2022 New Jersey Youth Tobacco Survey

A Statewide Report



Lt. Governor

ACKNOWLEDGEMENTS

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The 2022 New Jersey Youth Tobacco Survey was completed by

The Institute for Nicotine and Tobacco Studies at Rutgers, The State University of New Jersey

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Disclaimer

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Highlights

The 2022 New Jersey Youth Tobacco Survey assessed ever (i.e., any use, even one time) and current (i.e., on one or more of the previous 30 days) use of cigarettes, cigars, smokeless tobacco (SLT), snus, hookah, electronic cigarettes (e-cigarettes), and nicotine pouches, as well as secondhand smoke or vapor exposure, menthol cigarette use, and cigarette access among New Jersey public high school students.

Among New Jersey public high school students in 2022:

- 25.0% had ever tried at least one tobacco or nicotine product.
- The most common product ever tried was e-cigarettes (19.6%), followed by cigarettes (5.9%), cigars (5.8%), and hookah (5.8%).
- 11.0% reported current (past 30 day) use of at least one tobacco or nicotine product.
- 3.2% reported current (past 30 day) use of two or more tobacco products.
- 63.9% experienced exposure to secondhand smoke or vapor in the past seven days.
- E-cigarettes (9.3%) were the most common currently used product, followed by cigars (1.9%) and hookah (1.7%).
- Disposable devices (76.6%) were the most common type of e-cigarette device reported by students currently using e-cigarettes.
- 95.8% of students currently using e-cigarettes reported using flavored e-cigarettes, including fruit (65.5%), sweet or candy-like (34.1%), and mint or wintergreen (32.7%) flavors.
- Lava (34.8%) and Flair (11.1%) were most commonly reported by students currently using e-cigarettes as their usual brand.
- 35.2% of students currently using e-cigarettes reported that they purchased the products themselves.

Background and Methodology

Since 1999, New Jersey has conducted biennial surveillance of tobacco use among New Jersey youth. The New Jersey Youth Tobacco Survey (NJYTS) is an adaptation of the National Youth Tobacco Survey (NYTS) developed by the Centers for Disease Control and Prevention (CDC), consisting of both CDC-recommended "core" questions and "state-added questions" specific to New Jersey. The 2022 NJYTS included questions about ever and past-30-day use of cigarettes, cigars, smokeless tobacco (SLT), hookah, snus, electronic cigarettes (e-cigarettes), and nicotine pouches, as well as questions that assess susceptibility to tobacco use, exposure to secondhand smoke, and access to tobacco.

The NJYTS employed a two-stage cluster design to obtain a representative sample of students in grades 9 through 12. The first-stage sampling frame consisted of all public schools in New Jersey enrolling students in grades 9, 10, 11, or 12, and schools were selected with a probability proportional to size (PPS), without replacement, for a total of 50 schools. Subsequently, a simple random sample of three to four mandatory classes was selected within each participating school, and all students in selected classes were selected for participation. Thirty-five of 50 selected schools (70%) agreed to participate and 2,745 of 3,661 (75%) selected students consented and completed questionnaires; 2,581 total surveys were usable. The overall participation rate, calculated by multiplying the school participation rate by the student participation rate, was 52.5%. The data were weighted to adjust for non-response and the varying probabilities of selection, thus providing results representative of New Jersey's 9th-12th grade student population.

Prevalence estimates and 95% confidence intervals (CI) were computed using SAS 9.4 (SAS Institute, Cary, NC) survey procedures, which account for the complex sample design of the survey.

Results

Results from the 2022 NJYTS are presented below.

Ever Use of Tobacco Products

The 2022 NJYTS assessed ever use of cigarettes, cigars, smokeless tobacco (SLT), snus, hookah, electronic cigarettes (e-cigarettes), and nicotine pouches, defined as any use (even just one time) of a respective product. Ever use prevalence estimates and 95% confidence intervals (CI) are presented overall and by sex, race/ethnicity, and grade level for each product type in **Table 1**. Overall, 25.0% of New Jersey high school students had ever tried at least one tobacco product and 13.5% had tried at least one combustible product. The most common tobacco products ever tried by New Jersey high school students were e-cigarettes (19.6%), followed by cigarettes (5.9%), cigars (5.8%), and hookah (5.8%).

