

# Retail Store Assessments for Flavored Tobacco Products: Pilots in Tobacco Nation



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## Background

Counter Tools and Truth Initiative partnered in 2018 to develop a set of retail tobacco store assessment questions specifically focused on menthol and other flavored tobacco products as an additional module to the Standardized Tobacco Assessment for Retail Settings (STARS) form. This set of questions was piloted in two cities within Tobacco Nation in order to field-test the questions and to facilitate the cities' consideration of flavor-based policies and other point-of-sale tobacco control policies. Following the initial pilot, the form was revised to reflect the evolving market for flavored e-cigarette products, to be able to better compare flavored and non-flavored products, and to compare local data with national trends in disparities in the availability and marketing of flavored products. The revised form was piloted in three cities, two of which were within Tobacco Nation.

### Project Rationale: Why focus on flavored tobacco products?

Flavored tobacco products are widely available across the United States and present a number of concerns for public health. While the 2009 Family Smoking Prevention and Tobacco Control Act (FSPTCA) prohibited the sale of cigarettes with "characterizing flavors," it excluded menthol flavor along with tobacco flavor, and this restriction does not apply to any other tobacco products including cigars, cigarillos, smokeless tobacco, hookah, or e-cigarette products.

The ban on flavored cigarettes was associated with a 17% reduction in the probability of middle and high school youth becoming smokers and a 58% reduction in cigarettes smoked by current youth smokers, and a 6% reduction in the probability of youth using any tobacco product.<sup>1</sup> However, the ban was also associated with a 45% increase in youth use of menthol cigarettes, a 34% increase in use of cigars, and a 55% increase in use of pipes, indicating that youth may be substituting menthol cigarettes and other flavored tobacco products in place of flavored cigarettes and pointing towards the need for more comprehensive restrictions on the sale of all flavored tobacco products.<sup>2</sup>

Additionally, when flavored cigarettes were banned, flavored cigars and cigarillos with flavors including candy and other sweets, fruit, alcoholic beverages, herbs, and spices became increasingly popular among youth and adults, with sales increasing by 50% between 2008 and 2015.<sup>3</sup> In recent years tobacco companies have been selling and advertising tobacco products, particularly cigars and cigarillos, hookah, and e-cigarettes with more ambiguous names such as colors, jewels, or concepts (e.g. blue, green, Jazz, diamond, tropical twist, island madness). While these flavors are described by users as flavored<sup>4</sup> and have similar chemical compositions as more clearly flavored products (e.g. peach or grape)<sup>5</sup>, this may be the tobacco industry's strategy to make restrictions on the sale of flavored tobacco products more difficult to enforce. This also follows the tobacco industry's pattern of behavior in response to other tobacco control regulations. When the FSPTCA prohibited the use of modified risk health descriptors such as "light," "low tar," or "mild" in cigarettes, Marlboro changed the name of their "Marlboro Light" cigarettes to "Marlboro Gold," "Marlboro Ultra Lights" to "Marlboro Silver," and "Marlboro Mild" to "Marlboro Blue."

Flavored tobacco products, including menthol cigarettes, contribute to youth tobacco use initiation. Over 80% of youth who have ever used tobacco started with a flavored product.<sup>6</sup> Not only do the flavored tobacco products and their colorful packaging attract youth, but youth also perceive these flavored products as less harmful.<sup>7</sup> These flavored cigars, cigarillos, blunts, e-cigarette products, and hookah are widely available at retail stores, including at convenience stores where youth frequently shop,<sup>8</sup> and they can also be placed right on the counter in self-service displays and next to similar-looking candy or other youth-centric items. Unlike cigarettes, cigarillos, little cigars, and blunts have no federal requirement for minimum pack size and are often sold as singles, and advertised for less than \$1, yet they are just as harmful as cigarettes.<sup>9</sup>

These cheap prices increase the products' appeal to youth and young adults, who are more price-sensitive than older adults.<sup>10</sup> Lower prices encourage youth tobacco use initiation as well and, along with coupons and other price discounts, encourage youth to move from experimentation to regular smoking.<sup>11</sup> Tobacco companies spent over 85% of their total marketing expenditures for cigarettes and smokeless tobacco in 2018 on price discounts.<sup>12</sup> These price promotions and cheap prices can make flavored tobacco products even more appealing to youth and other price-sensitive groups. Raising the price of tobacco products is one of the most effective strategies for reducing initiation, decreasing consumption, and increasing cessation.<sup>13</sup>

A wide range of e-cigarette products are available on the market today. While the first generation of e-cigarettes were disposable and largely looked similar to conventional cigarettes, now newer generations of e-cigarette products come in both disposable and rechargeable varieties. Many are designed with refillable tanks or cartridges designed to be used with flavored nicotine solution or "e-liquid." New 4<sup>th</sup> generation "pod mod" styles of e-cigarettes allow the user to replace cartridges or "pods" that can be refillable or pre-filled with flavored nicotine e-liquid. The pod mod device may be sold separately from the pre-filled pods or together in a "starter kit." These pods also typically use nicotine salts rather than the free-base nicotine used in previous generations of e-cigarettes, which allows the user to easily inhale and absorb high levels of nicotine.<sup>14</sup>

Youth use of e-cigarettes has skyrocketed in recent years. E-cigarettes are now the most commonly used tobacco product among youth, with 19.6% of high school students and 4.7% of middle school students reporting current use in 2020.<sup>15</sup> E-cigarette products are often available in flavors that appeal to youth, and some have been sold in packages designed to look like juice boxes, popular children's cereals, and candies.<sup>16</sup> In 2018, the e-cigarette company Juul captured over 75% of the e-cigarette market share in the United States with their high nicotine delivery pod mod devices, and many other tobacco companies introduced similar style e-cigarette products. Youth e-cigarette use grew by 78% across the United States from 2017-2018,<sup>17</sup> driven largely by use of Juul.

Data collection for the second pilot of the fSTARS form occurred from January - August 2020, during a time when the U.S. e-cigarette market was shifting, and so were youth e-cigarette consumption patterns. While the 2020 National Youth Tobacco Survey (NYTS) shows that current e-cigarette use among high school students decreased from 27.5% to 19.6% and current use among middle school students decreased from 10.5% to 4.7%,<sup>18</sup> e-cigarettes remain the most common tobacco product

used by youth. In addition, many youth are vaping frequently, with 22.5% of high school students reporting daily use as well as 9.4% of middle school students.<sup>19</sup>

In response to the youth e-cigarette epidemic, on January 2, 2020, the FDA announced a federal ban on the sale of flavored pre-filled cartridge-based e-cigarette products (like Juul) other than menthol or tobacco flavor. However, this restriction did not apply to e-liquids used in refillable e-cigarette devices or to disposable e-cigarettes. Retailers were given 30-days to sell off their remaining stock of these newly prohibited products, during which time this data collection began.

