural	876	6.0† (1.8–13.9)	6,469	6.1 (4.7–7.8)	1,630	6.5 (3.2–11.5)		

Table 8-4b. Prevalence of Current Cannabis Co-use by Year and by Demographic Characteristics among High School Respondents (continued)

Note. LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning. CI = Confidence interval

¹ Significantly different from 2022 (p < 0.05).

² Significantly different from 2023 (p < 0.05).

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey.

** Respondents who reported (a) their gender identity as transgender or "something else" and/or (b) identified their sexual orientation as gay or lesbian, bisexual, or "something else" were considered LGBTQ+. Respondents who identified as female or male and straight (that is, not gay or lesbian) were considered non-LGBTQ+. Respondents who responded (a) unsure for gender identity and straight for sexual orientation or (b) male, female, or unsure for gender identity and unsure or "don't know" for sexual orientation were considered to have unclear LGBTQ+ status.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

8.5 Summary

There were several significant changes in tobacco use observed over time. Ever use of vapes decreased from 2023 to 2024. Ever and current use of nicotine patches increased between 2022 and 2024 overall, and there were increases within all demographic categories. There has been no significant change observed in flavored tobacco use overall since 2022. Ever and current cannabis use decreased significantly between 2023 and 2024. Flavored tobacco use did not change significantly over time. Current use of cannabis only and current co-use of cannabis and tobacco decreased significantly between 2023 and 2024.

There were many significant changes observed over time within specific demographic groups. For example, among Hispanic respondents, current tobacco, vape, LCC, cannabis, and cannabis/tobacco co-use decreased significantly between 2023 and 2024.

9. 8th-Grade Tobacco Use

The following chapter summarizes key tobacco use data for 8th-grade respondents. Due to differences in the prevalence of use of tobacco products and the sampling approach between middle and high schools (8th-grade respondents were undersampled), data for 8th-grade respondents are presented separately.

9.1 Tobacco Use among 8th-Grade Respondents

Table 9-1 presents the prevalence of ever and current use of tobacco among 8th-grade respondents. The prevalence of current tobacco use was lower for 8th-grade respondents (3.0%) than high school students (6.4%; see Chapter 1). As with high school respondents, vaping was the most common form of current tobacco use (2.5%) among 8th-grade respondents, followed by cigarettes, cigars, hookah, and nicotine pouches (all at 0.3% each).

	Ever use <i>N</i> = 3,517	Current use N = 3,517
Tobacco product	% (95% CI)	% (95% CI)
Any tobacco use	11.6 (9.5–13.8)	3.0 (2.1–4.2)
Vapes	8.9 (7.0–11.1)	2.5 (1.7–3.5)
Cigarettes	2.5 (1.9–3.2)	0.3 (0.1–0.8)
LCCs	1.0 (0.6–1.5)	0.2 (0.0–0.4)
Cigars	1.2 (0.9–1.7)	0.3 (0.1–0.7)
Hookah	1.0 (0.7–1.5)	0.3 (0.1–0.6)
Smokeless	1.0 (0.6–1.5)	0.1 (0.0-0.4)
HTPs	0.6 (0.3–0.9)	0.2 (0.0–0.4)
Nicotine pouches	1.6 (1.1–2.2)	0.3 (0.1–0.8)

Table 9-1. Prevalence of Tobacco Use among 8th-Grade Respondents

Note. CI = Confidence interval; LCCs = Little cigars or cigarillos; HTPs = Heated tobacco products

Table 9-2 presents current tobacco use prevalence among 8th-grade respondents by demographics. Current tobacco use was highest among 8th-grade respondents who identified their gender in another way (5.5%). Among racial/ethnic categories, current use was highest among multiracial respondents (3.9%). However, estimates for respondents who identified their gender another way and multiracial respondents should be interpreted with caution due to small sample sizes. When examining current tobacco use by LGBTQ+ status, current use was highest among LGBTQ+ respondents (4.9%), followed by non-LGBTQ+ (3.0%) respondents and those of unclear LGBTQ+ status (0.3%). Use was highest among respondents reporting fair (5.4%) or poor (5.3%) mental health status and lowest among those reporting good to excellent (2.3%) mental health status. When examining current tobacco use by rurality, respondents

attending schools in suburban areas had the highest current tobacco use (3.5%), followed by those attending schools in towns or rural settings (2.6%) or cities (2.5%).

	Current use			
Characteristic	N	% (95% CI)		
Overall	3,504	3.0 (2.1–4.2)		
Gender identity				
Male	1,752	2.7 (1.7–4.0)		
Female	1,618	3.2 (2.1–4.8)		
Identified in another way	127	5.5† (1.7–12.6)		
Race/ethnicity*				
White	372	2.9† (1.0–6.2)		
African American or Black	264	0.6 (0.1–2.3)		
Hispanic	2,163	3.3 (2.3–4.5)		
Asian	288	3.4† (1.0–8.3)		
Other	119	0.4 (0.0–1.5)		
Multiracial	284	3.9† (1.6–7.8)		
_GBTQ+ status**				
LGBTQ+	392	4.9 (2.9–7.7)		
Non-LGBTQ+	2,840	3.0 (2.0–4.4)		
Unclear LGBTQ+ status	249	0.3 (0.0–1.5)		
Mental health status				
Good to excellent	2,429	2.3 (1.5–3.3)		
Fair	621	5.4 (3.4–8.2)		
Poor	240	5.3 (2.6–9.4)		
Rurality				
City	1,233	2.5 (1.1–5.0)		
Suburban	1,759	3.5 (2.0–5.5)		
Town or rural	512	2.6 (1.5-4.1)		

Table 9-2.Prevalence of Current Use of Any Tobacco among 8th-Grade Respondents, by Gender
Identity, Race/Ethnicity, LGBTQ+ Status, Mental Health Status, and Rurality

Note. CI = Confidence interval; LGBTQ+ = Lesbian, gay, bisexual, transgender, queer or questioning

* With the exception of Hispanic ethnicity, all ethnicities are classified as non-Hispanic. The following groups are included in the other race category: American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and any race not captured by the survey. The table also shows the individual categories that make up "other" race.