More males than females had tried cigars (8.2% vs 3.4%). By race/ethnicity, ever use of e-cigarettes was most prevalent among non-Hispanic multiracial students (28.3%), and ever use of hookah was most prevalent among non-Hispanic Black students (11.7%). In general, ever use prevalence increased with grade level for all products, with several notable differences observed when comparing 9th to 12th graders including cigars (2.1% vs 10.5%) and e-cigarettes (9.9% vs 26.6%).

Table 1. Ever Use of Tobacco Products, NJYTS 2022

	Cigarette	Cigar	SLT	Hookah	E-cig	Nicotine Pouch	Any combustible	Any product
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	~ (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Sex								
Male	6.0 (4.8-7.2)	8.2 (6.5-9.9)	1.5 (0.8-2.3)	5.4 (4.1-6.6)	17.6 (14.8-20.3)	3.6 (2.3-4.9)	14.3 (12.1-16.5)	23.6 (20.5-26.7)
Female	5.8 (4.1-7.4)	3.4 (2.4-4.5)	0.6 (0.1-1.1)	6.4 (4.8-8.0)	21.7 (18.7-24.7)	1.5 (0.7-2.4)	12.8 (10.6-15.1)	26.5 (23.1-30.0)
Race/Ethnicity								
NH White	6.0 (4.1-8.0)	7.4 (5.3-9.5)	1.1 (0.3-1.9)	2.2 (1.2-3.3)	18.5 (15.1-22.0)	2.8 (1.4-4.1)	11.8 (9.1-14.4)	22.1 (18.1-26.1)
NH Black	5.4 (2.8-7.9)	5.0 (2.9-7.0)	1.1 (0.0-2.2)	11.7 (7.2-16.1)	19.2 (13.1-25.2)	2.9 (0.6-5.1)	18.3 (13.7-22.8)	29.0 (22.1-35.9)
Hispanic	6.1 (4.8-7.4)	4.5 (3.1-5.8)	1.1 (0.2-2.0)	8.3 (6.5-10.2)	22.8 (19.7-25.8)	2.4 (1.0-3.9)	14.7 (12.3-17.1)	29.2 (26.0-32.3)
NH Asian	6.0 (3.5-8.4)	3.4 (1.0-5.8)	1.0 (0.0-2.4)	4.5 (2.2-6.8)	10.3 (6.3-14.3)	1.0 (0.0-2.1)	8.9 (5.9-11.9)	14.5 (9.9-19.1)
NH Other	0.0 (0.0-0.0)	4.2 (0.0-12.4)	0.0 (0.0-0.0)	10.6. (0.0-22.6)	7.4 (0.0-17.8)	0.0.0 (0.0-0.0)	10.6 (0.0-22.6)	10.6 (0.0-22.6)
NH Multi	4.7 (0.4-8.9)	8.5 (2.9-14.2)	1.0 (0.0-2.9)	6.4 (2.6-10.2)	28.3 (19.5-37.1)	3.8 (0.3-7.4)	16.1 (9.4-22.8)	36.8 (27.5-46.1)
Grade								
9	2.7 (1.5-4.0)	2.1 (0.7-3.4)	0.2 (0.0-0.6)	3.4 (0.7-6.1)	9.9 (6.9-13.0)	0.8 (0.0-1.8)	6.4 (3.3-9.6)	13.2 (8.9-17.4)
10	5.7 (4.1-7.3)	4.9 (3.3-6.4)	0.8 (0.0-1.8)	4.8 (2.7-6.9)	18.3 (13.9-22.7)	2.2 (0.8-3.6)	13.0 (9.9-16.1)	23.9 (18.5-29.3)
11	6.8 (4.7-9.0)	6.0 (4.2-7.8)	1.3 (0.1-2.5)	7.5 (5.1-9.9)	24.4 (20.8-27.9)	3.0 (1.5-4.5)	15.4 (12.4-18.4)	30.2 (26.1-34.4)
12	8.3 (5.8-10.9)	10.5 (7.6-13.4)	1.9 (0.7-3.0)	7.7 (5.5-9.9)	26.6 (22.3-30.8)	4.5 (2.5-6.5)	19.8 (16.7-22.9)	33.7 (29.5-38.0)
Overall	5.9 (4.8-6.9)	5.8 (4.7-6.9)	1.1 (0.6-1.6)	5.8 (4.7-6.9)	19.6 (17.3-21.8)	2.6 (1.7-3.4)	13.5 (11.8-15.3)	25.0 (22.4-27.6)