Use of menthol-flavored e-cigarette products also grew during this time. Prior to the federal restriction, e-cigarette company Juul voluntarily stopped selling flavors other than menthol and tobacco in retail locations, starting with their fruit- and dessert-flavored pods in October 2018,<sup>20</sup> and then mint-flavored pods in November 2019.<sup>21</sup> Between August 2019 and May 2020, menthol sales grew from 11% to 52% of total e-cigarette sales.<sup>22</sup> While in previous years, menthol was not assessed independently, 2020 NYTS data shows that nearly half of youth and young adults who use e-cigarettes have used a menthol flavored pre-filled pod or cartridge and one quarter have used a menthol flavored disposable vaping product. Sales data also show a shift from mint to menthol.<sup>23</sup>

With the federal restrictions on the sale of flavored e-cigarette products in place, youth consumption shifted to new products like Puff Bar, a disposable e-cigarette that mimicked Juul's design but was still available in sweet and fruity flavors. The 2020 NYTS data show that while pod mods remained the most commonly used type of e-cigarette for 48.5% of high school students, rates of disposable e-cigarette use grew by roughly 1000% among high school students, jumping from 2.4% in 2019 to 26.5% in 2020.<sup>24</sup> In addition, 72.6% of disposable sales were for flavors banned from pod mods, indicating that youth were shifting to these products for the flavors.<sup>25</sup> In July 2020, Puff Bar received a warning letter from the FDA instructing the company to remove its products from the marketplace since the product had not received the required premarket authorization,<sup>26</sup> and while the company first declared that they would cease all operations in the United States, they later declared they would only cease online sales in the United States. Puff Bar remains on the market and continues to grow its market share.<sup>27</sup> Other copycat products have also emerged.<sup>28</sup>

The exclusion of menthol cigarettes in the 2009 FSPTCA left on the marketplace a deadly product that is easier to start, harder to quit, and has been disproportionately targeted to the African-American community for decades.<sup>29 30</sup> Marketing for menthol tobacco products is more prevalent in urban neighborhoods and neighborhoods with black residents.<sup>31</sup> A 2015 study in both rural and urban Ohio also found a higher prevalence of ads for cigarillos, cigars, and e-cigarettes in African American communities and found that urban, disadvantaged, African-American communities had advertisements for more types of tobacco products overall.<sup>32</sup> Studies have shown that menthol cigarettes specifically are priced lower and more frequently discounted in African-American neighborhoods.<sup>33</sup> As a result of this targeted marketing, menthol cigarettes are most popular among African-American smokers, 85% of whom prefer menthol cigarettes.<sup>34</sup> However, menthol marketing also targets other communities of color, youth, and women.<sup>35</sup> Since 2011, sales of menthol cigarettes have increased, and increasing numbers of Asian & Hispanic smokers are preferring menthol over non-menthol.<sup>36 37</sup> Similarly, little cigars and cigarillos, which are often flavored, are often priced lower in communities with more

African-American residents and more young adults.<sup>38</sup> The disparate presence and promotion of these products in already disadvantaged neighborhoods contributes to and exacerbates disparities in tobacco use behaviors and tobacco-related death and disease.

## Development of a flavor and menthol tobacco retail store assessment module

The Standardized Tobacco Assessment for Retail Settings (STARS) form was designed for practitioners to inform state and local tobacco control policies pertaining to the point of sale. The STARS form and training materials resulted from a collaboration of SCTC researchers with stakeholders from five state health departments, the CDC, and the Tobacco Control Legal Consortium. The assessment items, which include tobacco product availability, price, promotion, and placement were selected exclusively for their policy relevance. Similarly, Counter Tools and Truth Initiative sought to design and test a set of questions specifically focused on menthol and other flavored tobacco products that had direct policy relevance.

Counter Tools provides a slightly modified version of the STARS form to partners who use their software tools to collect and manage store assessment data. Counter Tools' partners at the Minnesota Department of Health chose to add some additional questions around menthol and other flavored tobacco products to assess the availability of these products and provide evidence in support of flavored tobacco policy initiatives. Counter Tools and Truth Initiative expanded upon these questions in 2018 with some additional assessment items related to emerging flavored tobacco products, such as those with ambiguous flavor names, "pod mod" style e-cigarettes like JUUL, and e-liquid sold in droppers. We also added questions relating to emerging trends and promotional strategies, such as the provision mobile coupons for tobacco products in order to capture new promotional strategies for flavored tobacco products. For the revised assessment form used in 2020, we added questions about the availability and price of disposable e-cigarettes; pod mod devices, cartridges, and starter kits; as well as e-liquid. We also added questions to be able to compare flavored and non-flavored products as well as to be able to compare local data with national trends in disparities in the availability and marketing of flavored products.

As in the form that the team in Minnesota used, we chose to ask specifically about mint, menthol, and wintergreen to encompass a wider range of menthol-flavored tobacco products. We also chose to ask separately about mint-, menthol-, or wintergreen-flavored products and other-flavored products in order to assess any differential availability, advertising, or pricing of the products overall and between different neighborhoods.

## Measures

Descriptive statistics for each of the assessment items were calculated, including frequency and percent for each response with categorical response options. The average was calculated for each question regarding price. For open-ended assessment items asking about brand names or ambiguous flavor names, the mode was calculated.

Composite variables were created to assess the prevalence of retailers selling of any flavored tobacco product, any flavored smokeless tobacco, any flavored e-cigarette products, and any flavored hookah tobacco; the prevalence of retailers with exterior ads for any flavored tobacco products; as well as for retailers that offered price promotions on any flavored tobacco product, any flavored e-cigarette product, and any flavored hookah product (mint-, menthol-, wintergreen-, or other-flavored); and for the cheapest advertised price of a pack of non-menthol or menthol cigarettes.

We also assessed whether exterior ads for any flavored tobacco product were more prevalent at stores located within 1000ft of school compared with stores located greater than 1000ft from schools. To calculate this, we used latitude and longitude information from the Homeland Infrastructure Foundation-Level Data Open Data Set. We geocoded tobacco retailers in each city based on the addresses given to us by our partners in those respective cities. The shapefiles in use were reprojected to the Transverse Mercator Projected Coordinate System of either: WGS\_1984\_UTM\_Zone\_16S or NAD\_1983\_UTM\_Zone\_17N. In ArcMap, we used the tool "select by location" to select all of the assessed retailers in Dayton and Cleveland that were "within a distance of 1000 ft" of a school. This was performed separately for each city. Those retailers that were selected, were given a 1 to specify "yes" for being within 1000ft of a school, all others were given a 0 for not being within 1000ft of a school. The measure tool was used to confirm retailers from each city.