⁺ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

We tested for changes in tobacco use over time (between 2022 and 2024) among 8th graders. We only found one significant change—an increase in ever cigar use between 2022 (0.7%, 95% CI: 0.4–1.1) and 2024 (1.2%, 95% CI: 0.9–1.7).

9.2 Flavored Tobacco Use among 8th-Grade Respondents

Table 9-3 presents the prevalence of flavored tobacco use among 8th-grade respondents. Overall, 79.8% of 8th graders who were currently using tobacco reported using a flavored tobacco product. Most respondents who were currently vaping reported using flavored vapes (82.9%). Estimates for the remaining tobacco products are not available due to small sample sizes.

Table 9-3.Prevalence of Flavored Tobacco Use among 8th-Grade Respondents Currently Using
Each Tobacco Product

	Flavored product use				
Tobacco product	Ν	% (95% CI)			
Any product*	117	79.8 (67.6–88.9)			
Vapes	102	82.9 (69.0–92.3)			

Note. CI = Confidence interval

* Includes vapes, cigarettes, LCCS, cigars, hookah, smokeless tobacco, and/or HTPs.

9.2.1 Exposure to Secondhand Vapor and Tobacco Smoke in Last 2 Weeks among 8th-Grade Respondents

Table 9-4 reports 8th-grade respondents' exposure to secondhand vapor and tobacco smoke in a car or room, outside, and in MUH. More 8th-grade respondents reported exposure to vapor and/or smoke outdoors (37.7% and 61.4%, respectively) than reported exposure to vapor and/or smoke indoors (17.6% and 14.9%, respectively). Indoors, more respondents reported exposure to vapor (17.6%) than tobacco smoke (14.9%), but the opposite was true outdoors—more respondents reported exposure to smoke (61.4%) than vapor (37.7%). Of the 32.5% of 8th-grade respondents who reported living in MUH, almost half (45.2%) reported exposure to tobacco smoke while in their unit.

Fewer 8th-grade respondents reported exposure to vapor, compared to high school respondents, in a car or room (17.6% vs 26.5%, respectively) and outdoors (37.7% vs 43.0%, respectively; see Chapter 4). However, compared to high school respondents, more 8th-grade respondents reported exposure to tobacco smoke in a car or room (14.9% vs 13.5%, respectively) and outside (61.4% vs 58.6%, respectively; see Chapter 4).

	Vapor exposure		Tobacc	o smoke exposure
Location of exposure	N	% (95% CI)	N	% (95% CI)
In a car or room	3,505	17.6 (15.4–19.9)	3,510	14.9 (13.5–16.3)
Outside	3,465	37.7 (35.4–40.1)	3,477	61.4 (58.6–64.1)
In MUH*	N/A	N/A N/A	1,131	45.2 (40.7–49.8)

Table 9-4.Prevalence of Last-2-Week Exposure to Vapor and Tobacco Smoke in Car or Room,
Outside, or MUH among 8th-Grade Respondents Living in MUH

Note. MUH = Multiunit housing; CI = Confidence interval. This question was not asked for vapor exposure, so those cells are marked N/A for "not applicable."

* Only asked of respondents who reported living in a home attached to one or more other homes or a building with two or more apartments. Exposure is defined as reporting smoke intrusion rarely, sometimes, often, or most of the time in the last 6 months.

9.2.2 Access to Vapes and Cigarettes among 8th-Grade Respondents

Table 9-5 shows methods of obtaining vapes (or pods or e-liquid) among 8th-grade respondents who were currently vaping. The most common method of obtaining vapes was being given a vape by someone else (22.1%), followed by getting them some other way (21.9%). Twenty percent of 8th-grade respondents report buying their own vapes. Sample sizes were too small to examine method of purchasing vapes among respondents who reported purchasing vapes themselves and were thus excluded from the table.

Table 9-5.Method of Accessing Vapes (or Pods or E-liquid) among 8th-Grade Respondents Who
Were Currently Vaping

Mathad	Overall N = 99 % (95% CI)
Method	% (95% CI)
I ask someone to buy them for me	19.1+ (8.7–34.1)
Someone gives them to me	22.1 (13.1–33.5)
I ask someone for them	12.2† (3.6–27.9)
I take them from someone	4.7† (1.3–11.8)
I get them some other way	21.9 (12.4–34.2)
I buy them myself	20.0 (10.8–32.3)

Note. CI = Confidence interval.

+ The estimate should be interpreted with caution given concerns about precision. The estimate meets one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate.

Sample sizes were too small to examine methods of accessing cigarettes among 8th-grade respondents and therefore are not presented here.

9.2.3 Cannabis Use among 8th-Grade Respondents

Table 9-6 presents the prevalence of ever and current cannabis use among 8th-grade respondents. Ever cannabis use (7.7%) and current cannabis use (2.3%) were lower among 8th-grade respondents than among high school respondents (19.6% and 7.9%, respectively; see Chapter 7).

Cannabis use	Overall N = 3,509 % (95% CI)
Ever use	7.7 (5.9–9.7)
Current use	2.3 (1.6–3.1)

Table 9-6.	Prevalence of Cannabis Use among 8th-Grade Respondents
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Note. CI = Confidence interval

9.2.4 Exposure to Secondhand Cannabis Smoke in Last 2 Weeks

Table 9-7 reports 8th-grade respondents' exposure to secondhand cannabis smoke in a car or room and outside in the last 2 weeks. Respondents were considered exposed outside if they reported having been near someone who was smoking cannabis outside of a restaurant, outside of a store, on a sidewalk, or at a park, playground, or beach in the last 2 weeks.