SLT: Smokeless tobacco (snuff, chew, or snus); E-cig: Electronic cigarette; Combustible: cigarette, cigar, hookah; CI: 95% Confidence Interval; NH: Non-Hispanic; Multi: Multiracial

Current Use of Tobacco Products

The 2022 NJYTS assessed current use of cigarettes, cigars, SLT, hookah, e-cigarettes, and nicotine pouches defined as use on one or more of the 30 days preceding the survey. Current use prevalence estimates and 95% confidence intervals (CI) for each product are presented overall and by sex, race/ethnicity, and grade level in **Table 2**. Overall, 11.0% of New Jersey high school students had used at least one tobacco product within 30 days prior to the survey and 3.9% had used at least one combustible product; 3.2% of students reported use of two or more products in the 30 days preceding the survey. The most common currently used product was e-cigarettes (9.3%) followed by cigars (1.9%) and hookah (1.7%). Prevalence of current cigarette use (1.0%) was low, and just under a third (32.4%, 95% CI 14.0-50.7) of students currently using cigarettes reported that they usually smoked menthol cigarettes.

More males than females reported current use of all products except for e-cigarettes (7.9% vs 10.7%). Current hookah use was highest among non-Hispanic Black students (4.2%), and current e-cigarette use was highest among Hispanic students (10.3%) followed by non-Hispanic multiracial students (10.2%). Current use across all products was lowest among 9th graders. Current use of any tobacco product by 9th graders (6.4%) was notably different compared to 12th graders (14.2%). This difference was further observed when comparing 9th to 12th graders' current use of any combustible products (1.9% vs 5.1%) and e-cigarettes (5.7% vs 11.9%).

Table 2. Current (Past 30-days) Use of Tobacco Products, NJYTS 2022

	Cigarette	Cigar	SLT	Hookah	E-cig	Nicotine Pouch	Poly Use	Any combustible	Any product
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Sex									
Male	1.2 (0.5-1.8)	2.8 (1.9-3.7)	0.8 (0.2-1.3)	1.9 (1.1-2.7)	7.9 (6.2-9.6)	1.8 (1.0-2.6)	4.0 (2.9-5.1)	5.0 (3.8-6.2)	10.1 (8.2-11.9)
Female	0.9 (0.2-1.5)	1.0 (0.4-1.6)	0.1 (0.0-0.3)	1.5 (0.8-2.3)	10.7 (8.7-12.7)	0.9 (0.2-1.5)	2.5 (1.5-3.5)	2.9 (1.8-3.9)	11.9 (9.7-14.2)
Race/Ethnicity	7								
NH White	1.3 (0.3-2.3)	2.5 (1.4-3.5)	0.2 (0.0-0.6)	0.7 (0.0-1.5)	9.3 (6.9-11.7)	1.2 (0.4-2.0)	3.4 (2.1-4.7)	4.0 (2.5-5.4)	10.4 (7.8-13.1)
NH Black	0.2 (0.0-0.7)	2.2 (0.7-3.7)	0.8 (0.0-1.8)	4.2 (1.7-6.7)	9.0 (6.0-12.1)	2.4 (0.4-4.4)	4.5 (2.0-7.1)	5.8 (3.2-8.3)	12.2 (8.1-16.3)
Hispanic	1.0 (0.2-1.9)	1.3 (0.5-2.0)	0.6 (0.0-1.3)	2.0 (1.1-2.9)	10.3 (8.3-12.4)	1.0 (0.2-1.9)	2.6 (1.5-3.7)	3.5 (2.2-4.7)	12.1 (9.9-14.3)
NH Asian	1.1 (0.0-2.4)	0.7 (0.0-1.6)	0.0 (0.0-0.0)	1.8 (0.3-3.2)	5.1 (2.5-7.6)	0.4 (0.0-1.1)	2.2 (0.5-3.8)	2.6 (1.0-4.1)	6.0 (3.0-8.9)
NH Other	0.0 (0.0-0.0)	4.2 (0.0-12.4)	0.0 (0.0-0.0)	0.0 (0.0-0.0)	7.4 (0.0-17.8)	0.0 (0.0-0.0)	4.2 (0.0-12.4)	4.2 (0.0-12.4)	17.4 (0.0-17.8)
NH Multi	0.0 (0.0-0.0)	1.9 (0.0-4.5)	1.0 (0.0-2.9)	2.0 (0.0-4.9)	10.2 (4.9-15.6)	2.8 (0.0-6.1)	2.9 (0.0-6.1)	3.1 (0.0-6.6)	14.4 (8.5-20.3)
Grade									
9	0.7 (0.0-1.6)	0.6 (0.1-1.1)	0.0 (0.0-0.0)	1.2 (0.0-2.3)	5.7 (3.1-8.2)	0.6 (0.0-1.6)	1.8 (0.4-3.3)	1.9 (0.6-3.2)	6.4 (3.5-9.3)
10	0.7 (0.0-1.4)	2.3 (1.2-3.3)	0.3 (0.0-0.7)	1.4 (0.1-2.7)	8.8 (6.2-11.3)	1.2 (0.3-2.0)	3.3 (1.9-4.7)	3.9 (2.4-5.5)	10.2 (7.1-13.3)
11	0.5 (0.0-1.1)	2.7 (1.3-4.1)	0.7 (0.0-1.6)	2.7 (1.3-4.1)	11.3 (9.1-13.6)	1.1 (0.2-2.1)	3.5 (1.9-5.1)	5.1 (3.3-6.9)	13.6 (10.9-16.4)
12	2.2 (0.7-3.8)	2.2 (0.9-3.5)	0.7 (0.0-1.5)	1.7 (0.8-2.7)	11.9 (9.0-14.7)	2.3 (1.0-3.6)	4.4 (2.8-6.1)	5.1 (3.3-6.8)	14.2 (11.2-17.2)
Overall	1.0 (0.5-1.6)	1.9 (1.3-2.5)	0.4 (0.1-0.7)	1.7 (1.1-2.3)	9.3 (7.9-10.7)	1.3 (0.8-1.8)	3.2 (2.4-4.0)	3.9 (3.1-4.8)	11.0 (9.4-12.5)