#### **Variation by Demographics:**

- **% below poverty:** calculated at the census tract level using data from the American Community Survey, we compared the average cheapest advertised price of a pack of cigarettes available (menthol, non-menthol, and overall), the price of a pack of Newport menthol cigarettes, as well as the presence of exterior advertisements for menthol cigarettes and flavored little cigars, cigarillos, or blunts in the quintile with the highest percentage of persons below the federal poverty level to the quintile with the lowest percentage.
- **% African American:** calculated at the census tract level using data from the American Community Survey, we compared the average cheapest advertised price of a pack of cigarettes available (menthol, non-menthol, and overall), the price of a pack of Newport menthol cigarettes, the availability of menthol cigarettes, as well as the presence of exterior advertisements for menthol cigarettes and flavored little cigars, cigarillos, or blunts in the quintile with the highest percentage African-American residents to the quintile with the lowest percentage.
- **% ages 5-17:** calculated at the census tract level using data from the American Community Survey, we compared the we compared the average cheapest advertised price of a pack of cigarettes available in the quintile with the highest percentage of residents ages 5-17 to the quintile with the lowest percentage.

For each of these analyses, we included any census tract which contained a surveyed retailer and any for which 50% or more of the land area fell within the relevant city or county boundary. We did not test for statistical significance in any of the comparisons.

## Why Tobacco Nation?

Tobacco Nation is a geographic area identified by Truth Initiative as a cluster of states where the smoking prevalence exceeds the national average as well as the prevalence in many of the most tobacco-dependent countries in the world.<sup>39</sup> One factor that contributes to the disparate smoking rates in this region is the lack of tobacco control policies in comparison to the rest of the United States. We chose to test this form within Tobacco Nation so that localities there would have additional data and resources to work towards policy change. We also sought to test the form outside of Tobacco Nation to be able to compare differences in the availability, advertising, and pricing of flavored tobacco products between localities within and outside of Tobacco Nation.

## Methods

### 2018- 2019

In 2018, we recruited two cities in Ohio to participate in the project: Dayton and Cleveland. While Ohio has a comprehensive smokefree air law, it has not included e-cigarettes in this policy to date. The state's cigarette tax is \$1.60, the 23<sup>rd</sup> lowest in the nation.<sup>40</sup> Ohio's adult smoking rate is 20.1%,<sup>41</sup> higher than the national average of 14%.<sup>42</sup> Both Dayton and Cleveland have smoking rates above both the national and state average at 22.7%<sup>43</sup> and 35.2%,<sup>44</sup> respectively.

Dayton, OH has a population of 140,371. The city is located in Montgomery County, where 10% of youth ages 12-17 reported current use of any tobacco product, and 8% reported current use of cigarettes from 2010-2012.<sup>45</sup> Dayton is 52.6% Non-Hispanic White, 39.3% Black or African American, 3.9% Hispanic or Latino, 3.4% two or more races, 0.9% Asian, and 0.3% American Indian and Alaskan Native.<sup>46</sup> In Montgomery County, 22.7% of adults reported current smoking from 2011-2013; however, more Non-Hispanic Black residents reported current smoking (25.1%) than White residents (21.4%).<sup>47</sup> In Dayton, 21.9% of residents are under the age of 18.<sup>48</sup>

Using a list of 213 tobacco retailers provided by Public Health – Dayton & Montgomery County, Counter Tools selected a random sample of 167 retailers to be representative of all tobacco retailers in Dayton within a 95% confidence interval, including 20% oversampling to account for any retailers that were closed upon visit or that were otherwise unable to be assessed. Between December 2018 – January 2019, data collectors visited 95 retailers and were able to complete store assessments at 87 retailers, 86 of which sold tobacco. This number of retailers visited represents all tobacco retailers in the City of Dayton within a 90% confidence interval.

Cleveland, OH has a population of 388,072 and is located in Cuyahoga County. Cleveland enacted a policy raising the minimum legal sales age for tobacco products to 21 in April 2016. At the time the law was passed, advocates also sought to restrict the sale of flavored tobacco products within the city, except menthol cigarettes, to smoke shops that primarily sell tobacco, but it was not brought for a vote. Of concern among tobacco control leaders in the city, 13.1% of high school students in Cuyahoga County reported current cigar use (including cigarillos and little cigars) in 2017, compared to 6.2% that reported current cigarette use.<sup>49</sup> Cleveland also has a high adult smoking rate, with 35.2% of adults in

Cleveland reporting current smoking in 2015, with 37.3% of Non-Hispanic White residents reporting current smoking and 36.1% of Non-Hispanic Black residents.<sup>50</sup> Cleveland is 50.4% Black or African American, 33.8% Non-Hispanic White, 11.2% Hispanic or Latino, 4% two or more races, 2.1% Asian, and 0.5% American Indian and Alaska Native.<sup>51</sup> In Cleveland, 22.7% of residents are under the age of 18.<sup>52</sup>

Using a list of 692 tobacco retailers in Cleveland, OH provided by Case Western Reserve University, Counter Tools selected a random sample of 102 retailers to be representative of all tobacco retailers in Cleveland within a 90% confidence interval, including 20% oversampling to account for any retailers that were closed upon visit or that were otherwise unable to be assessed. Between November 2018 – January 2019, data collectors visited all 102 retailers and were able to complete store assessments at 84 retailers, 74 of which sold tobacco.

## 2020

In 2020, we recruited two cities in Missouri (Columbia and Lee's Summit) and one city in Illinois (Evanston) to participate in the project.

Columbia, Missouri has a population of 123,195 and is located in Boone County. Missouri, part of Tobacco Nation, has the nation's lowest cigarette excise tax at \$0.17 and does not yet have a comprehensive smokefree air law statewide.<sup>53</sup> Missouri's adult smoking rate in 2018 was 19.6%, also higher than the national average.<sup>54</sup> Columbia has an adult smoking rate of 18.2%.<sup>55</sup> While the minimum age of sale for tobacco products is now 21 nationwide, Columbia was the first city in Missouri to pass a "Tobacco 21" law in 2014. Columbia's residents are 74.7% non-Hispanic white, 10.9% Black or African American, 6.2% Asian, 3.4% Hispanic or Latino, 0.3% American Indian or Alaska Native, 0.2% Native Hawaiian or Other Pacific Islander, and 4.6% two or more races.<sup>56</sup> In Columbia, 18.0% of residents are under the age of 18.<sup>57</sup>

Lee's Summit, Missouri has a population of 99,357 and is located in Jackson County, Missouri.<sup>58</sup> Jackson County had an adult smoking rate of 20% in 2017. Adult smoking data was not available for Lee's Summit.<sup>59</sup> In Lee's Summit, while only 1.9% of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade students reported using cigarettes in the past 30 days in 2019, a decrease from 3.7% in 2017; however, 10.9% reported vaping in the past 30 days, an increase from 9.3% in 2017.<sup>60</sup> Lee's Summit is 82.2% non-Hispanic white, 7.8% Black or African American, 4.5% Hispanic or Latino, 2.0% Asian, 0.4% American Indian or Alaska Native, 0.2% Native Hawaiian or Other Pacific Islander, and 2.8% two or more races.<sup>61</sup> In Lee's Summit, 27.1% of residents are under the age of 18.<sup>62</sup>