Table 9-7.	Prevalence of Last-2-Week Exposure to Cannabis Smoke in Car or Room or Outside among 8th-Grade Respondents	
	Overall	

	Overall	
Exposure	Ν	% (95% CI)
In a car or room	3,504	9.8 (8.4–11.4)
Outside	3,453	23.8 (21.6–26.0)

Note. CI = Confidence interval

Overall, 9.8% of 8th-grade respondents reported exposure to cannabis smoke in a car or room, and 23.8% reported exposure outside. Reported exposure among 8th-grade respondents was lower than exposure reported by high school respondents (17.9% in a car or room and 31.8% outside; see Chapter 7).

9.3 Summary

The prevalence of current tobacco use was lower for 8th-grade respondents than for high school respondents. Vaping was the most common form of current tobacco use. Tobacco use varied by race/ethnicity, LGBTQ+ status, and mental health. The only change in ever or current tobacco use over time for 8th-grade respondents was an increase in ever cigar use between 2022 and 2024. Most 8th-grade respondents currently using tobacco reported using flavored tobacco products, which was also the case with high school respondents. Eighth-grade

respondents reported lower secondhand exposure to vapor but higher exposure to tobacco smoke compared to high school respondents. The most common method of acquiring vapes among 8th-grade respondents (who were currently vaping) was someone giving them vapes. Prevalence of cannabis use was lower among 8th-grade respondents than high school students, as was exposure to secondhand cannabis smoke.

10. Conclusion

Overall, fewer than 20% of high school respondents reported ever using tobacco and current tobacco use remained low at 6.4%. Vapes continued to be the most-used tobacco product, followed by nicotine pouches. The most-endorsed reason for vaping was "to relax or relieve stress and anxiety." About one-third of respondents who were currently using tobacco reported currently using two or more tobacco products (i.e., polytobacco use). When examining changes in tobacco use between 2022 and 2024, ever use of vapes decreased significantly between 2023 and 2024. Ever and current use of nicotine patches increased between 2022 and 2024. Most respondents who were currently vaping or smoking cigarettes reported buying these products themselves. Respondents perceived it was easier to get vapes or cigarettes from the internet or another person than from a store.

Differences in tobacco use were observed by gender identity, race/ethnicity, grade, LGBTQ+ status, general mental health status, and rurality. Discrimination was common overall, but reports of discrimination were more common among respondents currently using tobacco. Significant changes were also evident over time for many tobacco products for members of specific demographic groups.

Most respondents who were currently using tobacco reported using flavored products, and flavored use was highest among youth using vapes. Fruit continues to be the most popular flavor for vapes. Respondents reported that they believed it was easier to access flavored tobacco products from the internet or another person than from a store. There was not a significant change in flavored tobacco use over time. Capturing all flavors used in the past 30 days, as opposed to the flavors most frequently used, may be a more effective method of capturing flavored tobacco use moving forward.

Reported exposure to secondhand vapor and/or smoke was higher outdoors than indoors. High school respondents who were currently vaping or smoking tobacco reported the highest exposure to secondhand vapor and/or tobacco smoke in a car or room and outside. Exposure to vaping and smoking on social media was common, but few respondents reported having a favorite vaping advertisement and less than half of respondents reported paying attention to posts about vaping on social media.

Overall, 42.9% of respondents who had never used vapes, cigarettes, and/or LCCs were susceptible to future use of one or more of these products, and susceptibility varied by product and across demographics. Peer use was associated with higher susceptibility. Most respondents reported that important adults and their peers had negative views about vaping and smoking.

About two-thirds of respondents supported policies around ending the tobacco epidemic. Support was highest for a public tobacco use ban and lowest for a complete tobacco sales ban. Support varied by tobacco use status and demographics. Current cannabis use was higher than current tobacco use. Smoking was the most common mode of using cannabis, followed by vaping. Co-use of cannabis and tobacco was almost as common as cannabis-only use and varied by demographics. The tobacco product most used by respondents who were co-using cannabis and tobacco was vapes. Secondhand exposure to cannabis smoke was more common outdoors than indoors. The most common method of acquiring cannabis was buying it.

10.1 Implications

Overall, the findings of this report are consistent with California's efforts to eliminate tobacco use among youth and promote negative beliefs about tobacco use. Tobacco use among youth in California remains low. The significant decrease in current vaping between 2023 and 2024 is evidence of the success of the California Tobacco Prevention Program's efforts; however, continued monitoring of vaping is warranted, as is monitoring of nicotine pouch use, which has increased recently.

It is important to continue to monitor programs and tailor them to youth who are most at risk of tobacco use, especially when respondents are members of marginalized groups, such as those who identify as neither male nor female, LGBTQ+, "other" race (e.g., a race not listed, American Indian or Alaska Native, or Native Hawaiian or other Pacific Islander), multiracial, having fair or poor mental health, and those who have reported discrimination.

Several increases in use captured in the 2023 and 2024 CTYS are also worth monitoring, including cigarette smoking among respondents who identified as neither male nor female, those of unclear LGBTQ+ status, and those who identified "other" as their race. Cigar smoking also increased among respondents who identified as neither male nor female. These findings have the potential to influence Tobacco-Use Prevention Education programming. Higher levels of tobacco use and increases over time for members of marginalized populations and those who experience mental health problems and discrimination suggest that supportive tobacco prevention and cessation interventions (as opposed to punitive ones) may be beneficial. One example of a supportive program offered in the state of California is the Youth Vaping Alternative Program Education.¹⁹

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Appendix A: List of Terms

A.1 Tobacco Products and Cannabis Definitions

Any tobacco use: Use of one or more of the following products: vapes, cigarettes, little cigars or cigarillos, cigars, hookah, smokeless tobacco, heated tobacco products, or nicotine pouches. **Cigarettes**: Definition from survey: "Cigarettes are sold in packs and cartons. Popular brands include Marlboro, Newport, Pall Mall, Camel, and Winston."