SLT: Smokeless tobacco (snuff, chew, or snus); E-cig: Electronic cigarette; Poly use: use of 2+ products; Combustible: cigarette, cigar, hookah; CI: 95% Confidence Interval; NH: Non-Hispanic; Multi: Multiracial

E-cigarette Behaviors

E-cigarette use characteristics among students who reported current use are presented in **Table 3**. The most common type of e-cigarette used in the past 30 days were disposables (76.6%), and nearly all (95.8%) of high school students currently using e-cigarettes were using flavored e-cigarettes in 2022. The most common e-cigarette flavor was fruit (65.5%), followed by sweet, candy-like (34.1%) and mint or wintergreen (32.7%). When asked about the brand used most often, the most common reported brand was Lava (34.8%), followed by Flair (11.1%) but 20.0% of students currently using e-cigarettes did not know the brand. When asked about the substances contained in their e-cigarettes, students largely reported nicotine only (40.4%) or both THC and nicotine (32.9%); 15.2% of students using e-cigarettes did not know what substances were in their devices.

% (95% CI)

Table 3. E-cigarette use behaviors among students who used e-cigarettes in the past 30 days, NJYTS 2022

	70 (9370 CI ₎
Type of e-cigarette	
Disposable	76.6 (71.2-82.0)
Pre-filled or refillable pods or cartridges	6.0 (2.9-9.1)
Tank	3.4 (1.5-5.3)
I don't know the type	12.3 (7.7-17.0)
Flavorab	
Any flavor use ^c	95.8 (93.7-97.9)
Fruit	65.5 (58.6-72.3)
Sweet, candy-like	34.1 (28.8-39.5)
Mint or wintergreen	32.7 (26.2-39.2)
Menthol	12.9 (8.9-16.8)
Regular tobacco	3.5 (1.6-5.5)
Alcohol or wine	3.2 (1.1-5.3)
Other	5.0 (2.5-7.6)
Brand used most oftenb	
Lava	34.8 (28.2-41.4)
Flair	11.1 (6.7-15.5)
Puff Bar	8.2 (5.1-11.3)
Hyde	3.6 (1.5-5.8)
Elf Bard	3.6 (0.9-6.3)
Air Bar	2.1 (0.4-3.8)
YME or UNC	1.1 (0.0-2.3)
JUUL	0.9 (0.8-1.1)
Logic	0.6 (0.0-1.5)
Vuse	0.5 (0.0-1.4)
Eonsmoke	0.5 (0.0-1.3)
Blu	0.4 (0.0-1.3)
Myle	0.4 (0.0-1.3
HQD	0.0 (0.0-0.0)
Not sure / I don't know the brand	20.0 (15.1-24.9)
Some other brand not listed here (Please specify):	5.6 (2.3-8.9)
I did not use a usual brand	4.9 (2.2-7.6)
Substances the e-cigarettes contain	
Nicotine	40.4 (35.2-45.6)