Evanston, Illinois has a population of 73,473 and is located in Cook County, Illinois, just north of Chicago.<sup>63</sup> Illinois, not part of Tobacco Nation, has a smoking rate of 14.5%, only slightly higher than the national average.<sup>64</sup> The state's cigarette excise tax is \$2.98, the 10<sup>th</sup> highest in the nation.<sup>65</sup> Like Ohio, it has a comprehensive smokefree air act, but has not yet incorporated e-cigarettes into the act statewide.<sup>66</sup> Evanston is 59.4% non-Hispanic white, 16.6% Black or African American, 9.3% Asian, 11.8% Hispanic or Latino, 0.1% American Indian and Alaska Native, and 3.8% two or more races.<sup>67</sup> Evanston has also had a minimum legal age of sale of 21 for tobacco products since 2014 and has regulated e-cigarettes the same as tobacco products since 2013.<sup>68</sup> In Evanston, 17.5% of high school students reported past-30 day use of e-cigarettes in 2019, up from 12% in 2017, although there were

technical difficulties in data collection that might affect the validity of the 2019 data.<sup>69</sup> Adult smoking data for Evanston was not available. In Evanston, 20.0% of residents are under the age of 18.<sup>70</sup>

Each of the cities involved in 2020 attempted to survey a census of all tobacco retailers in their community. Specifically:

- Columbia: Using a list of all licensed tobacco retailers in the city of Columbia, MO provided by Columbia/Boone County Public Health and Human Services, data collectors visited 81 retailers within city limits and were able to complete store assessments at 79 retailers, 75 of which sold tobacco.
- Lee's Summit: Using a list of all tobacco retailers in the city of Lee's Summit, MO provided by Lee's Summit CARES, data collectors visited 36 retailers and were able to complete store assessments at 30 retailers, all of which sold tobacco.
- Evanston: Using a list of tobacco retailers in the city of Evanston, IL from previous compliance checks and provided by PEER Services, data collectors visited 34 retailers within the city limits and were able to complete store assessments at 26 retailers, all of which sold tobacco.

Data analysis was completed by Counter Tools. Available store data rather than only complete store data was utilized in analysis; therefore, the total number of assessments summarized for each assessment item may vary depending on the amount of data that was available (or missing) for the particular assessment item.

Prior to conducting data analysis on tobacco store assessments, Counter Tools removed ineligible assessments that indicated the store could not be surveyed, indicated no tobacco products were sold and where retailer addresses could not be geocoded using ArcMap and/or Google. Because some data collectors used paper version of the store assessment form, which did not automatically enforce skip logic, we manually enforced the skip logic through data cleaning. There were two types of skip logic enforcement. For questions in some parent-child question relationships, if answers to all of a parent's child questions were "no" or missing, then the parent must be "no" or missing, and if any of the child question answers were "yes," then the answer to the parent question must also be "yes." (E.g. if the answer to any of the questions regarding whether a specific tobacco product is sold here is "yes," then the answer to "Is any tobacco sold here?" must be yes.) For other parent-child question relationships, if any of the child questions answers were "yes," then the parent must also be "yes;" however, a child question could have a "no" or missing response while the parent response is "yes." (E.g. There could be smokeless tobacco ads on the store exterior, but no flavored smokeless tobacco ads). The data was cleaned to ensure accordance with this skip logic.

All participating cities received training and technical assistance from Counter Tools and Truth Initiative. While some of the cities had prior experience conducting store assessments, Counter Tools conducted web-based trainings for the coordinators of the project in each city as well as some volunteers involved in data collection. The training covered why the retail environment matters for public health and tobacco control, the store assessment process, store assessment etiquette, and how to correctly answer each of the questions included on the form. The training also included a tutorial on how to use Counter Tools' Store Audit Center. This mobile data collection platform allows users to assign data collectors to stores to assess, allowed those data collectors to complete the assessments

on a mobile device, and allowed users to monitor and manage the data. Counter Tools also provided each city with a toolkit to use in training additional volunteers, including a training presentation, as well as a sample script and letter for data collectors' use when introducing themselves to retail clerks.

After data collection was complete, all cities received reports that packaged their data to help drive policy change and/or evaluate changes in the retail environment due to federal-level changes.

## Results

In each of the tables below, the percentages reported for each assessment item only include stores for which data was available (excludes missing data).

### Place

<b>Tobacco Retailer Types Surveyed</b>					
	<b>Dayton (n=83)</b>	<b>Cleveland (n=74)</b>	<b>Columbia (n=75)</b>	<b>Lee's Summit (n=30)</b>	<b>Evanston (n=26)</b>
<b>Convenience store</b>	30.1%	62.2%	54.7%	63.0%	69.2%
<b>Mass merchandiser</b>	25.3%	2.7%	4.0%	3.3%	0%
<b>Grocery store</b>	10.8%	5.4%	6.7%	13.3%	11.5%
<b>Tobacco shop</b>	6.0%	1.4%	8.0%	6.7%	0%
<b>Beer, wine, or liquor store</b>	3.6%	5.4%	12.0%	0%	7.7%
<b>Drug store or pharmacy</b>	2.4%	2.7%	2.7%	6.7%	11.5%
<b>Vape Shop</b>	0%	2.7%	12.0%	3.3%	0%
<b>Other store type not listed</b>	21.7%	6.76%	0%	3.3%	0%

Convenience stores, which are frequented by youth,<sup>71</sup> were the most common type of tobacco retailer in all cities. Flavored tobacco products were available for sale at all retailers surveyed in Dayton, Columbia, Lee's Summit, and Evanston, including convenience stores. In Cleveland, flavored tobacco products were available at all surveyed convenience stores and 72 of 74 (97.3%) retailers surveyed.

<b>Tobacco Retailer Characteristics</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee's Summit</b>	<b>Evanston</b>
<b>Accepts SNAP</b>	22 of 59 (37.3%)	30 of 56 (53.6%)	9 of 74 (12.2%)	19 of 30 (63.3%)	16 of 25 (64.0%)
<b>Accepts WIC</b>	12 of 61 (19.7%)	23 of 62 (37.1%)	9 of 74 (12.2%)	17 of 30 (56.7%)	12 of 26 (46.2%)
<b>Sells Alcohol</b>	64 of 83 (77.1%)	60 of 74 (81.1%)	61 of 74 (82.4%)	26 of 30 (86.7%)	8 of 26 (30.8%)
<b>Pharmacy Counter Present</b>	12 of 84 (14.3%)	13 of 72 (18.1%)	10 of 75 (13.3%)	7 of 30 (23.3%)	5 of 26 (19.2%)

## Products

In 2018-2019, menthol cigarettes were available in nearly all stores in both cities. While more stores in Dayton sold cigarillos, little cigars, or blunts, stores in both cities sold flavored versions at similar rates. Smokeless tobacco and e-cigarettes, including flavored products, were more widely available in Dayton. Hookah was available at around 10% of stores surveyed in each city, though of stores that sold hookah, most sold flavored versions.