Cigars: Definition from survey: "Big cigars, also called traditional, regular, or premium cigars, are tobacco wrapped in a tobacco leaf. Popular brands are Macanudo, Romeo Y Julieta, Arturo Fuente, Cohiba, Davidoff, and Ashton, but there are many others."

Heated tobacco products (HTPs): Heated tobacco products (for example, IQOS products), also known as heat-not-burn tobacco products, use a technology that heats tobacco instead of burning it.

Hookah: Also called waterpipe or shisha.

Little cigars or cigarillos (LCCs): Definition from survey: "Little cigars, cigarillos, and filtered cigars are wrapped in tobacco leaf or brown paper containing tobacco. They are smaller than big cigars and may be flavored. Popular brands include Swisher Sweets, Backwoods, Dutch Masters, Captain Black, Prime Time, White Owl, Black & Mild, Phillies Blunts, Zig Zag, and Cheyenne."

Cannabis: The term cannabis (instead of marijuana) is used throughout this report because it is the scientific term for marijuana and is more comprehensive than the term marijuana. In the survey, both terms are used: "Marijuana (including joints, blunts, vapes, and edibles) is commonly known as cannabis, weed, pot, hash, grass, THC, or CBD. It can be smoked (joint, blunt, bong), vaped in a wax pen, eaten (baked goods, candies), drank (tea, cola, alcohol), or dabbed."

Nicotine pouches: Small pouches that contain nicotine and are placed in the mouth. Brands include Zyn, On, or Velo.

Smokeless tobacco: Chewing tobacco, snuff, snus, dip, or dissolvable tobacco.

Tobacco smoking status: This term was used to examine exposure to smoked tobacco (cigarettes or LCCs) by tobacco smoking (cigarettes or LCCs) status. For this variable, respondents who reported current use of cigarettes or LCCs were classified as currently smoking tobacco. Respondents who reported ever use of either of these products but as not using either product in the last 30 days were considered to have formerly smoked tobacco. Respondents who reported never use of both cigarettes and LCCs were considered to have never smoked tobacco. **Vapes**: Definition from survey: "These products are sometimes called by their brand names (e.g., Puff Bar, Bang Bar, JUUL) or by terms such as e-cigarettes, vape pens, personal vaporizers and mods, e-cigars, e-pipes, e-hookahs, and hookah pens."

A.2 Product Use Definitions

Current use: Use of a product within the last 30 days.

Ever use: Response of "yes" to a question about ever using a product.

Flavored tobacco use: Smoking menthol cigarettes (see definition of menthol cigarette use below) or, for all other tobacco products, selecting any flavor other than tobacco or unflavored as the most-used flavor. All of the following were considered flavors: menthol or mint; cooling, ice, or frosty; clove or spice; fruit; an alcoholic drink (such as wine, cognac, margarita, or other cocktails), a nonalcoholic drink (such as coffee, soda, energy drinks, or other beverages); candy, chocolate, desserts, or other sweets.

Unflavored tobacco use: Smoking cigarettes in the past 30 days but responding "no" to the question about menthol cigarette use in the past 30 days (see definition below) or, for all other products, selecting "tobacco" or "unflavored" as the most-used flavor.

Former tobacco use: Use of a tobacco product, but not within the last 30 days.

Intention to quit vaping: Plan to quit using vapes in the next 30 days.

Menthol cigarette use: Response of "yes" to the following survey item: "Menthol cigarettes are cigarettes that taste like mint. Common brands include Newport, Salem, and Kool. Were any of the cigarettes you smoked in the last 30 days flavored, such as menthol?"

Never tobacco use: Response of "no" to ever using any tobacco products.

Polytobacco use: Use of two or more tobacco products within the last 30 days.

Quit attempt for vaping: One or more attempts to completely stop using vapes in the last 12 months.

Tobacco-cannabis co-use: Use of cannabis and at least one tobacco product within the last 30 days.

A.3 Created Variables and Other Definitions

Race/Ethnicity

Hispanic: Response of "yes" to the question "Are you of Hispanic or Latino/Latina origin?" regardless of race(s) reported.

Non-Hispanic single race (African American or Black, Asian, White): Response of "no" to the Hispanic ethnicity question and report of African American or Black, Asian, or White when asked "How do you describe yourself?"

Non-Hispanic multiracial: Response of "no" to the Hispanic ethnicity question and report of two or more races.

Non-Hispanic other race: Response of "no" to the Hispanic ethnicity question and report of one of the following: some other race (i.e., a race not listed), American Indian or Alaska Native (AI/AN), or Native Hawaiian or other Pacific Islander (NHOPI). AI/AN and NHOPI respondents were included in this category due to small sample sizes for these two groups. When possible, values were displayed for these groups individually (separate from respondents who endorsed "other" race).

Gender Identity

Gender: Options for gender identity in the survey were "male," "female," "transgender," "something else," and "I'm not sure yet." Responses were recoded so that "transgender," "something else," and "I'm not sure yet" were collapsed into a single category called "identified in another way." A fourth category, "declined to answer," was created for respondents who skipped this question; however, that category was entirely suppressed in the 2024 report due to small sample sizes. Respondents who did not reach this question were assigned a value of "missing" for this variable.

Sexual orientation: Options for sexual orientation in the survey were "gay or lesbian"; "straight, that is, not gay or lesbian"; "bisexual"; "something else"; "I'm not sure yet"; or "don't know what this question means."

