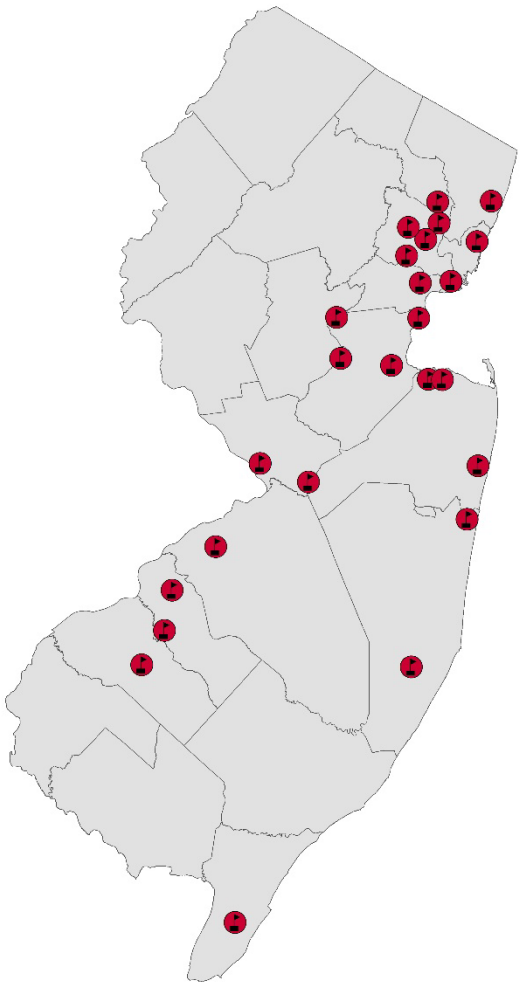
New Jersey Tobacco Point-of-Sale Review

March 2023



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ACKNOWLEDGEMENTS

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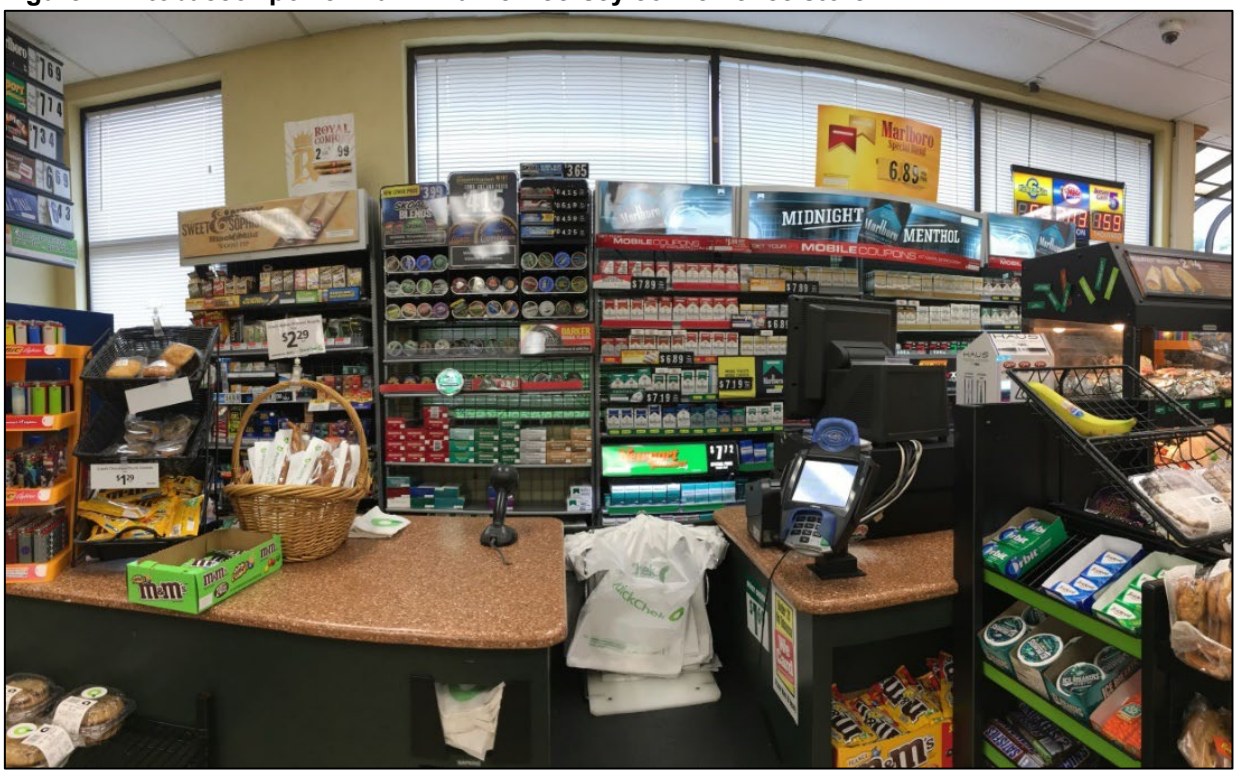
BACKGROUND

The tobacco industry has innovated many advertising methods including color lithography of the pack, skywriting, billboard photolithography, stop-motion animation, and coast to coast radio sponsorship.[1] Prior to the ban on traditional forms of advertisements (e.g., billboards, transit advertisements, sponsorships, and product placement in the media), industry executives were ready to mobilize towards point-of-sale (POS) advertising where their brands could be "dominantly displayed and advertised."[2] It is not that surprising, then, that after the 1998 Master Settlement Agreement (MSA) banned many traditional forms of tobacco advertising, the tobacco industry began investing billions of dollars marketing its products at the point-of-sale. For example, in 2020, cigarette and smokeless tobacco companies spent more than 8.4 billion dollars on product marketing, most of which occurred in the retail setting through price discounting, promotional allowances, and point of sale advertising.[3,4] E-cigarette manufacturers spent 719.9 million dollars on product marketing in 2020 although point of sale advertising was less than one tenth (61.8 million) of total advertising costs due to the product pre-dating the MSA.[5] The tobacco industry provides incentives to retailers to post signage inside and outside of their stores to promote their products. Among the most popular is a "power wall," an interior large shelving display that showcases numerous tobacco products and features company logos and other advertisements (see Figure 1).

Figure 1. A tobacco "power wall" in a New Jersey convenience store



Tobacco advertisements in retail settings have the potential to encourage current users to keep buying tobacco products, entice non-users to start, and perpetuate the idea that smoking is socially acceptable. Exposure to tobacco promotions in stores is also known to influence product use among youth. The tobacco retail environment in areas where youth spend time (e.g., near parks, schools) seems particularly influential. Several studies have documented a consistent relationship between tobacco advertising near schools and cigarette smoking among students.[6,7] Tobacco companies have initiated and increased expenditures in marketing efforts of alternative tobacco products including cigarillos and e-cigarettes at the point-of-sale.[8] Furthermore, exposure to point-of-sale cigarillo advertising was associated with higher odds of current use.[9]

Although rates of cigarette smoking among youth have declined in recent years, use of non-cigarette tobacco products, such as cigars/cigarillos, smokeless tobacco, tobacco-free nicotine pouches, electronic cigarettes (e-cigarettes) and hookah, should continue to be monitored. (Figure 2, below, describes these non-cigarette tobacco products).

Figure 2. Description of non-cigarette tobacco products

Product	Description	Examples
Cigars or cigarillos	Roll of tobacco wrapped in a tobacco leaf or another substance containing tobacco. Products come in many different sizes and some include wooden or plastic tips. Among young people, cigarillos are sometimes used to roll blunts with marijuana. Popular brands include Black & Mild, Swisher Sweets, and Dutch Masters.	
Smokeless tobacco	Typically refers to moist snuff (sometimes called “dip”) and snus (a Swedish type of moist snuff). The user places the shredded or ground tobacco between their lip and their gum. Popular brands include Grizzly, Copenhagen, Skoal and Camel Snus.	
Tobacco-free nicotine pouches	Oral nicotine products are used similarly to snus. Unlike snus, they do not contain leaf tobacco. The products are still derived from tobacco and contain nicotine. Popular brands include Zyn, Velo, and On!.	
Electronic cigarettes (“e-cigarettes”)	A battery-powered device that produces a vapor that the user inhales. The vapor often contains nicotine, flavorings, and other chemicals. E-cigarettes are sold in pods and disposable varieties. Popular brands include JUUL, Vuse, Hyppe and Puff Bar.	
Hookah Tobacco	A mix of tobacco and molasses, with additive flavors, smoked through a single- or multi-stemmed charcoal-heated apparatus. Popular brands include Al Fakher and Starbuzz.	