<b>Product Availability: 2018-2019</b>						
<b>Product Sold</b>	<b>Dayton</b>			<b>Cleveland</b>		
	<b>Any</b> n of N (%)	<b>Menthol</b> <b>Flavor</b> n of N (%)	<b>Other Flavor</b> n of N (%)	<b>Any</b> n of N (%)	<b>Menthol</b> <b>Flavor</b> n of N (%)	<b>Other Flavor</b> n of N (%)
<b>Cigarettes</b>	82 of 85 (96.5%)	79 of 81 (97.5%)	N/A	71 of 74 (96%)	69 of 71 (97.2%)	N/A
<b>Cigarillos, little cigars, or blunts</b>	79 of 84 (94.1%)	63 of 72 (87.5%)	67 of 74 (90.5%)	63 of 74 (85.1%)	43 of 52 (82.7%)	56 of 62 (90.3%)
<b>Traditional cigars</b>	21 of 81 (25.9%)	5 of 15 (33.3%)	14 of 18 (77.8%)	23 of 73 (31.5%)	14 of 22 (63.6%)	14 of 23 (60.9%)
<b>Chew, snuff, dip, or snus</b>	55 of 80 (68.8%)	52 of 53 (98.1%)	46 of 52 (88.5%)	19 of 74 (25.7%)	16 of 19 (84.2%)	12 of 19 (63.2%)
<b>E-cigarette products</b>	36 of 79 (45.6%)	32 of 34 (94.1%)	26 of 34 (76.5%)	18 of 74 (24.3%)	13 of 18 (72.2%)	11 of 18 (61.1%)
<b>Hookah</b>	8 of 78 (10.3%)	8 of 9 (88.9%)	8 of 8 (100%)	7 of 74 (9.5%)	4 of 7 (57.1%)	6 of 7 (85.7%)

In 2020, menthol cigarettes were available in all stores in Columbia and Lee’s Summit, and most stores that sold cigarettes in Evanston. Menthol-flavored cigarillos, little cigars, or blunts (LCCs) were more widely available in Columbia than in the other two cities, but other-flavored LCCs were available at all stores that sold any LCCs. Menthol traditional cigars were also more widely available in Columbia, though fewer stores sold them overall. Menthol-flavored chew, snuff, dip, or snus (smokeless tobacco) was more widely available than other flavors in both Lees’ Summit and Evanston, and equally as available in Columbia. Menthol-flavored e-cigarettes were more widely available than other-flavored e-cigarettes across all three cities. Hookah tobacco was not widely sold in stores assessed in any of the cities. With the exception of non-menthol cigarettes in Evanston and traditional cigars in Lee’s Summit and Evanston, flavored versions of each tobacco product were as available or more available than non-flavored versions across the three cities.

Product Availability: 2020									
Product Sold	Columbia			Lee's Summit			Evanston		
	Any n of N (%)	Menthol -Flavor n of N (%)	Other-Flavor n of N (%)	Any n of N (%)	Menthol -Flavor n of N (%)	Other-Flavor n of N (%)	Any n of N (%)	Menthol -Flavor n of N (%)	Other-Flavor n of N (%)
Cigarettes	64 of 74 (86.5%)	64 of 64 (100%)	N/A	27 of 29 (93.1%)	27 of 27 (100%)	N/A	25 of 26 (96.2%)	22 of 24 (91.2%)	N/A
Cigarillos, little cigars, or blunts	61 of 74 (82.4%)	58 of 60 (96.7%)	60 of 60 (100%)	25 of 28 (89.3%)	17 of 24 (70.8%)	24 of 24 (100%)	18 of 26 (69.2%)	11 of 18 (61.1%)	18 of 18 (100%)
Traditional cigars	11 of 74 (14.9%)	11 of 11 (100%)	7 of 11 (63.6%)	2 of 28 (7.1%)	1 of 2 (50.0%)	1 of 2 (50.0%)	7 of 26 (14.9%)	1 of 5 (20.0%)	2 of 5 (40.0%)
Chew, snuff, dip, or snus	61 of 74 (82.4%)	60 of 61 (98.4%)	60 of 61 (98.4%)	23 of 28 (82.1%)	22 of 22 (100%)	21 of 23 (91.3%)	15 of 26 (57.7%)	13 of 14 (92.9%)	7 of 14 (50.0%)
E-cigarette products	58 of 74 (78.4%)	56 of 58 (96.6%)	55 of 58 (94.8%)	18 of 28 (64.3%)	17 of 18 (94.4%)	13 of 18 (72.2%)	16 of 25 (64.0%)	12 of 14 (85.7%)	8 of 14 (57.1%)
Hookah	1 of 74 (1.4%)	0 of 1 (0%)	1 of 1 (100%)	0 of 28 (0%)	---	---	0 of 24 (0%)	--	--

Product Availability: 2020						
Product Sold	Columbia		Lee's Summit		Evanston	
	Any Flavor n of N (%)	Non-Flavored n of N (%)	Any Flavor n of N (%)	Non-Flavored n of N (%)	Any Flavor n of N (%)	Non-Flavored n of N (%)
Cigarettes	64 of 64 (100%)*	64 of 64 (100%)	27 of 27 (100%)	27 of 27 (100%)	22 of 24 (91.2%)*	25 of 25 (100%)
Cigarillos, little cigars, or blunts	60 of 61 (98.4%)	60 of 61 (98.4%)	24 of 25 (96.0%)	24 of 25 (96.0%)	18 of 18 (100%)	17 of 18 (94.4%)
Traditional cigars	11 of 11 (100%)	8 of 11 (72.7%)	1 of 2 (50%)	2 of 2 (100%)	2 of 5 (40%)	6 of 6 (100%)
Chew, snuff, dip, or snus	61 of 61 (100%)	58 of 61 (95.1%)	23 of 23 (100%)	22 of 22 (100%)	13 of 14 (92.9%)	13 of 14 (92.9%)
E-cigarette products	57 of 58 (98.3%)	54 of 58 (93.1%)	18 of 18 (100%)	17 of 18 (94.4%)	13 of 14 (92.9%)	11 of 13 (84.6%)
Hookah	1 of 1 (100%)	0 of 1 (0%)	---	---	--	--

## Availability of Specific Flavored Tobacco Products

<b>Cigarillos, Little Cigars, or Blunts with Ambiguous Flavors</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee's Summit</b>	<b>Evanston</b>
<b>Retail availability</b>	52 of 71 (73.2%)	38 of 45 (84.4%)	36 of 61 (59.0%)	19 of 25 (76.0%)	14 of 17 (82.4%)
<b>Common flavor names</b>	Jazz, Casino	Coco Blue, Diamond, Blue	Tropical Fusion, Wild Rush	Tropical Fusion, Wild Rush	Jazz, Wild Rush

<b>Cigarettes with menthol capsules in the filter (e.g. Camel Crush, Marlboro NXT)</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee's Summit</b>	<b>Evanston</b>
<b>Retail availability</b>	46 of 68 (67.7%)	31 of 67 (46.3%)	59 of 64 (92.2%)	23 of 26 (88.5%)	21 of 22 (95.5%)

### **Availability of menthol cigarettes**

Menthol cigarettes were available at all stores that sold cigarettes in Columbia and Lee's Summit and available at all but two stores in each of the cities of Dayton, Cleveland, and Evanston. While we analyzed the availability of these products by the proportion of African American residents and the proportion residents living below poverty in census tracts across the cities, we are not reporting those results here given the ubiquitous nature of menthol cigarette availability.