Both nicotine and THC	32.9 (27.6-38.2)
Neither	6.2 (2.3-10.1)
THC	3.0 (1.0-5.0)
I don't know	15.2 (10.7-19.6)

^aNot mutually exclusive

E-cigarette Access

Sources of e-cigarette access among students who reported current use are presented in **Table 4**. Purchasing e-cigarettes directly in the past 30 days was the most common way students got e-cigarettes (35.2%), closely followed by getting them from a friend (32.4%). Among students who reported buying e-cigarettes themselves in the month preceding the survey, gas stations or convenience stores (52.4%), and vape or tobacco shops (41.5%) were the most frequently reported sources.

Table 4. E-cigarette access among students who used e-cigarettes in the past 30 days, NJYTS 2022

	% (95% CI)
How students got e-cigarettes ^{ab}	
I bought them myself	35.2 (28.4-42.0)
I got them from a friend	32.4 (27.6-37.3)
Someone offered them to me	24.5 (18.6-30.3)
I asked someone to give me some	18.8 (13.8-23.7)
I had someone else buy them for me	18.4 (13.4-23.3)
I got them from a family member	8.6 (4.8-12.5)
I took them from a store or another person	7.9 (4.3-11.6)
I got them in some other way	5.0 (2.3-7.7)
Where e-cigarettes were purchasedac	
A gas station or convenience store	52.4 (41.5-63.2)
A vape shop or tobacco shop	41.5 (30.4-52.6)
I bought them from another person (a friend, family member, or someone else)	20.5 (11.6-29.5)
A drugstore	10.3 (2.8-17.7)
A grocery store	8.5 (1.5-15.6)
A mall or shopping center kiosk/stand	8.4 (3.9-12.9)
Through the mail	5.8 (0.4-11.2)
On the internet (such as a product website or store website like eBay or Facebook Marketplace)	4.1 (0.4-7.8)
Through a delivery service (such as DoorDash or Postmates)	3.4 (0.0-8.5)
A vending machine	2.8 (0.0-6.1)
Some other place not listed here	5.1 (1.6-8.5)

^aNot mutually exclusive

bWritten entries reflecting an existing response option were recoded

cUse of any flavor including mint or wintergreen, menthol, fruit, alcohol or wine, sweet/candy-like, or other; excludes tobacco flavor

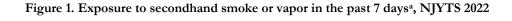
dElf Bar was not originally listed as a response option, but it was the most written entry for "some other brand not listed here"

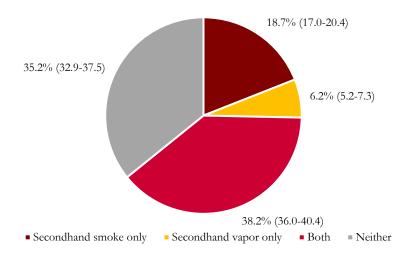
bWritten entries reflecting an existing response option were recoded

cAmong students who indicated they bought e-cigarettes themselves

Secondhand Smoke and Vapor

Reported exposure to secondhand smoke from someone else's tobacco products and vapor from someone else's ecigarette in the home, vehicles, at school, at work, and in indoor or outdoor public places in the past seven days are presented in **Figure 1**. About two-thirds of students were exposed to secondhand smoke or vapor (63.9%). Comprising most of these exposures, 38.2% of high school students reported exposure to both secondhand smoke and vapor in the week preceding the survey. Other students were exposed to secondhand smoke only (18.7%) or secondhand vapor only (6.2%). On the contrary, about one-third (35.2%) of high school students reported they were neither exposed to secondhand smoke nor vapor.