Data from the 2018 New Jersey Youth Tobacco Survey (NJYTS) showed that while 2.9% of high school students were current cigarette smokers, 17.8% were current users of e-cigarettes, 6.4% were current hookah tobacco users, and 4.0% were current cigar/cigarillo smokers.[10] The promotion of non-cigarette tobacco products such as e-cigarettes, cigars/cigarillos and tobacco-free nicotine pouches in retail settings is understudied, but emerging evidence suggests that these products are advertised in much the same way as cigarettes.[11] Figure 3 highlights the visibility of non-cigarette tobacco product advertising in a New Jersey convenience store.

Figure 3. Non-cigarette tobacco product advertising in a New Jersey convenience store

Recent federal and state actions have attempted to decrease the availability of flavored e-cigarettes. In an effort to curb the use of e-cigarettes among youth and young adults, the U.S. Food and Drug Administration (FDA) issued a prioritized enforcement policy for flavored cartridge-based e-cigarette products, excluding menthol, that did not have premarket authorization, effective February 2020. New Jersey (NJ) also became the first state to ban the sales of all types of flavored e-cigarette products, including menthol and mint, effective April 2020. This report

provides data on flavored e-cigarette, including flavored disposables, availability in New Jersey licensed tobacco retail stores following the implementation of the state's ban on such products.

AIMS

Surveillance of tobacco marketing at the point-of-sale near high schools can provide insight into factors that may contribute to elevated rates of tobacco use among students. This project collected repeated point-of-sale data (interior and exterior of stores) drawn from stores surrounding a representative sample of New Jersey high schools (n=41) between 2015 and 2022. We present the prevalence of tobacco product availability and advertising across all schools, as well as differences by store type and locality (urban vs. non-urban school districts) for 2022 as well as over the last four years.

METHODS

In 2015, we mapped the locations of the 41 high schools participating in the 2014 NJYTS and drew a half-mile buffer around each school. The half-mile radius (2,640 ft.) was chosen as the cutoff based on the premise that this was the most convenient distance that students would travel before, during, and after school. Of the 41 schools participating in the 2014 NJYTS, 15 (36.6%) had no tobacco retailers within a half-mile radius and these were excluded from data collection. The remaining 26 schools had a total of 211 licensed tobacco retailers within a half-mile radius. In 2017, one high school changed location, but we repeated audits in the two licensed tobacco retailers located nearby. In 2019, a school with one tobacco retailer within a half-mile radius was omitted from the sample due to the store's permanent closure, bringing the total number of schools with at least one tobacco retailer within a half-mile radius to 25.

We attempted audits at all 211 licensed tobacco retailers identified in the original sample from 2015. Since 2015, a number of stores either closed or no longer sold tobacco products. In 2018, to examine trends in point-of-sale tobacco product availability and advertising, we limited

audits to stores where data was collected in the three previous years. In 2022 we added 12 stores to the sample that had a New Jersey tobacco license and fell within the half-mile buffer of high schools already in the sample. Table 1 details the number of completed store audits by year. In 2020, we only collected data on tobacco product availability to minimize time in the store during a pandemic.

Table 1. Completed New Jersey point-of-sale audits by year

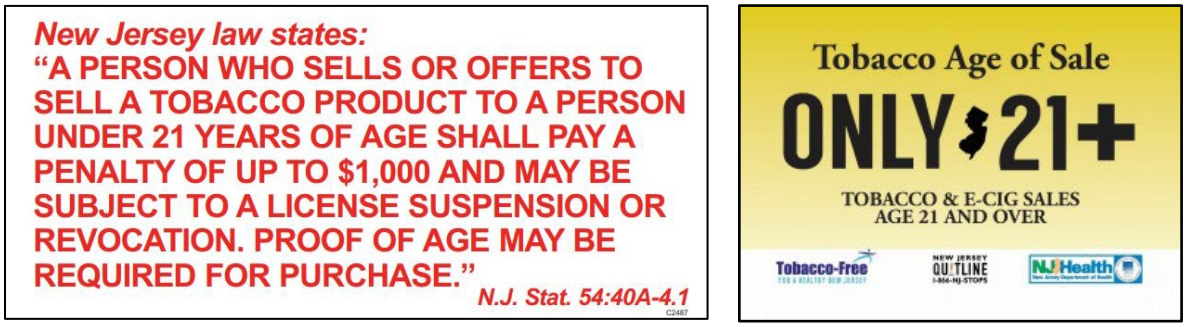
POS Data Collection Year	Completed Audits
2015	191
2016	191
2017	191
2018	174
2019	156
2020	143
2021	145
2022	156

Using a Qualtrics survey on a smartphone device, trained auditors collected detailed information each year on interior and exterior advertisements of tobacco products, tobacco product availability, and presence of tobacco age of sale signage. In addition, 18 stores (11.5%) were independently coded by two raters to establish reliability. Each store audit took approximately 20 minutes.

Given the shifts in the tobacco marketplace, the survey underwent modifications over the years to include availability of emerging tobacco products and retail policy changes. For example, in 2018 we added questions pertaining to the availability of tobacco age of sale signs in stores. Figure 4 shows the two age of sale signs recorded by auditors that were mandatory and non-mandatory; the yellow “Only 21+” sign was distributed by the New Jersey Department of Health to licensed tobacco retailers just prior to NJ’s Tobacco 21 law becoming effective in November 2017. Also, in 2018 we added items that measured the availability of JUUL products. In 2019, we added items to assess advertising and availability of tobacco-free nicotine pouches. In 2020 we added items to assess availability of flavored and non-flavored disposable e-cigarettes. In 2022

we added items to assess the availability of nicotine replacement therapy (NRT) products and state-mandated signage of NRT and NJ Quitline.

Figure 4. Required New Jersey licensed tobacco retailer age of sale (left) and non-mandatory New Jersey Department of Health tobacco age of sale signage (right)



For this project, an "advertisement" was defined as an industry-made sign featuring a company's logo and/or an image of the product. Signs that said "Cigarettes sold here," for example, were not included. Only advertisements that were clearly visible and larger than the size of an index card (3" x 5") were counted. Smaller ads are burdensome for data collectors to locate and count, but more importantly, they may be less noticeable to youth visiting the stores. Figure 5 highlights (in red) examples of tobacco advertisements that would be counted for this project.

Figure 5. Examples of advertisements that would qualify for inclusion

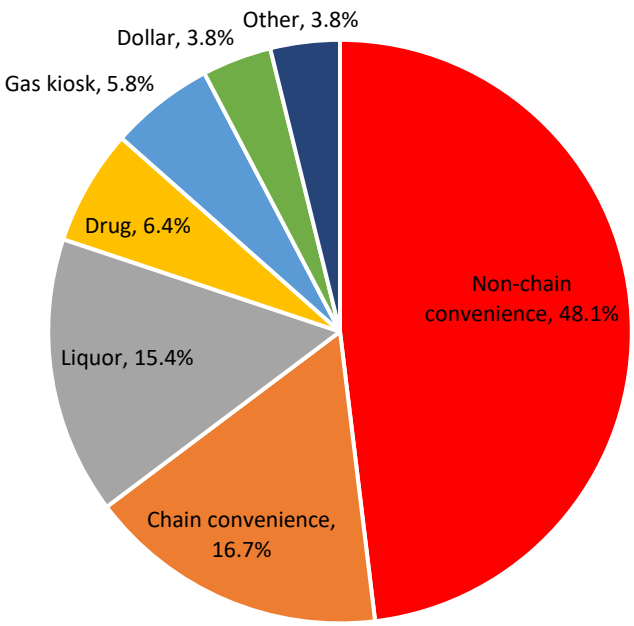
For each of the tobacco products studied in this project (e.g., cigarettes, cigars/cigarillos, smokeless tobacco, e-cigarettes, tobacco-free nicotine pouches, and hookah tobacco), we present data on the prevalence of exterior and interior advertisements and product availability across all stores in the sample. Additionally, we describe differences by store type (i.e., convenience stores, liquor stores, drug stores, gas station kiosks, dollar stores, "other" types of stores) and locality (urban vs. non-urban school districts). Urban districts were defined as municipalities with more than 10,000 residents per square mile (US Census, 2010) [9] and where schools had greater than 50% non-white enrollment.[13]

RESULTS

In 2022, we successfully audited 156 of the 174 stores in the sample (89.6%). Of the 19 stores we were unable to audit, four were unable to be found, 13 were permanently closed, and one store owner asked us to leave. This completion rate is in line with our collection efforts in 2015 (89.7%), 2016 (89.7%), 2017 (90.5%), 2018 (93.7%), 2019 (89.6%), and 2021 (92.5%). The number of stores audited for each school ranged from one to 34, and there was an average of 6.2 tobacco retailers within a half-mile radius per high school.

Figure 6 presents the distribution of store types in the sample. The most common store type was non-chain convenience store (48.1%), followed by chain convenience stores (16.7%; e.g., Wawa, QuickChek, 7-Eleven, with or without gas station attached), liquor stores (15.8%), drug stores (6.4%), gas station kiosks (5.8%), dollar stores (3.8%), and other stores (3.8%).