### **Availability of E-Cigarette Products**

E-cigarette products were more widely available in the cities where stores were assessed in 2020 than in those assessed in 2018-2019. Single disposable e-cigarettes were available in more than three-quarters of the stores in Evanston, compared to about a third of stores in Columbia and Lee's Summit. Data in Evanston was also largely collected in July and August 2020, whereas the data was collected in Columbia and Lee's Summit between January and March of 2020. It's possible that the changing e-cigarette landscape, with the increase in use of disposable e-cigarettes as restrictions of the sale of flavored versions of other types of e-cigarettes went into effect. However, pod-mod style e-cigarettes were still more widely available than disposables in each of the cities surveyed in 2020.

<b>Availability of E-Cigarette Products</b>					
<b>Product</b>	<b><u>Dayton</u></b>	<b><u>Cleveland</u></b>	<b><u>Columbia</u></b>	<b><u>Lee's Summit</u></b>	<b><u>Evanston</u></b>
<b>E-cigarette products (any)</b>	36 of 79 (45.6%)	18 of 74 (24.3%)	58 of 74 (78.4%)	18 of 28 (64.3%)	16 of 25 (64.0%)
<b>E-liquid in droppers</b>	17 of 35 (48.6%)	6 of 18 (33.3%)	7 of 58 (12.1%)	5 of 18 (27.8%)	0 of 13 (0%)
<b>Single disposable e-cigarettes</b>	N/A	N/A	21 of 58 (36.2%)	6 of 18 (33.3%)	10 of 13 (76.9%)
<b>Pod mods</b>	21 of 35 (60%)	10 of 18 (55.6%)	58 of 58 (100%)	16 of 18 (88.9%)	14 of 15 (93.3%)
• <b>Pod mod devices</b>	N/A	N/A	52 of 58 (89.7%)	16 of 16 (100%)	12 of 14 (85.7%)
• <b>Pod mod cartridges</b>	N/A	N/A	55 of 57 (96.5%)	13 of 16 (81.3%)	11 of 12 (91.7%)
• <b>Pod mod starter kits</b>	N/A	N/A	19 of 57 (33.3%)	6 of 16 (37.5%)	1 of 12 (8.3%)
<b>"Zero nicotine" e-cigarettes</b>	17 of 36 (47.2%)	5 of 18 (27.8%)	6 of 58 (10.3%)	1 of 18 (5.6%)	1 of 15 (6.7%)

### Flavored Tobacco Product Inventory

In 2020, data collectors were asked to estimate the percent of each store's inventory that menthol-flavored tobacco products, other-flavored tobacco products, and non-flavored tobacco products each comprised.

Across stores in Columbia, data collectors most commonly estimated that:

- Menthol tobacco products comprised 26-50% of the total tobacco inventory
- Other-flavored tobacco products comprised 11-25% of total tobacco inventory
- Non-flavored tobacco products comprised 11-25% of the total tobacco inventory.

Across stores in Evanston, data collectors most commonly estimated that:

- Menthol tobacco products comprised 11-25% of the total tobacco inventory
- Other-flavored tobacco products comprised less than 10% of the total tobacco inventory
- Non-flavored tobacco products comprised 26-50% of the total tobacco inventory.

Across stores in Columbia, data collectors most commonly estimated that:

- Menthol tobacco products comprised 11-25% of the total tobacco inventory
- Other-flavored tobacco products comprised less than 10% of the total tobacco inventory
- Non-flavored tobacco products comprised 26-50% of the total tobacco inventory.

## Prices

In 2018-2019, across products, a greater proportion of stores in Dayton offered price promotions than in Cleveland. Similarly, in 2020, across products, a greater proportion of stores in Columbia offered price promotions than in either Lee’s Summit or Evanston. This is in line with research showing that prices are often lower and discounts on tobacco products are steeper in lower-income areas,<sup>72 73</sup> given that Columbia has a greater poverty rate than either Lee’s Summit or Evanston.

Price Promotions: 2018-2019								
Product	Dayton				Cleveland			
	Any n of N (%)	Menthol Flavor n of N (%)	Other Flavor n of N (%)	Any Flavor n of N (%)	Any n of N (%)	Menthol Flavor n of N (%)	Other Flavor n of N (%)	Any Flavor n of N (%)
Cigarettes	50 of 83 (60.2%)	48 of 49 (98.0%)	N/A	N/A	34 of 71 (47.9%)	30 of 34 (88.2%)	N/A	N/A
Cigarillos, little cigars, or blunts	48 of 76 (63.2%)	33 of 43 (76.7%)	36 of 44 (81.8%)	41 of 50 (82%)	28 of 63 (44.4%)	15 of 25 (60.0%)	22 of 28 (78.6%)	22 of 28 (78.7%)
Chew, snuff, dip, or snus	24 of 54 (44.4%)	24 of 24 (100%)	21 of 23 (91.3%)	25 of 29 (86.2%)	4 of 19 (21.1%)	4 of 4 (100%)	2 of 4 (50.0%)	6 of 8 (75.0%)
E-cigarette products	19 of 37 (51.4%)	16 of 19 (84.2%)	15 of 19 (79.0%)	17 of 19 (89.5%)	4 of 18 (22.2%)	2 of 4 (50.0%)	2 of 4 (50.0%)	2 of 4 (50.0%)
Hookah	5 of 9 (55.6%)	4 of 5 (80.0%)	4 of 5 (80.0%)	16 of 21 (76.2%)	1 of 7 (14.3%)	0 of 1 (0%)	0 of 1 (0%)	2 of 5 (40.0%)