^aStudents were asked about exposure to someone else's tobacco smoke or vapor in the home, vehicles, at school, at work, and in indoor or outdoor public places

Cigarette Access

Table 5 displays sources of cigarette access. In contrast to how students access e-cigarettes, the most frequently reported source of cigarettes in the past 30 days was getting them from a friend (50.7%), followed by purchasing cigarettes directly (31.1%).

Table 5. Cigarette use behaviors among students who used cigarettes in the past 30 days, NJYTS 2022

70 (3370 (31)
50.7 (33.2-68.3)
31.1 (19.4-42.7)
29.7 (15.6-43.7)
11.7 (2.5-20.9)
11.2 (4.2-18.2)
7.9 (0.0-20.0)
7.3 (0.5-14.0)
9.0 (2.2-15.9)

^aNot mutually exclusive

Summary

In 2022, use of combustible cigarettes—the most dangerous tobacco products—among young people in New Jersey was remarkably low, representing an important public health achievement. The prevalence of current cigarette smoking among high school students (1.0%, 95% CI 0.5-1.6) was half the national prevalence (2.0%, 95% CI 1.7-2.5)¹. Overall, 11.0% (95% CI 9.4-12.5) of high school students had used at least one tobacco product within a 30-day period, lower than the national prevalence of 16.5% (95% CI 14.6-18.5). However, there are sociodemographic disparities in prevalence that represent continued challenges to tobacco control efforts in New Jersey.

Among New Jersey youth, more males than females reported current use across most tobacco products, and male students (2.8%, 95% CI 1.9-3.7) were significantly more likely than female students (1.0%, 95% CI 0.4-1.6) to report current cigar use, which is consistent with findings from the NYTS¹. By race and ethnicity, non-Hispanic Black students experienced the highest prevalence of current combustible product use (5.8%, 95% CI 3.2-8.3), and current hookah use was significantly more prevalent among non-Hispanic Black students (4.2%, 95% CI 1.7-6.7) than non-Hispanic White students (0.7%, 95% CI 0.0-1.5). Disparities in combustible product use are of particular concern, given that they pose the greatest levels of health risks compared to noncombustible products². Meanwhile, non-Hispanic Asian students had the lowest prevalence of tobacco use overall (6.0%, 95% CI 3.0-8.9), as well as combustible tobacco use (2.6%, 95% CI 1.0-4.1) and e-cigarette use (5.1%, 95% CI 2.5-7.6). By grade level, current use across all tobacco products was consistently lowest among 9th graders and tended to increase with grade level. Students in 9th grade (6.4%, 95% CI 3.5-9.3) were significantly less likely to have used at least one tobacco product within a 30-day period compared to students in 12th grade (14.2%, 95% CI 11.2-17.2), and 9th graders had significantly lower prevalence of combustible product use (1.9%, 95% CI 0.6-3.2) compared to 12th graders (5.1%, 95% CI 3.3-6.8).

E-cigarettes were the most prevalent tobacco product by far. Nearly one out of five (19.7%, 95% CI 17.4-21.9) New Jersey high school students reported ever using e-cigarettes and 9.3% (95% CI 7.9-10.7) had used them in the past 30 days, lower than the national average of current e-cigarette use (14.1%, 95% CI 12.4-16.0)¹. The e-cigarette product landscape has evolved to circumvent 2020 federal-level flavor restrictions on once-popular cartridge- and pod-based e-cigarettes such as Juul³. Disposable devices, not restricted through the FDA's 2020 policy action, skyrocketed in sales from 2020 to 2022⁴ and have emerged as the top product for New Jersey high schoolers who report current e-cigarette use (76.6%, 95% CI 71.2-82.0), surpassing the national prevalence (57.2%, 51.7-62.6)⁵. Disposable devices are convenient and discreet to use since they are completely self-contained⁶ and the appeal to young people may be traced to their color and taste; these products come in bright colors and a variety of sweet flavors⁻.

Despite New Jersey's April 2020 flavor ban which restricts the sale of all types of flavored e-cigarettes, including disposable products⁸, nearly all New Jersey high school students currently using e-cigarettes use flavored products (95.8%, 95% CI 93.7-97.9) similar to that reported among high school students in the 2022 NYTS (85.5%, 95% CI 82.9-87.8)⁵. Fruit dominates as the top flavor (65.5%, 95% CI 58.6-72.3), followed by sweet, candy-like (34.1%, 95% CI 28.8-39.5) and mint or wintergreen (32.7%, 95% CI 26.2-39.2) flavors. Given evidence that flavors contribute to experimentation and continued use of e-cigarettes in young people⁹, the predominance of flavored e-cigarette use is especially concerning.