Figure 6. Store type %, 2022 (n=156)



The sample contained a total of 25 schools. Six of these schools were located in urban districts and the remaining 19 were located in non-urban districts. Over two-thirds of the 94 stores located in urban districts were non-chain convenience stores. Liquor stores (12.8%) were the second most common store type in urban districts. In non-urban districts, chain convenience (30.6%), non-chain convenience (19.4%), and liquor stores (19.4%) were the most common store types (Table 2).

Table 2. Store type by district type, 2022

	Urban district	**Non-urban district**
Store type	N=94 (%)	N=62 (%)
Convenience, non-chain	63 (67%)	12 (19.4%)
Convenience, chain	7 (7.4%)	19 (30.6%)
Liquor store	12 (12.8%)	12 (19.4%)
Drug store	4 (4.3%)	6 (9.7%)
Gas station, kiosk only	0 (0%)	9 (14.5%)
Dollar store	4 (4.3%)	2 (3.2%)
Other	4 (4.3%)	2 (3.2%)
Total	**94 (100%)**	**62 (100%)**

Cigarettes

Table 3 presents the availability of cigarettes and the prevalence of cigarette ads by store type. Cigarettes were commonly available across all store types, and every store that sold cigarettes also sold menthol cigarettes. Only 12 stores in the sample (7.7.%) did not sell cigarettes, and 10 of those stores had no tobacco products available for sale. 30% of all stores had any exterior cigarette advertisements, and exterior advertising was more prevalent among both non-chain (42.7%) and chain (34.6%) and convenience stores. Drug stores and "other" stores had no exterior cigarette ads. Cigarette advertising was more common in the interior (51.9%) of stores. Interior ads were most common in chain convenience stores (84.6%) and dollar stores (66.7%). Despite having no exterior cigarette ads, drug stores (40%) and "other" stores (50%) had interior cigarette ads. Exterior menthol ads were observed in 23.1% of stores in the sample, and these ads were most common in gas stations kiosks (33.3%), chain convenience stores (30.8%), and non-chain convenience stores (30.7%). These ads weren't present in drug stores, dollar stores, and stores categorized as "other." Over a third of stores in the sample had interior menthol cigarette advertisements. These ads were most prevalent in chain convenience stores (30%), and they were absent from dollar stores and "other" stores.

Table 3. Presence of cigarette ads and availability in stores by store type, 2022

Store type	Availability %	Exterior ads %	Exterior menthol ads %	Interior Ads %	Interior menthol ads %
Non-chain convenience (n=75)	96.0	42.7	30.7	50.7	40.0
Chain convenience (n=26)	100.0	34.6	30.8	84.6	73.1
Liquor (n=24)	95.8	8.3	8.3	41.7	25.0
Drug (n=10)	70.0	0.0	0.0	40.0	30.0
Gas kiosk (n=9)	77.8	33.3	33.3	0.0	0.0
Dollar (n=6)	83.3	16.7	0.0	66.7	0.0
Other (n=6)	66.7	0.0	0.0	50.0	0.0
Overall (n=156)	**92.3**	**30.1**	**23.1**	**51.9**	**37.2**

Tables 4 and 5 describe the volume of exterior and interior cigarette ads by store type. Only 3.2% of stores had five or more exterior cigarette ads, and this category only included chain

(11.5%) and non-chain convenience stores (2.7%). The majority of the stores with exterior cigarette ads in the sample had 1 to 4 ads (26.9%). The prevalence of stores with five or more interior cigarette ads was much higher (19.9%). Five or more interior cigarette advertisements were observed most in chain convenience (73.1%) and drug stores (30%). 32.1% of all stores in the sample had 1 to 4 interior cigarette ads.

Table 4. Number of exterior cigarette ads in stores by store type, 2022

Store type	0 ads %	1 to 4 ads %	5 or more ads %
Non-chain convenience (n=75)	57.3	40.0	2.7
Chain convenience (n=26)	65.4	23.1	11.5
Liquor (n=24)	91.7	8.3	0.0
Drug (n=10)	100.0	0.0	0.0
Gas kiosk (n=9)	66.7	33.3	0.0
Dollar (n=6)	83.3	16.7	0.0
Other (n=6)	100.0	0.0	0.0
Overall (n=156)	**69.9**	**26.9**	**3.2**

Table 5. Number of interior cigarette ads in stores by store type, 2022

Store type	0 ads %	1 to 4 ads %	5 or more ads %
Non-chain convenience (n=75)	49.3	41.3	9.3
Chain convenience (n=26)	15.4	11.5	73.1
Liquor (n=24)	58.3	33.3	8.3
Drug (n=10)	60.0	10.0	30.0
Gas kiosk (n=9)	100.0	0.0	0.0
Dollar (n=6)	33.3	66.7	0.0
Other (n=6)	50.0	50.0	0.0
Overall (n=156)	**48.1**	**32.1**	**19.9**

Figures 7 and 8 presents the differences in the prevalence and volume of cigarette advertising in stores in urban areas and non-urban districts. Urban stores had a higher prevalence of exterior ads and a slightly higher prevalence of exterior menthol ads. Stores in non-urban areas had much a higher prevalence for both menthol and non-menthol interior cigarette ads. Non-urban areas also had a much higher prevalence of stores with five or more ads for both the exterior and interior categories. Over a third of the non-urban stores (33.9%) had five or more interior cigarette

ads and 8.1% of them had five or more interior ads. Conversely, no urban store had five or more exterior cigarette ads and only 10.6% had five or more interior ads.

Figure 7. Presence of cigarette ads in stores, by district type (%), 2022

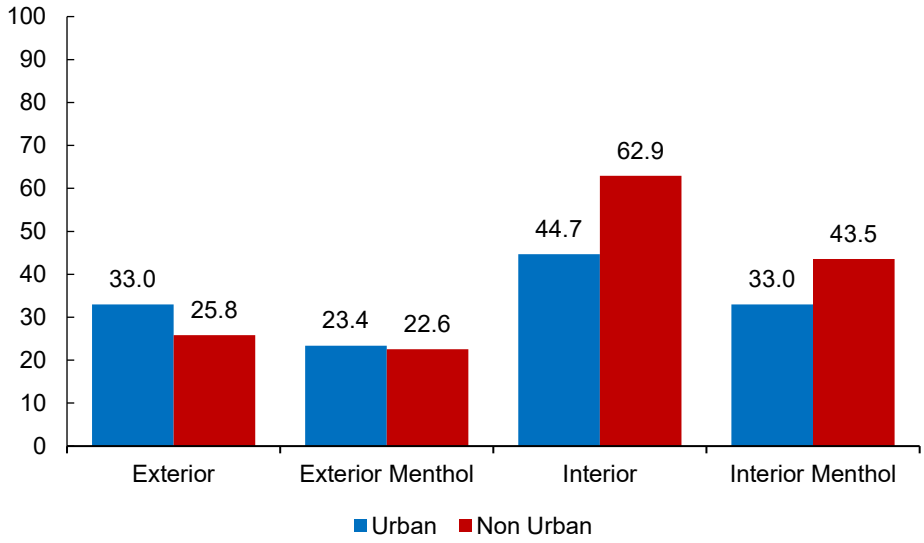
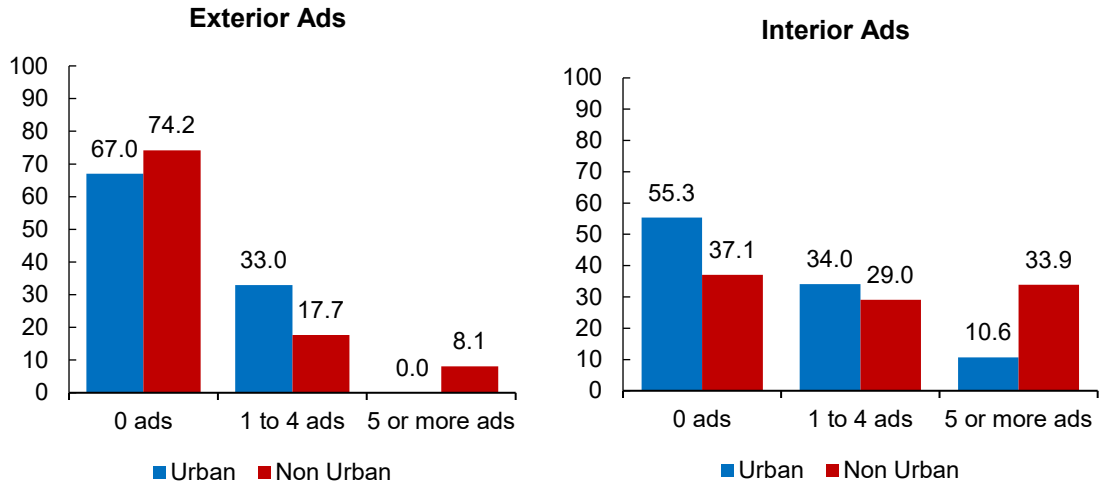