Price Promotions: 2020									
Product Sold	Columbia			Lee’s Summit			Evanston		
	Any n of N (%)	Menthol Flavor n of N (%)	Other Flavor n of N (%)	Any n of N (%)	Menthol Flavor n of N (%)	Other Flavor n of N (%)	Any n of N (%)	Menthol Flavor n of N (%)	Other Flavor n of N (%)
Cigarettes	41 of 64 (64.1%)	40 of 40 (100%)	N/A	15 of 27 (55.6%)	12 of 15 (80.0%)	N/A	7 of 25 (28%)	6 of 7 (85.7%)	N/A
Cigarillos, little cigars, or blunts	23 of 61 (37.7%)	22 of 23 (95.7%)	21 of 23 (91.3%)	7 of 24 (29.2%)	2 of 3 (66.7%)	6 of 7 (85.7%)	2 of 18 (11.1%)	---	1 of 1 (100%)
Chew, snuff, dip, or snus	46 of 61 (75.4%)	46 of 46 (100%)	45 of 46 (97.8%)	9 of 23 (39.1%)	8 of 9 (88.9%)	5 of 7 (71.4%)	1 of 14 (7.1%)	---	---
E-cigarette products	40 of 57 (70.2%)	37 of 40 (92.5%)	35 of 39 (89.7%)	5 of 18 (27.8%)	1 of 4 (25.0%)	0 of 4 (0%)	1 of 15 (6.7%)	0 of 1 (0%)	---
Hookah	0 of 1 (0%)	--	--	---	--	--	---	--	--

Price Promotions: 2020						
	Columbia		Lee's Summit		Evanston	
Product Sold	Any Flavor n of N (%)	Non-Flavored n of N (%)	Any Flavor n of N (%)	Non-Flavored n of N (%)	Any Flavor n of N (%)	Non-Flavored n of N (%)
Cigarettes	40 of 40 (100%)	41 of 41 (100%)	12 of 15 (80.0%)	14 of 15 (93.3%)	6 of 7 (85.7%)	7 of 7 (100%)
Cigarillos, little cigars, or blunts	23 of 23 (100%)	21 of 23 (91.3%)	6 of 7 (85.7%)	6 of 7 (85.7%)	1 of 1 (100%)	1 of 1 (100%)
Chew, snuff, dip, or snus	46 of 46 (100%)	44 of 45 (97.8%)	8 of 9 (88.9%)	7 of 9 (77.8%)	---	---
E-cigarette products	37 of 41 (90.2%)	35 of 39 (89.7%)	1 of 5 (20.0%)	3 of 5 (60.0%)	0 of 1 (0%)	---
Hookah	--	--	--	--	--	--

Mobile tobacco coupons are emerging trend wherein coupons are sent to customers phone or downloadable from tobacco company website and redeemable at brick-and-mortar retailers.

Mobile tobacco coupons					
	Dayton	Cleveland	Columbia	Lee's Summit	Evanston
Retail availability	22 of 80 (27.5%)	6 of 74 (81.0%)	11 of 71 (15.5%)	4 of 29 (13.8%)	0 of 26 (0%)

Average Product Prices					
	Dayton	Cleveland	Columbia	Lee's Summit	Evanston
Newport Menthol cigarette pack	\$6.91	\$7.49	\$5.62	\$5.82	\$13.17
Cheapest cigarette pack	\$4.95	\$5.89	\$4.06	\$4.07	\$11.56
Cheapest menthol cigarette pack	N/A	N/A	\$4.06	\$4.38	\$11.80
Blu single disposable menthol e-cigarette	\$7.97	\$11.66	N/A	N/A	N/A
Cheapest single disposable e-cigarette	N/A	N/A	\$8.09	\$2.66	\$8.74
Cheapest e-liquid	N/A	N/A	\$7.99 Avg 3.2oz	\$1.33 Avg 2.7 oz	---
Cheapest "pod mod" device	N/A	N/A	\$4.16	\$8.56	\$20.99
Cheapest pack of "pod mod" cartridges	N/A	N/A	\$11.37 (\$6.39 per cartridge)	\$9.80 (\$4.08 per cartridge)	\$17.99 (\$4.50 per cartridge)
Cheapest "pod mod" starter kit	N/A	N/A	\$16.10	\$9.99	\$19.99

<b>Cigarillos, Little Cigars, and Blunts: Cheap and Close to Candy</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee's Summit</b>	<b>Evanston</b>
<b>Singles Available</b>	52 of 74 (69.3%)	55 of 62 (88.7%)	49 of 61 (80.3%)	25 of 28 (89.3%)	13 of 18 (72.2%)
<b>Advertised for &lt;\$1</b>	66 of 76 (86.8%)	50 of 61 (82.0%)	59 of 61 (96.7%)	24 of 25 (96.0%)	5 of 17 (29.4%)

#### Price variation by neighborhood

In both Ohio cities as well as in Evanston, prices were cheaper in neighborhoods with more youth, who are a more price-sensitive group. However, this was not the case for the cities in Missouri.

<b>Average Cheapest Cigarette Pack Price by Percentage of Households with Youth Ages 5-17</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee's Summit</b>	<b>Evanston</b>
<b>Census tracts least youth*</b>	\$5.31	\$6.26	\$3.87	\$4.21	\$11.86
<b>Census tracts with most youth**</b>	\$5.13	\$5.51	\$4.23	\$4.30	\$11.34
*Dayton: <13.1%; Cleveland: <10.9%; Columbia: <7.42%; Lee's Summit:<15.95%; Evanston: <10.4%					
**Dayton: >20.7%; Cleveland: >21.1%; Columbia:>17.11%; Lee's Summit:>22.94%; Evanston: >20.10%					

#### Price variation by income level and racial demographics

While lower-income smokers are more likely to purchase discount brand cigarettes,<sup>74</sup> the average cheapest prices were not found in the areas of greatest poverty in Dayton or Cleveland. However, nationally, about 12.3% of the population fell below the poverty line in 2017,<sup>75</sup> whereas the poverty rate was 35.2% in Cleveland and 32.7% in Dayton.<sup>76</sup> The high rates of poverty overall in these two cities may contribute to the lack of price variation seen by census tract compared to variations found nationally, where prices are lower in neighborhoods with more low-income and African-American residents.<sup>77</sup> Income (% of households below the federal poverty level) and race (% African American) are moderately correlated in Cleveland (0.52) and in Dayton (0.56).

The average cheapest overall prices for both non-menthol and menthol cigarettes were found in the areas of greatest poverty in both Evanston (13.3% poverty rate) and Lee's Summit (5.2% poverty rate). In Columbia (22.2% poverty rate), while the average cheapest prices overall were not found in the areas of greatest poverty, the average cheapest price of a pack of cigarettes was lower in the areas with the most people living in poverty than in the areas with the least people living in poverty.