LGBTQ+ status: This variable was defined by combining responses to survey items about gender identity and sexual orientation (see response options above). Respondents who did not provide enough information to be included in any of the below categories were assigned a value of "missing" for LGBTQ+ status.

LGBTQ+: Respondents who reported their gender identity as transgender or "something else" and/or selected one of the following responses for their sexual orientation:

- gay or lesbian
- bisexual
- "something else"

Non-LGBTQ+: Respondents who reported:

- their gender identity as male or female; and
- their sexual orientation as "straight, that is, not gay or lesbian."

- Unclear LGBTQ+ status: Respondents who did not provide enough information about their gender identity and/or sexual orientation to classify their LGBTQ+ status. This included those who selected:
 - "I'm not sure yet" for gender identity and reported their sexual orientation as "straight, that is, not gay or lesbian;" or
 - "male," "female," or "I'm not sure yet" for gender identity and responded "I'm not sure yet" or "don't know what this question means" for sexual orientation.

Rurality

We used the National Center for Education Statistics (NCES) definition of rurality to code all respondents based on the rurality of their school's location. NCES divides school locations into 12 categories.²⁰ We collapsed these 12 categories into three categories: city, suburb, and town or rural area.

City: Respondent's school is in an area classified by NCES as a small, midsize, or large city. "City" is defined as a territory inside an urbanized area and inside a principal city, and size is determined by population.

Suburb: Respondent's school is in an area classified by NCES as a small, midsize, or large suburb. "Suburb" is defined as a territory outside of a principal city and inside an urbanized area, and size is determined by population.

Town or rural area: Respondent's school is in a fringe, distant, or remote town or rural area. "Town" is defined as a territory inside of an urban cluster, and the type of town is based on distance from an urbanized territory. "Rural area" is defined as a Census-defined rural territory, and the type of rural area is based on distances from urbanized areas and urban clusters.

Other

Adult disapproval of smoking: Respondent's indication that adults important to them would feel negatively ("negative" and "very negative" as opposed to "positive" or "very positive") about the respondent smoking.

Adult disapproval of vaping: Respondent's indication that adults important to them would feel negatively ("negative" and "very negative" as opposed to "positive" or "very positive") about the respondent vaping.

Peer disapproval of smoking: Respondent's indication that other respondents at their school would view smoking cigarettes negatively ("negative" and "very negative" as opposed to "positive" or "very positive").

Peer disapproval of vaping: Respondent's indication that other respondents at their school would view vaping negatively ("negative" and "very negative" as opposed to "positive" or "very positive").

Complete home ban on vaping: Response of "vaping is not allowed anywhere or at any time inside my home" when asked about rules about vaping inside the home.

Complete home ban on tobacco smoking: Response of "smoking cigarettes or other tobacco products is not allowed anywhere or at any time inside my home" when asked about rules about smoking cigarettes or other tobacco products inside the home.

Discrimination: This variable measures experiences of discrimination in the last month. Response options were "almost every day," "at least once a week," "a few times," or "not at all." The individual items were modified for youth from the Everyday Discrimination Scale.²¹ The original scale does not specify a period for experiences, but we added one based on confusion about the original wording of the item during cognitive testing. Although these items are traditionally analyzed as a scale, to characterize experiences of youth in the sample in depth, we included responses to individual items in this report. Respondents who endorsed any listed experience of discrimination, consistent with the original scale, were asked to attribute their experiences to one or more factors. Respondents were coded as attributing the discrimination to a specific characteristic if they endorsed that characteristic, regardless of whether they also endorsed other characteristics.

Secondhand smoke: Smoke from a cigarette, little cigar, or cigarillo.

Exposure to secondhand tobacco smoke in a car or room: Being in a car or room when someone was smoking a cigarette, little cigar, or cigarillo in the last 2 weeks.

Exposure to secondhand tobacco smoke outside: Being near someone who was smoking a cigarette, little cigar, or cigarillo outside of a restaurant; outside of a store; at a park, playground, or beach; or on a sidewalk in the last 2 weeks.

Exposure to secondhand tobacco smoke in multiunit housing: Among respondents who indicated living in multiunit housing, answering "rarely," "sometimes," "often," or "most of the time" (as opposed to "never") to the question "In the past 6 months, how often has tobacco smoke from somewhere else in and around the building you live in come into your unit?"

Secondhand vapor: Aerosol released from using an e-cigarette or other vaping device.

Exposure to secondhand vapor in a car or room: Being in a car or room when someone was using a vape in the last 2 weeks.

Exposure to secondhand vapor outside: Being near someone who was using a vape outside of a restaurant, outside of a store, on a sidewalk, or at a park, playground, or beach in the last 2 weeks.

General mental health: Assessed by asking, "In general, how would you rate your mental health?" Response options were coded as good to excellent ("good," "very good," or "excellent") versus fair or poor.

Living in multiunit housing: Response of "a one-family house attached to one or more houses," "a building with two apartments," or "a building with three or more apartments" to the question, "Which of the following options best describes where you live most of the time?" Other response options were "a mobile home," "a one-family house detached from any other house," a "boat, RV, van, etc.," or "I do not have permanent housing."

Perceived ease of access: Respondents were coded as perceiving easy access to cigarettes, vapes, cannabis, and alcohol if they responded "somewhat easy" or "very easy" (as opposed to "somewhat difficult" or "very difficult") when asked, "If you wanted to get the following products from a store, how easy or difficult would it be?" This coding scheme was also applied to responses to the same questions that were asked about access from the internet or someone else.

Susceptible to future tobacco use (three-item measure): Response of "definitely yes," "probably yes," or "probably not" to all three of these questions: "If one of your best friends offered you [a tobacco product never used by the respondent], would you use it?"; "Do you think you will try [a tobacco product never used by the respondent] soon?"; and "Do you think you will use [a tobacco product never used by the respondent] in the next year?"