Figure 8. Number of exterior and interior cigarette ads in stores, by district type (%), 2022



Cigars/cigarillos

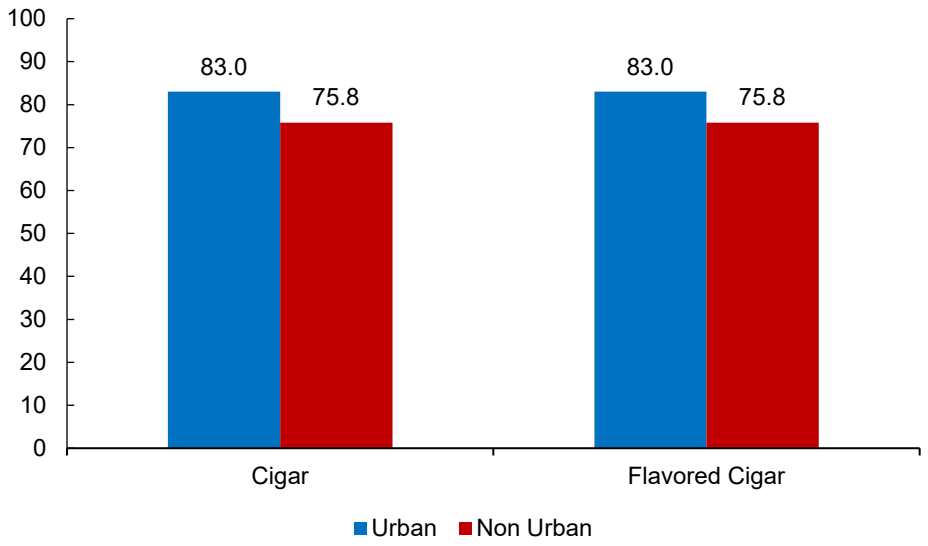
Cigars/cigarillos were the second most commonly available tobacco products found in stores. 80.1% of all stores in the sample sold cigar products, and all of those also sold flavored cigars. Cigars were most available in chain (96.2%) and non-chain convenience stores (88%), and drug stores were the only store type that sold cigars in less than half of their stores (30%).

Flavored and un-flavored cigars were more available in urban stores compared to non-urban stores (Figure 9).

Table 6. Cigar/cigarillo availability by store type, 2022

Store type	Cigar availability %	Flavored cigar availability %
Non-chain convenience (n=75)	88.0	88.0
Chain convenience (n=26)	96.2	96.2
Liquor (n=24)	79.2	79.2
Drug (n=10)	30.0	30.0
Gas kiosk (n=9)	55.6	55.6
Dollar (n=6)	66.7	66.7
Other (n=6)	50.0	50.0
Overall (n=156)	**80.1**	**80.1**

Figure 9. Cigar and flavored cigar availability by district type %, 2022



Cigars were also the second most advertised tobacco product. However, cigar advertisements were much less prevalent than cigarette advertisements. Table 7 shows that exterior cigar ads were found in a fifth of stores (20.5%), and 29.5% of the stores had interior

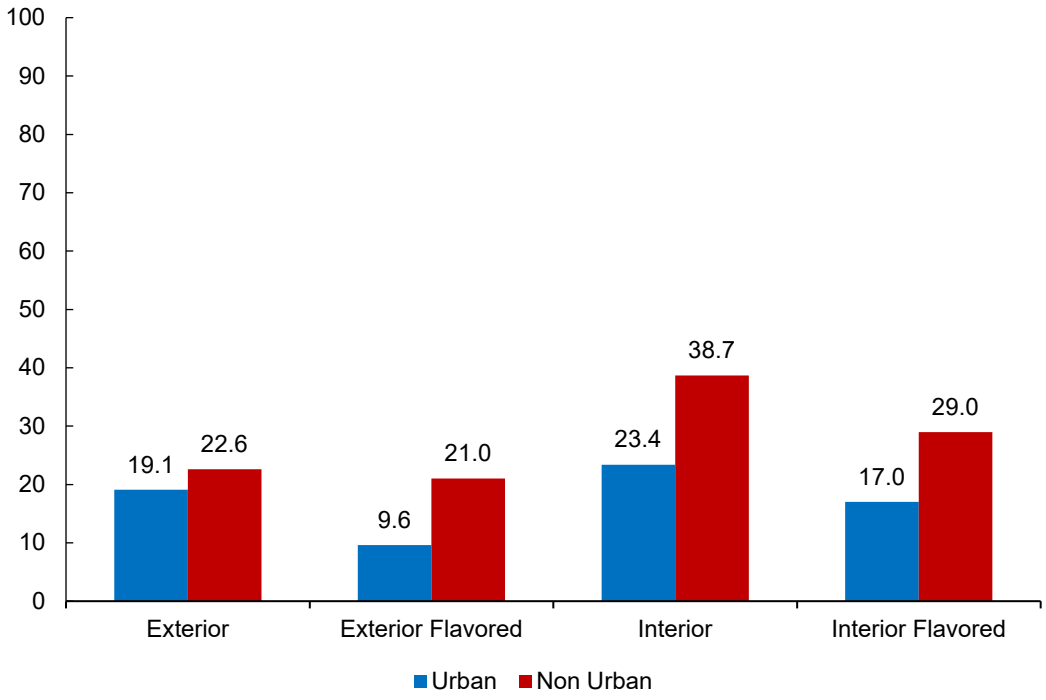
cigar ads. Chain convenience (30.8%) and non-chain convenience stores (28%) had the largest prevalence of exterior cigar advertisements, and dollar and drug stores had no exterior cigar ads. Dollar stores (66.7%) and chain convenience stores (46.2%) had the highest prevalence of interior cigar ads. Flavored cigar advertisements were observed in 14.1% of store exteriors and 21.8% of interiors. Exterior flavored cigar ads were most prevalent in chain-convenience stores (23.1%), and they were absent in liquor, drug, and "other" stores. Interior flavored cigar ads were most prevalent in dollar stores (50%) and chain convenience stores (30.8%). However, these ads were not found in drug stores and stores labeled as "other."

Table 7. Presence of cigar/cigarillo ads in stores by store type, 2022

	Exterior ads	**Exterior flavored ads**	**Interior ads**	**Interior flavored ads**
Store type	%	%	%	%
Non-chain convenience (n=75)	28.0	20.0	28.0	24.0
Chain convenience (n=26)	30.8	23.1	46.2	30.8
Liquor (n=24)	4.2	0.0	29.2	20.8
Drug (n=10)	0.0	0.0	0.0	0.0
Gas kiosk (n=9)	11.1	11.1	0.0	0.0
Dollar (n=6)	0.0	0.0	66.7	50.0
Other (n=6)	16.7	0.0	33.3	0.0
Overall (n=156)	**20.5**	**14.1**	**29.5**	**21.8**

As shown in Figure 10, exterior and interior ads were more prevalent in stores located in non-urban areas (22.6%, 38.7% vs 19.1%, 23.4%, respectively). This trend also applied to flavored ads, as the prevalence of exterior and interior flavored cigars was higher in non-urban stores than urban stores (21%, 29% vs 9.6%, 17%, respectively).

Figure 10. Presence of cigar ads in stores by district type %, 2022



Smokeless Tobacco

Although smokeless tobacco products (including snus and snuff) were sold in only 23.1% of all stores in the sample, they were commonly available in chain convenience stores (80.8%). The product was not commonly available in the other store types.

Table 8. Smokeless tobacco availability in stores by store type, 2022

Store type	Smokeless tobacco availability %
Non-chain convenience (n=75)	10.7
Chain convenience (n=26)	80.8
Liquor (n=24)	8.3
Drug (n=10)	30.0
Gas kiosk (n=9)	0.0
Dollar (n=6)	33.3
Other (n=6)	0.0
Overall (n=156)	**23.1**

Table 9 shows the prevalence of smokeless tobacco advertising across the different store types. Exterior smokeless tobacco ads were rare (2.6%), and they were only found in chain