As of November 1, 2017, New Jersey became the third state to raise the purchasing age for tobacco products to 21¹⁰. Yet, students still reported purchasing certain tobacco products themselves in the month preceding this 2022 survey. Students using e-cigarettes reported directly purchasing e-cigarettes as the most common method of obtaining them (35.2%, 95% CI 28.4-42.0), and students using cigarettes reported directly purchasing cigarettes as the second most common method of obtaining them (31.1%, 95% CI 19.4-42.7). Notably, Lava, a New Jersey-based company which produces flavored, disposable e-cigarettes, was the top usual e-cigarette brand reported by students who used e-cigarettes in the past 30 days (34.8%, 95% CI 28.2-41.4). This differs from the NYTS, in which Puff Bar was reported the top usual brand used (14.0%, 95% CI 10.9-17.9)⁵. This may reflect the popularity of certain e-cigarette brands in regions where their distribution or reach is specific to the area.

Limitations

These results are representative of students at public high schools in New Jersey and may not extend to those in private or alternative schools, as these school types were not included in the sampling frame. In addition, while the pivot to electronic survey administration following the COVID-19 pandemic offers numerous advantages over previous paper-and-pencil administration, including the ability to embed product images and skip logic within survey programming, the estimates presented in this report cannot be compared to those from prior NJYTS iterations due to these methodological changes. Finally, given the cross-sectional nature of the NJYTS, these data cannot be used to determine causal associations.

References

- 1. Park-Lee, E., et al., *Tobacco Product Use Among Middle and High School Students United States, 2022.* MMWR Morb Mortal Wkly Rep, 2022. 71(45): p. 1429-1435. Available from: https://pubmed.ncbi.nlm.nih.gov/36355596/.
- 2. Food and Drug Administration. *Health Effects of Tobacco Use*. 2022 March 23, 2022 [cited 2024 January 16]; Available from: https://www.fda.gov/tobacco-products/public-health-education/health-effects-tobacco-use.
- 3. Food and Drug Administration. Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and Other Deemed Products on the Market without Premarket Authorization (Revised): Guidance for Industry. 2020; Available from: https://www.fda.gov/media/133880/download.
- 4. Ali, F.R.M., et al., *E-cigarette Unit Sales by Product and Flavor Type, and Top-Selling Brands, United States, 2020-2022.* MMWR Morb Mortal Wkly Rep, 2023. 72(25): p. 672-677. Available from: https://pubmed.ncbi.nlm.nih.gov/37347717/.
- 5. Cooper, M., et al., *Notes from the Field: E-cigarette Use Among Middle and High School Students United States, 2022.* MMWR Morb Mortal Wkly Rep, 2022. 71(40): p. 1283-1285. Available from: https://pubmed.ncbi.nlm.nih.gov/36201370/.
- 6. Delnevo, C., D.P. Giovenco, and M. Hrywna, Rapid proliferation of illegal pod-mod disposable e-cigarettes. Tobacco Control, 2020: p. tobaccocontrol. Available from: https://dx.doi.org/10.1136/tobaccocontrol-2019-055485.
- 7. Gaiha, S.M., et al., *E-cigarette devices, brands, and flavors attract youth: Informing FDA's policies and priorities to close critical gaps.* Addictive Behaviors, 2022. 126: p. 107179. Available from: https://www.sciencedirect.com/science/article/pii/S0306460321003646.
- 8. *Prohibits sale or distribution of flavored vapor products.* 2020. Available from: https://pub.njleg.state.nj.us/Bills/2018/PL19/425 .PDF.
- 9. Villanti, A.C., et al., Association of Flavored Tobacco Use With Tobacco Initiation and Subsequent Use Among US Youth and Adults, 2013-2015. JAMA Netw Open, 2019. 2(10): p. e1913804. Available from: https://pubmed.ncbi.nlm.nih.gov/31642927/.
- 10. Raises minimum age for purchase and sale of tobacco products and electronic smoking devices from 19 to 21. 2017. Available from: https://pub.njleg.state.nj.us/Bills/2016/PL17/118 .PDF.