Not susceptible to future tobacco use (three-item measure): Response of "definitely not" to all three of these questions: "If one of your best friends offered you [a tobacco product never used by the respondent], would you use it?"; "Do you think you will try [a tobacco product never used by the respondent] soon?"; and "Do you think you will use [a tobacco product never used by the respondent] in the next year?"

A.4 Definitions for Analytic Terms

Korn-Graubard confidence interval: Unlike Wald confidence intervals, Korn-Graubard confidence intervals do not assume that the confidence interval is linear; this assumption tends to be violated for very small and very large prevalence estimates. As a result, Korn-Graubard confidence intervals are more accurate than Wald ("linear") confidence intervals for small and large estimates. Korn-Graubard confidence intervals are commonly used for small prevalence estimates produced by survey data.^{22,23}

Nominal sample size: The number of observations in the sample.

Effective sample size: Effective sample size is calculated as $\frac{p \times (1-p)}{se^2}$ where *p* is the prevalence estimate and *se* is the standard error of the prevalence estimate.

Appendix B: Survey Methodology of 2024 California Youth Tobacco Survey

B.1 Survey Administration

RTI International conducted the California Youth Tobacco Survey (CYTS) annually between 2022 and 2024. Prior to 2022, the University of California, San Diego conducted the study, which was called the California School Tobacco Survey. After the 2024 data collection, the CYTS will return to a biennial data collection schedule.

The 2024 CYTS was designed to produce state-level estimates for tobacco use. This appendix provides a brief overview of survey methodology for the 2024 CYTS. Additional detail on survey methods can be found in the *Technical Report on Analytic Methods and Approaches Used in the California Youth Tobacco Survey 2024* by Russell et al.²⁴

B.2 Sampling Strategy

RTI implemented a probability-based sample designed to produce a set of respondents representative of California's racially, ethnically, culturally, and geographically diverse student population. The sample is a stratified two-stage design. The primary sampling units are schools. The secondary sampling units are classrooms. All students in selected classrooms were selected to participate in the study. The sampling methodology is based on procedures developed by the U.S. Centers for Disease Control and Prevention for the Youth Risk Behavior Survey and state Youth Tobacco Surveys.²⁵

The sampling methodologies used for the 2024 CYTS and the 2022 CYTS are similar. During these data collection years, the sample was designed to make estimates to one geographic domain—the entire state of California. In 2023, in addition to the entire state of California, the CYTS was designed to make estimates to 35 geographies consisting of either individual counties or groups of counties.

The sampling frame is a list of all eligible schools from which the 2024 CYTS school sample was drawn. The frame was constructed from the current list of public schools and private schools from the California Department of Education website^b at the time of sample selection.

The sample was designed to yield state-level population estimates, with adequate precision, for the following groups: high school (10th and 12th grade) and middle school (8th grade) students, each grade individually, and Asian American, African American/Black, Hispanic, and White students.

^b The public school data come from a <u>data extraction tool</u> located on the California Department of Education website. The private school data were downloaded from the <u>Private School Data</u> <u>web page</u> on California Department of Education website. The file used is called privateschools2223.xlsx.

The sample was stratified by three characteristics: public/private, proportion of African American/Black students (< 25%, 25 to 30.5%, greater than 30%), and school type (8th grade only; 10th and 12th grades only; 8th, 10th, and 12th grades). The sample was stratified by the proportion of African American/Black students to oversample schools with a larger proportion of these students, thereby increasing the number of responding African American/Black students and improving the precision of estimates for this group. Schools were stratified by school type to undersample middle school respondents.

The 2024 CYTS sample was designed to collect data from 100 schools and 14,700 students. RTI achieved 105 responding schools and 16,207 responding students.

B.3 Participation

To promote participation in CYTS, schools were given a \$500 gift card for administering the survey. Teachers usually acted as proctors for the survey. In some cases, other school staff proctored. Proctors were provided with directions for administering the survey. RTI staff were available to answer questions from proctors.

The 2024 CYTS was administered online during the school day. The online survey included programmed skip logic to reduce respondent burden and took a median of 19.8 minutes to complete. A few questions in the survey were mandatory; these asked about respondents' willingness to participate in the survey and grade level. The remaining survey questions were optional, although a message appeared if the question was unanswered. The respondent had the option to skip the question and advance the survey after encountering the message.

Respondent participation was voluntary and anonymous. Consent procedures were consistent with school district guidelines. We used passive consent for all schools based on State of California requirements. Parental consent forms were distributed to respondents to take home 1 week before the survey. Consent forms were available in Spanish and additional languages as requested. Respondents were also asked to give their assent to participate at the beginning of the survey.

B.4 Survey Sample of 2024 CYTS

The number and percentage of schools sampled, eligible, and responding, by stratum is provided in Table B-1. Of the 162 schools sampled, 155 were eligible to participate and 105 schools participated. This response rate is the ratio of responding schools (105) to eligible schools (155). The school response rate was 67.7%.