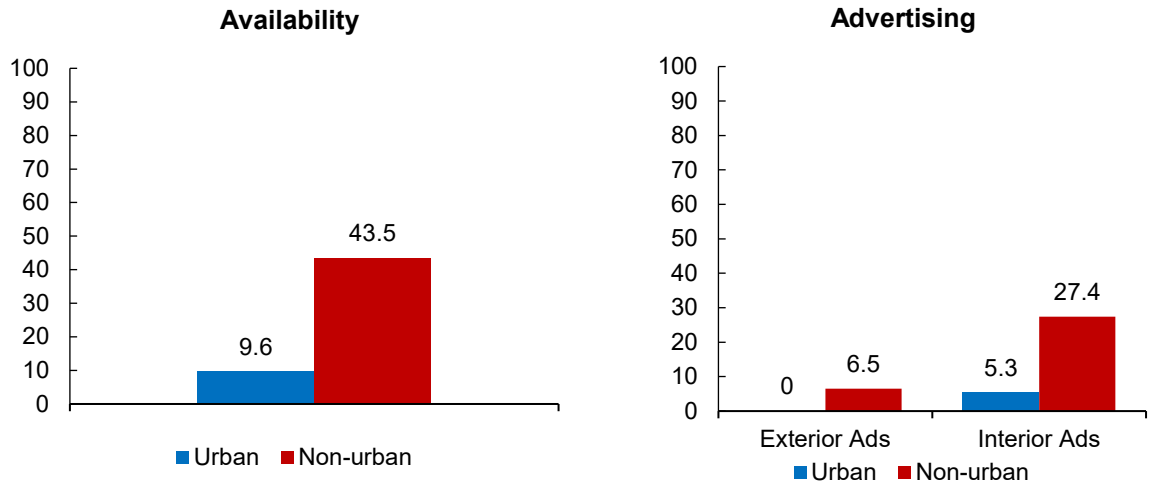
convenience (7.7%) and non-chain convenience stores (2.7%). Interior smokeless ads were much more common, but they were still only found in 14.1% of stores in the sample. These ads were only found in chain convenience (69.2%), dollar (33.3%), and non-chain convenience stores (2.7%).

Table 9. Smokeless tobacco ads in stores by store type, 2022

	Exterior ads	Interior ads
Store type	%	%
Non-chain convenience (n=75)	2.7	2.7
Chain convenience (n=26)	7.7	69.2
Liquor (n=24)	0.0	0.0
Drug (n=10)	0.0	0.0
Gas kiosk (n=9)	0.0	0.0
Dollar (n=6)	0.0	33.3
Other (n=6)	0.0	0.0
Overall (n=156)	**2.6**	**14.1**

Figure 11 displays the advertising prevalence and availability of smokeless tobacco by district type. Exterior smokeless tobacco ads were not observed in stores located in urban areas. They were also rare in non-urban stores, as only 6.5% of those stores had any exterior ads for this product type. Interior ads were more prevalent for both district types. 5.3% of stores in urban areas had any interior smokeless tobacco ads, and the proportion for stores in non-urban areas was almost 5 times higher (27.4%). Smokeless tobacco availability followed a similar trend to that of the advertising prevalence. 9.6% of urban stores sold smokeless tobacco compared to 43.5% of non-urban stores.

Figure 11. Advertising and availability of smokeless tobacco in stores by district type %, 2022



Tobacco-Free Nicotine Pouches

Almost a fifth of all stores in the sample sold tobacco-free nicotine pouches (19.2%). These were most commonly available in chain convenience stores (73.1%) and dollar stores (33.3%). However, tobacco-free nicotine pouches were not found in any gas station kiosks or stores labeled as "other."

Table 10. Tobacco-free nicotine pouch availability in stores by store type, 2022

	Nicotine pouch availability
Store type	%
Non-chain convenience (n=75)	8.0
Chain convenience (n=26)	73.1
Liquor (n=24)	4.2
Drug (n=10)	20.0
Gas kiosk (n=9)	0.0
Dollar (n=6)	33.3
Other (n=6)	0.0
Overall (n=156)	**19.2**

The data in Table 11 shows that the prevalence of exterior ads for tobacco-free nicotine pouches was less than half of the prevalence of interior ads (5.8% vs 12.8%). Exterior ads for this product were only found chain (26.9%) and non-chain convenience stores (2.7%). Interior

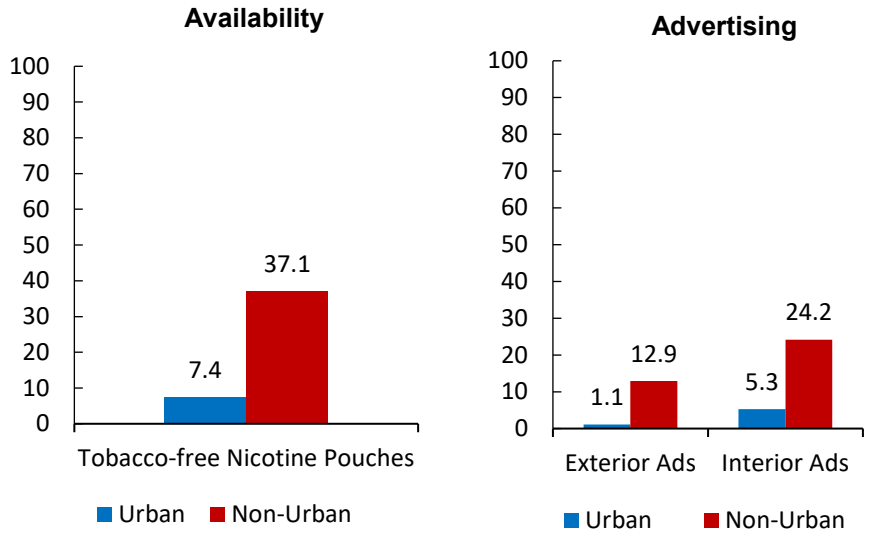
ads were most common in chain convenience stores (57.7%) and drug stores (20.0%), and they were not present in liquor or “other” stores.

Table 11. Tobacco-free nicotine pouch advertising by store type, 2022

Store type	Exterior ads %	Interior ads %
Non-chain convenience (n=75)	2.7	2.7
Chain convenience (n=26)	26.9	57.7
Liquor (n=24)	0.0	0.0
Drug (n=10)	0.0	20.0
Gas kiosk (n=9)	0.0	0.0
Dollar (n=6)	0.0	16.7
Other (n=6)	0.0	0.0
Overall (n=156)	**5.8**	**12.8**

The differences in availability and advertising of tobacco-free nicotine pouches by district type is presented in figure 12. Tobacco-free nicotine pouches were over five times more available in stores located in non-urban areas compared to those in urban areas (37.1% vs 7.4%). The large difference between district type was also present in advertising prevalence. Non-urban stores were much more likely than urban stores to have any exterior (12.9% vs 1.1%) or interior (24.2% vs 5.3%) tobacco-free nicotine pouch advertisements.

Figure 12. Availability and advertising of nicotine pouches in stores by district type %, 2022



E-cigarettes

E-cigarettes were the third most commonly available tobacco product at stores in the sample. They were present in all store types, and nearly half of all stores audited sold e-cigarettes (46.2%) (Table 12). E-cigarettes were most available in chain convenience stores (80.8%). Flavored varieties were sold in 35.3% of all stores in the sample, and they were also most available in chain convenience stores (50.0%). However, they were not sold in drug stores or dollar stores.

Table 12. Availability of e-cigarettes and flavored e-cigarettes by store type, 2022

	E-cig availability	Flavored e-cig availability
Store type	%	%
Non-chain convenience (n=75)	48.0	38.7
Chain convenience (n=26)	80.8	50.0
Liquor (n=24)	37.5	37.5
Drug (n=10)	10.0	0.0
Gas kiosk (n=9)	22.2	22.2
Dollar (n=6)	16.7	0.0
Other (n=6)	33.3	33.3
Overall (n=156)	**46.2**	**35.3**

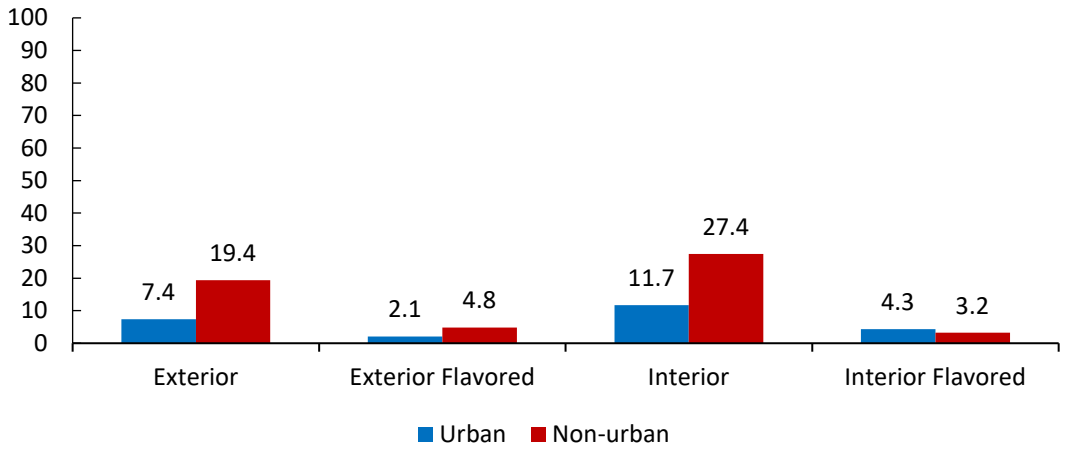
12.2% of all stores audited had any exterior e-cigarette advertisement, and no exterior ads were seen in liquor stores, drug stores, dollar stores, or “other” stores. Only 3.2% of the stores in the sample had any exterior ads for flavored e-cigarettes, and gas station kiosks had the highest advertising prevalence (11.1%). Interior e-cigarette ads were seen in 17.9% of the stores in the sample, and they were only present in chain convenience stores (53.8%), non-chain convenience stores (16.0%) and liquor stores (8.3%). Interior flavored ads were only seen in 3.8% of stores, and those stores only included chain (11.5%) and non-chain convenience stores (4%).

Table 13. Presence of e-cigarette advertising by store type, 2022

Store type	Exterior ads %	Exterior flavored ads %	Interior ads %	Interior flavored ads %
Non-chain convenience (n=75)	14.7	4.0	16.0	4.0
Chain convenience (n=26)	26.9	3.8	53.8	11.5
Liquor (n=24)	0.0	0.0	8.3	0.0
Drug (n=10)	0.0	0.0	0.0	0.0
Gas kiosk (n=9)	11.1	11.1	0.0	0.0
Dollar (n=6)	0.0	0.0	0.0	0.0
Other (n=6)	0.0	0.0	0.0	0.0
Overall (n=156)	**12.2**	**3.2**	**17.9**	**3.8**

As shown in Figure 13, Exterior and interior e-cigarette ads were much more prevalent in stores located in non-urban areas than in stores located in urban areas. Exterior ads were almost three times more common in non-urban stores (19.4%) than in urban stores (7.4%), and interior ads were over two times more common in non-urban stores (27.4%) than in urban stores (11.7%). The difference in advertising for flavored e-cigarettes by district type was much smaller than the overall advertising difference. Non-urban stores had a slightly higher advertising presence for exterior flavored ads (4.8% vs 2.1%). However, non-urban stores ad a slightly lower advertising presence for interior flavored ads (3.2% vs 4.3%).

Figure 13. Presence of e-cigarette ads in stores by district type %, 2022



Disposable e-cigarettes were sold in almost half of all stores in the sample, and they were available across all store types (Table 14). Flavored disposable e-cigarettes were available in over a third of stores in the sample. Chain convenience stores were the most likely to sell these products, as 76.9% of them sold disposable e-cigarettes and 50% sold flavored disposables. Flavored disposable e-cigarettes were nearly equally available in both urban and non-urban stores. 34% of all urban stores and 33.9% of all non-urban stores sold flavored disposable e-cigarettes (Table 15). However, there were differences in availability based on the store types in those areas. Non-chain convenience stores and liquor stores were more likely to sell flavored disposable e-cigarettes in non-urban areas than in urban areas. The reverse is true for chain convenience stores and "other" stores.

Table 14. Availability of disposable e-cigarettes by store type, 2022

Store type	Disposable e-cigarette availability %	Flavored Disposable e-cigarette availability %
Non-chain convenience (n=75)	41.3	36.0
Chain convenience (n=26)	76.9	50.0
Liquor (n=24)	37.5	37.5
Drug (n=10)	10.0	0.0
Gas kiosk (n=9)	22.2	22.2
Dollar (n=6)	16.7	0.0
Other (n=6)	33.3	33.3
Overall (n=156)	**42.3**	**34.0**

Table 15. Availability of flavored disposable e-cigarettes by store and district type, 2022

Store type	Urban districts %	Non-urban districts %
Convenience, non-chain	34.9	41.7
Convenience, chain	57.1	47.4
Liquor store	33.3	41.7
Drug store	0.0	0.0
Gas station, kiosk only	0.0	22.2
Dollar store	0.0	0.0
Other	50.0	0.0
Overall	**34.0**	**33.9**

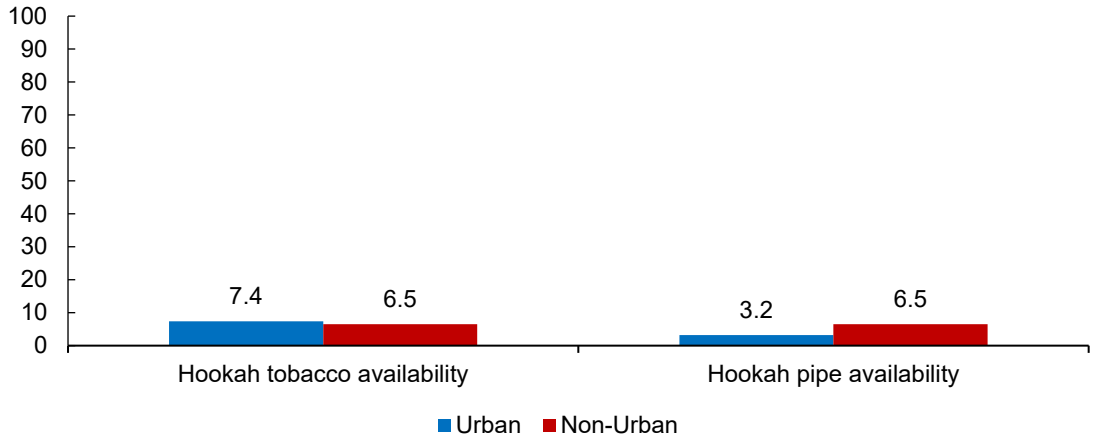
Hookah

Hookah tobacco was available in 7.1% of all stores in the sample. And hookah pipes were available in 4.5% of the sample's stores (Table 16). Hookah tobacco was only sold in non-chain convenience stores (8.0%), convenience stores (7.7%), liquor stores (8.3%), and stores labeled as "other" (16.7%). Hookah pipes were only sold in non-chain convenience stores (4.0%), convenience stores (11.5%), and stores labeled as "other" (16.7%). As shown in Figure 14, hookah tobacco availability in urban stores was slightly higher than that of non-urban stores (7.4% vs 6.5%). Hookah pipe availability is slightly lower in urban stores compared to non-urban stores (3.2% vs 6.5%).

Table 16. Hookah tobacco and hookah pipe availability by store type, 2022

Store type	Hookah tobacco availability %	Hookah pipe availability %
Non-chain convenience (n=75)	8.0	4.0
Chain convenience (n=26)	7.7	11.5
Liquor (n=24)	8.3	0.0
Drug (n=10)	0.0	0.0
Gas kiosk (n=9)	0.0	0.0
Dollar (n=6)	0.0	0.0
Other (n=6)	16.7	16.7
Overall (n=156)	7.1	4.5

Figure 14. Hookah tobacco and hookah pipe availability in stores by district type %, 2022



Compliance with New Jersey Tobacco Age of Sale Signs

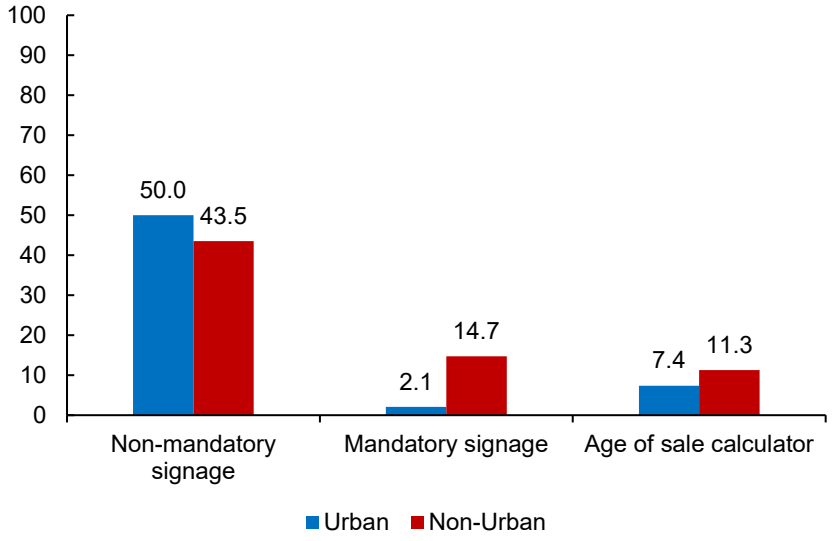
As shown in Table 17, only 7.1% of stores in the sample displayed the mandatory tobacco age of sale signs. Drug stores were the most compliant store type by far (50%) and were the only store type with a double-digit percentage for mandatory signage compliance. This signage was absent in the audited gas station kiosks, dollar stores, and stores labeled as "other." Non-mandatory age of sale signs were observed in nearly half of all stores in the sample. This signage was present in all store types, and it was most common in liquor (66.7%), dollar (66.7%), and non-chain convenience stores (53.3%). The FDA age of sale calculator was present in 9% of the stores in the sample. These were only present in drug (20%), dollar (16.7%), non-chain convenience (12%), and liquor stores (8.3%).