			Schools					
	Stratum		Sampled		Eligible		Responding	
	African	Grades						
Public/private	Black %		Ν	%	N	%	N	%
	25–30.5	N/A	5	3.1	5	3.2	5	4.8
	> 30.5	N/A	14	8.6	13	8.4	9	8.6
Public	< 25	8	26	16.0	26	16.8	21	20.0
	< 25	10/12	75	46.3	74	47.7	49	46.7
	< 25	8, 10/12	18	11.1	17	11.0	13	12.4
	N/A	8	2	1.2	2	1.3	1	1.0
Private	N/A	10/12	12	7.4	10	6.5	3	2.9
	N/A	8, 10/12	10	6.2	8	5.2	4	3.8
Total			162	100.0	155	100.0	105	100.0

Table B-1.Number and Percentage of Schools Sampled, Eligible and Responding, by Stratum,
Participating in 2024 CYTS

The 2024 CYTS sample included 14,700 students. Schools were given the option of administering the survey to the selected classes or to all classes with eligible students. Although we sampled 14,700 students, we obtained 19,921 responses because some schools opted administer the survey to all eligible students. Of the 19,921 recruited students, 1,035 declined to consent, 1,966 students were dropped because they completed less than 50% of the items in the survey that could not be skipped (i.e., items not subject to skip patterns), 712 were dropped because they provided low-quality responses (three or more of the following: reported that they had not been honest in their responses, reported that they often provided funny and fake responses in surveys, missed one or both attention checks, or selected "prefer not to answer" for 25% of their responses), and one was dropped due to class ineligibility. After excluding these participants, 16,207 valid responses remained. The student response rate was therefore 81.4% (16,207/19,921). The overall response rate was 55.1% (67.7%*81.4%). Of the 16,207 surveys, 3,559 were obtained from 8th-grade students, 6,766 were obtained from 10th-grade students, and 5,882 were obtained from 12th-grade students. Less than 2% (1.4 %) of participants in the analytic sample completed the survey in Spanish; the rest completed the survey in English.

B.5 Survey Content

RTI designed the 2024 survey to provide consistent wording with the 2022 and 2023 surveys. Such consistency allows for comparable prevalence estimates of tobacco use among youth in California over time. The final survey, which was created in English and translated into Spanish, included the following categories of items: assent to participate, initial demographics, vaping, cigarettes, cigars and little cigars or cigarillos, other tobacco products, cannabis, alcohol, tobacco cessation, the behaviors of influential others, influences at school, personal opinions, exposure to social media, mental health (including experiences of discrimination), and more sensitive demographic questions. The 2024 survey consisted of 186 items, 81 of which were not subject to any skip logic. Surveys were available in English and Spanish.

When updating the survey for 2024 data collection, RTI adjusted the placement of sexual orientation and gender identity items, added questions about socioeconomic status, and adjusted policy question wording.

California Assembly Bill No. 959 requires three questions on sexual orientation and gender identity (SOGI). In the 2023 CYTS, these items were placed at the end of the survey to avoid participants ending the survey after viewing these potentially sensitive questions. In 2022 and 2023, the Teens, Nicotine, and Tobacco (TNT) survey conducted an experiment to see if placement of these questions affected survey dropoff. The results showed low dropoff for these questions when they were placed at the beginning of the survey, but almost 5% higher missingness when placed at the end of the survey. As a result, SOGI questions were moved up to the beginning of the survey in 2024. The 2024 survey also added a new item to collect intersex identity. The item was obtained from an issue brief by the National Academies of Sciences, Engineering, and Medicine.²⁶

The 2024 CYTS also included two new questions about socioeconomic status. We selected these items from Williams et al.,²⁷ which ask respondents to report their family's overall financial status. We added the word "money" to the question based on TNT research showing that the addition of this word improved youth comprehension of the validated item.

To capture attitudes about California Tobacco Prevention Program policy priorities, the 2024 survey added two questions. To monitor the impact of SB793 implementation, a definition was added to existing items discussing "flavored tobacco products." A new question asking about the participant's awareness of SB793 was also added, as a supplement to existing questions about perceived access to flavored tobacco products. A new question was added to determine the level of support for creating a tobacco-free generation.

Only one question was removed between the 2023 and 2024 administrations of the CYTS. RTI removed an item asking about flavored blunt use.

Additional survey question changes for the 2024 administration include altering how the survey asks about social media use. Previously a single item, this was broken into two parts to better

account for current patterns in social media use among youth and young adults. We also updated vaping brands based on trends in use. Two additional questions were changed: (1) We allowed participants to select more than one vape device type when asking about device type and (2) we added "marijuana flavored" to the list of marijuana vape flavors based on the prior year's free-text responses.

B.6 Analysis

Sampling weights map the set of respondents to the population. Each sample member on the analytic dataset has a weight; this weight can be interpreted as the number of people the respondent represents. Calculating the weight involves the following steps.

- The initial school weight is the inverse of the probability of selection of that school.
- The school weight is adjusted for school nonresponse.
- The student weight is the inverse of the probability of selection of that student within the selected school.
- The student weight is adjusted for nonresponse.
- The design weight is the product of the nonresponse adjusted school weight and the nonresponse adjusted student weight.
- The design weight is calibrated to population totals derived from the sample frame.

The weighting procedure is described in more detail in the *Technical Report for the California Youth Tobacco Survey 2024*.

The technical report also contains information on the criteria that we used to determine whether to label specific estimates as imprecise or suppress them entirely. Estimates were labeled as imprecise if they met one or both of the following criteria: (a) the absolute width of the Korn-Graubard confidence interval for the estimate is ≥ 0.30 OR (b) the absolute width of the Korn-Graubard confidence interval is < 0.30 and > 0.05 and the relative width of the Korn-Graubard confidence interval is greater than 130% of the estimate. Some estimates were suppressed due to small sample sizes—specifically, a nominal or effective sample size less than 30. For definitions of Korn-Graubard confidence intervals and nominal and effective sample size, see Appendix A.

When comparing 2023 and 2024 to 2022 CYTS data, it is important to note that the COVID-19 pandemic negatively affected 2022 student-level response rates, which affected the ability to make some estimates with sufficient precision in 2022.