Table 17. New Jersey tobacco age of sale signage by store type, 2022

Store type	Non-mandatory signage %	Mandatory signage %	Age of sale calculator %
Non-chain convenience (n=75)	53.3	4.0	12.0
Chain convenience (n=26)	23.1	3.8	0.0
Liquor (n=24)	66.7	8.3	8.3
Drug (n=10)	40.0	50.0	20.0
Gas kiosk (n=9)	22.2	0.0	0.0
Dollar (n=6)	66.7	0.0	0.0
Other (n=6)	33.3	0.0	16.7
Overall (n=156)	**47.4**	**7.1**	**9.0**

Figure 15 presents tobacco age of sale signage by district type. Stores in urban areas had a higher non-mandatory signage presence (50%) compared to stores in non-urban areas (43.5%). Conversely, urban stores were much less likely to display mandatory age of sale signage than non-urban stores (2.1% vs 14.7%). Urban stores were also less likely than non-urban stores to have an FDA age of sale calculator (7.4% vs 11.3%).

Figure 15. New Jersey tobacco age of sale signage in stores by district type %, 2022



Compliance with NRT Requirements

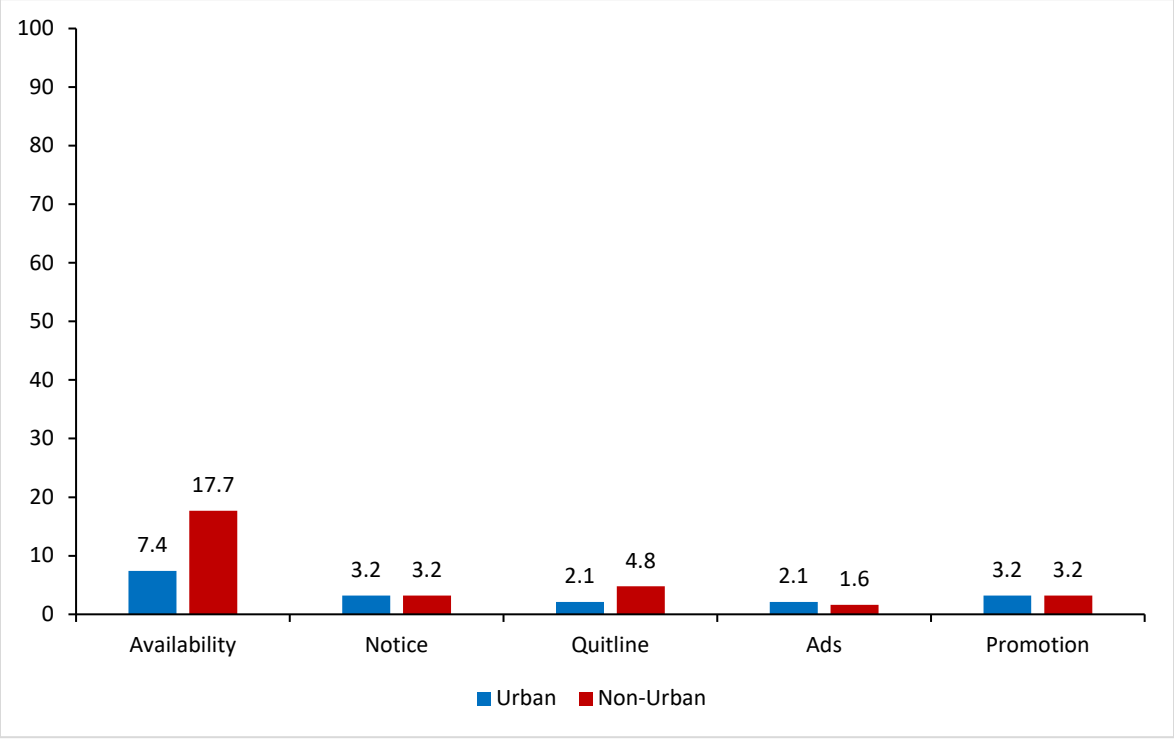
Starting in March of 2022, New Jersey law required tobacco retailers to stock nicotine replacement therapy products (NRT), display a printed notice stating that those products are available, and display the official logo, phone number, and Internet address of the NJ Smoking Quitline. As shown in Table 18, 11.5% of the stores in the sample sold NRT products. Stores selling NRT included chain convenience stores (23.1%), drug stores (100%), and dollar stores (33.3%). Only 3.2% of stores provided printed notice of NRT product availability. Similar to availability, stores with NRT signage included chain convenience stores (7.7%), drug stores (10%), and dollar stores (33.3%). Signs displaying the official logo, phone number, and internet address of NJ Quitline were only found in 3.2% of stores in the sample, and were only present in chain convenience stores (11.5%) and dollar stores (33.3%).

Table 18. NRT law compliance and NRT ads and promotion by store type, 2022

Store type	NRT Availability %	NRT Notice %	Quitline Sign %	NRT ads %	NRT Promotion %
Non-chain convenience (n=75)	0.0	0.0	0.0	0.0	0.0
Chain convenience (n=26)	23.1	7.7	11.5	3.8	0.0
Liquor (n=24)	0.0	0.0	0.0	4.2	0.0
Drug (n=10)	100.0	10.0	0.0	10.0	50.0
Gas kiosk (n=9)	0.0	0.0	0.0	0.0	0.0
Dollar (n=6)	33.3	33.3	33.3	0.0	0.0
Other (n=6)	0.0	0.0	0.0	0.0	0.0
Overall (n=156)	**11.5**	**3.2**	**3.2**	**1.9**	**3.2**

Figure 16 displays the compliance with NRT requirements by district type. There was no difference in presence of the required notice by district type. However, non-urban stores were much more likely to sell NRT products than urban stores (17.7% vs 7.4%). Non-urban stores were also slightly more likely to display the required Quitline signage compared to urban stores (4.8% vs 2.1%).

Figure 16. NRT law compliance and NRT ads and promotion in stores by district type %, 2022



Changes in tobacco advertisements, 2019-2022

Audits were successfully repeated in 129 stores between 2019 and 2022. Table 19 highlights changes in the prevalence of product advertising over these years. Advertising was not tracked in 2020, so these were not presented. Advertising for cigarettes decreased from 2019 to 2022, with exterior ads seeing the largest drop (-17.8 percentage points). Advertising for menthol cigarettes followed the same trend, with the largest decrease in interior advertising (-14.8 percentage points). Overall, cigar advertisement remained constant, with the exception of a 6.2 percentage point decrease in interior flavored cigar advertisements. The prevalence of smokeless tobacco advertising remained relatively low, albeit constant, during this time period. Exterior smokeless tobacco advertising increased by less than one percentage point and interior ads decreased by the same amount. Tobacco-free nicotine pouches saw notable increases in advertising, as exterior ads increased by 4.6 percentage points and interior ads increased by 13.2 percentage points from 2019 to 2022. Prevalence of tobacco-free nicotine pouch ads increased the most between 2019 and 2021 and remained relatively consistent between 2021 and 2022. E-cigarettes saw a substantial decrease in advertisements from 2019 to 2022. The largest decrease was seen between 2019 and 2021. The prevalence of e-cigarette advertising remained consistent between 2021 and 2022. Slight drops in the prevalence of exterior ads were countered by slight increases in interior e-cigarette advertising between 2021 and 2022, most notably among advertising for flavored e-cigarettes (+2.3 percentage points).

Table 19. Changes in tobacco product advertising between 2019 and 2022 (n=129)

	2019 %	2021 %	2022 %	Percentage Point Change 2019 vs. 2022
Cigarettes				
Exterior cigarette ads	52.7	41.9	34.9	-17.8
Exterior menthol cigarette ads	43.4	36.4	26.4	-17.0
Interior cigarette ads	70.5	65.1	56.6	-13.9
Interior menthol cigarette ads	57.4	51.9	42.6	-14.8
Cigars				
Exterior cigar ads	22.5	22.5	20.9	-1.6
Exterior flavored cigar ads	14.7	15.5	13.2	-1.5
Interior cigar ads	34.1	29.5	30.2	-3.9
Interior flavored cigar ads	27.9	17.8	21.7	-6.2
Smokeless tobacco				
Exterior smokeless ads	2.3	2.3	3.1	+0.8
Interior smokeless ads	15.5	14.0	14.7	-0.8
Tobacco free nicotine pouches				
Exterior nicotine pouch ads	1.6	7.0	6.2	+4.6
Interior nicotine pouch ads	0.8	13.2	14.0	+13.2
E-cigarettes				
Exterior e-cig ads	21.7	13.2	11.6	-10.1
Exterior flavored e-cig ads	9.3	4.7	2.3	-7.0
Interior e-cig ads	20.2	17.1	17.8	-2.4
Interior flavored e-cig ads	5.4	1.6	3.9	-1.5

Changes in product availability, 2019-2022

Table 20 displays changes in product availability between 2019 and 2022. The availability of cigarettes, cigars, and flavored cigars remained relatively high, but there was also a slight decrease in the availability of these products across the four-year period. Mirroring trends in product advertising, the availability of e-cigarette products decreased in 2020 including menthol, mint, and other flavored e-cigarettes. However, in 2022 the availability of any e-cigarette products eclipsed 2020 rates, with the most notable increases observed in the availability of disposable flavored e-cigarettes. The availability of menthol, mint and other flavored e-cigarettes all saw

substantial increases between 2021 and 2022 (+11.6, +13.2 and +13.9 percentage points respectively).

The availability of smokeless tobacco and tobacco-free nicotine pouches increased between 2019 and 2022. Availability of tobacco-free nicotine pouches increased the most (+12.2 percentage points), followed by smokeless tobacco (+3.1 percentage points). Hookah tobacco had a small decrease in availability, seeing less than a percentage point decline. Some stores in this sample stopped selling tobacco all together; the number of stores that no longer sold tobacco rose by 3.1 percentage points from 2019 to 2021.

Table 20. Changes in product availability between 2019-2022 (n=129)

Product type	2019 %	2020 %	2021 %	2022 %	Percentage Point Change 2019 vs. 2022
Cigarettes					
Cigarettes	98.4	99.2	93.0	96.1	-2.3
NAS cigarettes	45.7	53.5	46.5	44.2	-1.5
Cigars/cigarillos					
Cigars/cigarillos	91.5	93.0	86.8	86.0	-5.5
Flavored cigars/cigarillos	90.7	89.9	82.9	86.0	-4.7
Smokeless tobacco					
Moist snuff SLT	20.9	27.9	24.8	24.0	+3.1
Wintergreen SLT	20.9	27.1	23.3	22.5	+1.6
Flavored SLT	18.6	20.2	14.7	20.2	+1.6
Tobacco-free nicotine pouches					
Nicotine pouches	6.2	19.4	18.6	18.4	+12.2
E-cigarettes					
Any e-cigarette	44.2	38.0	36.4	47.3	+3.1
Menthol e-cigarettes	41.1	12.4	18.6	30.2	-10.9
Mint e-cigarettes	42.6	10.1	18.6	31.8	-10.8
Flavored e-cigarettes	38.8	24.0	22.5	36.4	-2.4
Disposable flavored e-cigarettes	N/A	21.7	22.5	35.7	+14.0*
Hookah					
Hookah tobacco	3.9	0.0	5.4	3.1	-0.8
Hookah pipe	3.1	0.0	3.1	1.6	-1.5
No longer sells tobacco					
No tobacco sold	0.8	0.0	3.9	3.9	+3.1

*Disposable flavored e-cigarette availability data was not collected prior to 2020. The comparison is between 2020 and 2022.

CONCLUSION AND RECOMMENDATIONS

Combustible tobacco remains the most available and advertised product in licensed tobacco retailers near high schools. Cigarettes were by far the most available and advertised tobacco product across all stores. Chain convenience stores often have a high number of cigarette ads (5 or more) which may be a function of the retail space available in these types of stores.

Cigars and cigarillos were the second most available and advertised tobacco product. All stores that sold cigars/cigarillos had a flavored variety available. Although both flavored and non-flavored cigars/cigarillos were slightly more available in urban areas, advertising for both products were more often found in non-urban areas. Availability and advertising of cigars/cigarillos is especially concerning because cigars or cigarillos provide a cheaper alternative to cigarettes – it is not uncommon to find a two pack of cigars selling for as little as 99 cents – making them potentially more appealing to price-sensitive buyers such as youth. In addition, it will also be important to continue to monitor cigar/cigarillo advertising and availability in the context of recreational marijuana legalization, approved by New Jersey voters in a 2020 ballot measure, given the frequent co-marketing and co-use of marijuana with cigarillos.[14,15]

Non-combustible tobacco products were more available and often advertised in non-urban areas. Advertising prevalence and availability of smokeless tobacco and tobacco-free nicotine pouches were similar, with smokeless tobacco being slightly more advertised and available. These products were predominantly sold in chain convenience stores, more frequently located in non-urban areas. E-cigarettes were the most available and advertised non-combustible tobacco product and mimicked urban vs non-urban trends of the other non-combustible products. Although availability of menthol, mint, and other flavored e-cigarettes substantially declined since 2019, these products remain available in over a third of stores.

Another notable difference in tobacco product advertising between urban and non-urban district stores was the higher number of both exterior and interior ads in non-urban stores.

Advertising prevalence for all tobacco products was substantially greater in non-urban district stores as well. Stores near urban district schools were more likely to be independently owned ("mom and pop") stores or bodegas, which may not heavily advertise tobacco products given space constraints.

Our observations of New Jersey tobacco age of sale signage found that slightly less than half of stores (47.4%) displayed the non-mandatory, but more recently distributed, age of sale signs provided by the New Jersey Department of Health. However, New Jersey age of sale signs required by law, as well as voluntary FDA age calculators were observed in less than 15% of stores.

Comparing tobacco product advertising prevalence between 2019 and 2022, we found declines in advertising of all tobacco categories except tobacco-free nicotine pouches and exterior smokeless tobacco. Exterior and interior advertisements for tobacco-free nicotine pouches increased significantly between 2019 and 2022, corresponding to wider distribution of emerging brands in these years. We found that changes in tobacco product availability during this time period was related to combustion. While the availability of combustible products (cigarettes, cigars/cigarillos, hookah) declined, non-combustible product availability increased (smokeless tobacco, tobacco-free nicotine pouches, e-cigarettes). Most notably, the 14.1 percentage point increase in flavored disposable e-cigarettes.

This report provides important findings about the accessibility and promotion of various tobacco products near New Jersey high schools. The recent ban on the sale of flavored e-cigarettes in New Jersey, including menthol and mint, initially appeared to have the desired result of reducing availability of such products. However, flavored e-cigarette products were far from eliminated and were still found for sale in more than a third of licensed tobacco retailers in our sample in 2022, which increased from 2020. Many non-chain convenience stores that had not sold any e-cigarettes had flavored disposable varieties available in 2022. The enactment of the law in April 2020, during the peak of the global COVID-19 pandemic, may have hampered efforts

to enforce the new law. However, with the gradual reopening of workplaces and retailers in the latter half of 2020 and 2021, it is unclear if enforcement of the e-cigarette flavor ban was implemented.

In April 2021, U.S. Food and Drug Administration (FDA) announced that it will initiate a notice and comment rulemaking process to ban menthol-flavored cigarettes and all characterizing flavors in cigars and cigarillos within the following year. As such, it will be important to continue to monitor the advertising and availability of menthol cigarettes. In addition, continued monitoring of all product categories will allow us to see how the tobacco industry responds to such a ban and potentially identify shifts in the marketplace in terms of product advertising and availability, particularly in areas where youth spend time (e.g., near schools).

We also assessed compliance with the recent law requiring NRT stock and signage in licensed retailers and found that only 11.5% of the stores in our sample sold NRT products and 3.2% of stores provided printed notice of NRT product availability or NJ Quitline signage. Efforts by community partners have attempted to educate retailers and share materials. We will continue to monitor in the accessibility of NRT in retailers over time.

RECOMMENDATIONS

Given recent government and industry action over the last two years, continued surveillance of point-of-sale tobacco product availability and advertising remains critically important. New Jersey led the nation by enacting several tobacco control policies well ahead of other states and localities including increased age of sale, restricting flavors in all e-cigarettes, limiting coupon redemption for all tobacco products, and requiring NRT at the point of sale but it falls short in ensuring uniform compliance with such policies. Despite the state's ban, the availability of flavored e-cigarettes, while reduced, endures. For such laws to effectively deter tobacco distributors and retailers, they must know the laws exist and believe these laws are enforced. Retailer education as well as strong and consistent enforcement of the law is necessary.

Retailer education may be enhanced with the creation of a list of prohibited flavored tobacco products in New Jersey. Chicago, San Francisco, Los Angeles County and New York City have created such databases.[16] Local jurisdictions face challenges in maintaining these lists given the constantly evolving tobacco marketplace and limited staff resources; lists of prohibited flavored tobacco products may be easier to compile at the state and federal level.

If we hope to make further reductions in youth and adult tobacco use, we must work to change the tobacco retail environment with a focus on the most dangerous products, cigarettes and cigars. There are various place and product-based strategies shown to be effective in reducing youth access including reducing tobacco retailer density (e.g., by volume or proximity to schools), store-type sales restrictions (i.e., selling only in adult-only facilities, banning sales in pharmacies, etc.), restrictions on cigar flavors and packaging, and increased tobacco taxes.[17,18,19,20] The industry continues to innovate and offer a variety of flavors, packaging, and product types, particularly in the area of cigars. Efforts to reduce cigar use should keep pace with other strong efforts to reduce cigarette use including high prices, minimum packaging, and flavor restrictions.

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