B.7 Race/Ethnicity

To measure the ability of the 2024 CYTS to sample the racial/ethnic makeup of the state of California, we compared the racial/ethnic makeup of the CYTS sample to the corresponding

race/ethnicity data provided by the California Department of Education (CDE). The race/ethnicity categories of CYTS are similar but not identical to those used by CDE. In the CYTS, the racial/ethnic background of respondents was determined using two primary questions. The first asked about Hispanic or Latino/Latina origin (i.e., ethnicity) and the second asked respondents to indicate how they describe themselves (i.e., race) by marking all that apply: African American or Black, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, White, or Other. The "other" category included a text box for entering a freetext response. We assigned a respondent to a particular race category based on the respondents' free-text responses by implementing the U.S. Census's definition of which groups fall into each racial category. Generally, these categories map well onto those provided by CDE, with one exception: CDE does not include the category "non-Hispanic other race."

To compare the racial/ethnic makeup of the 2024 CYTS and CDE data on race/ethnicity, we needed to calculate the number of 8th, 10th, and 12th graders in each racial/ethnic category. For each school, we multiplied the number of students in each racial/ethnic category, across all grades, by the percentage of students in each racial/ethnic category. When the sum of the percentages in a given school differed from 100% by more than 5%, we ratio-adjusted the percentages to sum to 100%.

Table B-2 lists the categories provided by CDE and the corresponding categories for the 2024 CYTS, when available (with the exception of non-Hispanic other race). Because private schools do not provide information on race and ethnicity, the data in Table B-2 are from public schools only.

The estimates are unweighted. The percentage of each race/ethnicity was similar between CYTS and CDE enrollment data for all categories. Compared to CDE enrollment figures, the CYTS contains a larger percentage of students who identified as Hispanic (55.6% vs. 60.9%), a lower percentage of White non-Hispanic students (21.6% vs. 16.8%), and a lower percentage of Asian students (9.7% vs 7.4%).

Control		CD	E totals	СҮТЅ	CYTS respondents		
school	Race/ethnicity category	N	(%)	N	(%)		
Public	African American not Hispanic	67,906	5.0	837	5.5		
	American Indian or Alaska Native	6,220	0.5	47	0.3		
	Asian*	130,592	9.7	1,129	7.4		
	Filipino	34,673	2.6	330	2.2		
	Hispanic or Latino	748,890	55.6	9,270	60.9		

Table B-2. Race/Ethnicity Makeup of 2024 CYTS Respondents and CDE Enrollment Data for Public School Students School Students

(continued)

Control of		C	DE totals	CYTS	CYTS respondents	
school	Race/ethnicity category	N	(%)	N	(%)	
	Pacific Islander**	5,910	0.4	75	0.5	
	White not Hispanic	290,620	21.6	2,552	16.8	
	Two or more races not Hispanic	52,304	3.9	846	5.6	
	Not reported or other race,*** not Hispanic	10,266	0.8	134	0.9	
	Total	1,347,381	100.0	15,220	100.0	

Table B-2. Race/Ethnicity Makeup of 2024 CYTS Respondents and CDE Enrollment Data for Public School Students (continued)

Note. CDE = California Department of Education; CYTS = California Youth Tobacco Survey. CDE enrollment data were restricted to schools that were considered eligible to participate in CYTS. Race/ethnicity data are unweighted and should not be compared with weighted estimates throughout this report.

* Does not include respondents who identified as Filipino.

** Includes Pacific Islanders for CDE and Native Hawaiians or other Pacific Islanders for CYTS.

*** "Not reported or other race" is terminology from CDE. For the CYTS data in the table, this category only includes respondents who reported "non-Hispanic other race" (i.e., race not captured by the survey). For purposes of this table, these groups are considered equivalent, even though CYTS respondents who did not report their race or ethnicity are excluded from the table.

The method of classifying race/ethnicity that was used in the 2024 CYTS has limitations. To provide a greater understanding of the impact of CYTS's classification of race/ethnicity, Table B-3 compares how individuals were labeled using CYTS's race/ethnicity definition and how they responded to individual questions about Hispanic ethnicity and race in the survey.

Notably, CYTS assigns each respondent to one combined racial/ethnic category, while respondents can endorse Hispanic ethnicity or not and can endorse more than one response option for the question about race. For example, a large portion of respondents who endorsed White or a race not listed in the survey also reported being Hispanic. Due to small sample sizes, respondents who reported being American Indian or Alaska Native or Native Hawaiian or other Pacific Islander were combined with respondents who endorsed a race that was not listed in the survey (i.e., "other race").

Assigned Race/Ethnici	ty Catego	ory	Race/Ethnicity Responses Endorsed			
Category N (%)		Response Option	N	(%)		
White	2,545	15.8	White	6,227	38.4	
African American or Black	892	5.5	African American or Black	1,861	11.5	
Hispanic	9,453	58.5	Hispanic	9,453	58.4	
Asian	1,686	10.4	Asian	2,606	16.1	
Other*	463	2.9	Other	5,735	35.4	
Multiracial	1,118	6.9	American Indian or Alaska Native	839	5.2	
			Native Hawaiian or other Pacific Islander	450	2.8	

Table B-3.Assigned Race/Ethnicity Categories, Compared to Racial and Ethnic Responses Endorsed,
among Respondents to the 2024 CYTS

Note. The percentage in endorsed does not add up to 100% because respondents could select more than one response. Race/ethnicity data are unweighted and should not be compared with weighted estimates throughout this report.

* Participants who reported being non-Hispanic and only one of the following races were combined into a category labeled "other" due to small sample sizes: American Indian or Native American (*n* = 48, 0.3%), Native Hawaiian or other Pacific Islander (*n* = 78, 0.5%), and a race not listed in the survey (*n* = 337, 2.1%).

One benefit of the categorization used by CYTS is that the racial/ethnic category of all individuals who endorse being Hispanic are considered Hispanic. This approach is helpful because many of the individuals who identified as Hispanic selected "other" race and entered a free-text response indicating that they are Hispanic, as evidenced by 2.9% of respondents being categorized as non-Hispanic other race in the analysis but 35.4% of respondents selecting "other" for their race in the survey.