National research has shown Newport menthol cigarettes to be cheaper in geographic areas with a higher proportion of African American residents.<sup>78</sup> Neither the store assessment results in Dayton (39.3% African American), nor in Cleveland (53.3% African-American) showed this pattern. However, the proportion of residents who are African-American in both of these cities is high compared to the proportion of the national population (13.4%),<sup>79</sup> which may have contributed to the lack of price variation compared to national trends.<sup>80</sup>

However, in 2020, the store assessment results in Columbia, which is 10.9% Black or African American<sup>81</sup>, also did not show this pattern for either Newport menthol cigarettes nor the cheapest pack of menthol cigarettes. However, the cheapest advertised price of a pack of non-menthol cigarettes was cheaper in areas of the city with the greatest proportion of Non-Hispanic Black residents. In Evanston (16.6% Black or African American) and in Lee’s Summit (7.8% Black or African American), while Newport menthol cigarettes were not cheaper in areas with more Non-Hispanic Black residents, the cheapest average price for a pack of menthol cigarettes was. In Lee’s Summit, the cheapest advertised price of a pack of non-menthol cigarettes was also cheaper in areas with more Non-Hispanic Black residents. We did not analyze how correlated income and race are in Columbia, Lee’s Summit, and Evanston.

<b>Average Cigarette Pack Prices by Percentage of Households Below the Federal Poverty Level 2018-2019</b>				
	<b>Dayton</b>		<b>Cleveland</b>	
	Cheapest pack	Newport Menthol	Cheapest Pack	Newport Menthol
<b>Census tracts with most household below poverty*</b>	\$5.06	\$7.51	\$6.01	\$7.51
<b>Census tracts with least households below poverty**</b>	\$4.71	\$7.39	\$5.83	\$7.39
<i>*Dayton: 43.9% or more; Cleveland: 49.4% or more    **Dayton: 17.3% or less; Cleveland: 23.6% or less</i>				

<b>Average Cigarette Pack Prices by Percentage of Households Below the Federal Poverty Level: 2020</b>									
	<b>Columbia</b>			<b>Lee’s Summit</b>			<b>Evanston</b>		
	Cheapest Non- menthol pack	Cheapest menthol pack	Newport menthol	Cheapest Non- menthol pack	Cheapest menthol pack	Newport menthol	Cheapest Non- menthol pack	Cheapest menthol pack	Newport menthol
<b>Census tracts with most households below poverty*</b>	\$4.06	\$4.06	\$5.59	\$3.69	\$3.81	\$6.14	\$11.34	\$11.50	\$13.22
<b>Census tracts with least households below poverty**</b>	\$4.15	\$4.15	\$5.53	\$4.13	\$4.35	\$5.79	\$11.86	\$11.70	\$13.07
<i>*Columbia: 45.90% or more; Lee’s Summit: 8.73% or more; Evanston: 24.52% or more ** Columbia: 10.11% or less; Lee’s Summit: 1.24% or less; Evanston: 4.61% or less</i>									

<b>Average Cigarette Pack Prices by Percentage of Non-Hispanic Black Residents: 2018-2019</b>				
	<b>Dayton</b>		<b>Cleveland</b>	
	Cheapest pack	Newport Menthol	Cheapest Pack	Newport Menthol
<b>Census tracts with most African-American residents*</b>	\$4.92	\$6.95	\$6.08	\$7.50
<b>Census tracts with least African-American residents**</b>	\$4.76	\$6.86	\$6.08	\$7.45
<i>*Dayton: 82.9% or more; Cleveland: 94.9% or more **Dayton: 5.5% or less; Cleveland: 16.1% or less</i>				

<b>Average Cigarette Pack Prices by Percentage of Non-Hispanic Black Residents: 2020</b>									
	<b>Columbia</b>			<b>Lee's Summit</b>			<b>Evanston</b>		
	Cheapest Non-menthol pack	Cheapest menthol pack	Newport menthol	Cheapest Non-menthol pack	Cheapest menthol pack	Newport menthol	Cheapest Non-menthol pack	Cheapest menthol pack	Newport menthol
<b>Census tracts with most African-American residents*</b>	\$4.06	\$4.06	\$5.59	\$3.69	\$3.81	\$6.14	\$11.34	\$11.50	\$13.22
<b>Census tracts with least African-American residents**</b>	\$4.15	\$4.06	\$5.53	\$4.13	\$4.35	\$5.79	\$11.86	\$11.70	\$13.07
<i>*Columbia: 18.10% or more; Lee's Summit: 9.17% or more; Evanston: 34.51% or more ** Columbia: 4.02% or less; Lee's Summit: 3.71% or less; Evanston: 3.83% or less</i>									

**Promotion**

In both Ohio cities, more than 70% of tobacco retailers surveyed had exterior tobacco advertisements. Of those retailers, in both cities over 90% included ads for flavored tobacco products.

Specifically, in Dayton, 67 of 86 (77.9%) tobacco retailers surveyed in Dayton had exterior ads for tobacco products. Of those,

- 64 of 66 (97%) had exterior ads for flavored tobacco products
- 59 of 64 (92.2%) had exterior ads for non-menthol cigarettes
- 60 of 65 (92.3%) had exterior ads for menthol cigarettes

In Cleveland, 52 out of 73 (71.2%) retailers in Cleveland had exterior ads for tobacco products.

- 47 out of 51 (92.2%) had exterior ads for any flavored tobacco products
- 41 out of 52 (78.9%) had exterior ads for non-menthol cigarettes
- 38 out of 51 (74.5%) had exterior ads for menthol cigarettes

In Columbia, 47 out of 75 (62.7%) retailers in Columbia had exterior ads for tobacco products.

- 39 out of 47 (83.0%) had exterior ads for any flavored tobacco products
- 30 out of 47 (63.8%) had exterior ads for non-menthol cigarettes
- 27 out of 47 (57.5%) had exterior ads for menthol cigarettes

In Lee’s Summit, 10 out of 30 (33.3%) retailers in Columbia had exterior ads for tobacco products.

- 5 out of 10 (50%) had exterior ads for any flavored tobacco products
- 8 out of 10 (80%) had exterior ads for non-menthol cigarettes
- 4 out of 10 (40%) had exterior ads for menthol cigarettes

In Evanston, 8 out of 26 (30.8%) retailers in Evanston had exterior ads for tobacco products.

- 4 out of 8 (50%) had exterior ads for any flavored tobacco products
- 8 out of 8 (100%) had exterior ads for non-menthol cigarettes
- 3 of 8 (97.5%) had exterior ads for menthol cigarettes

Ads for cigarillos, little cigars, or blunts were the most prevalent in both cities assessed in 2018-2019. In Dayton, exterior advertisements for smokeless tobacco (chew, snuff, dip, or snus) and e-cigarettes were more common than in Cleveland. Exterior ads for flavored cigarillos, little cigars, or blunts; smokeless tobacco, and e-cigarettes were common in both cities.

For the cities with store assessments conducted in 2020, exterior advertisements for e-cigarettes were the most common, followed by exterior advertisements for smokeless tobacco. Exterior ads for any tobacco products were more prevalent at stores in Columbia than in Lees’ Summit or Evanston. Ads for flavored smokeless tobacco were more prevalent or equally prevalent as ads for non-flavored smokeless tobacco across all three cities. Ads for flavored e-cigarettes were present at the same number of stores as ads for non-flavored e-cigarettes in Columbia, but at fewer stores in Lee’s Summit and Evanston.

<b>Exterior Advertisements: Other Tobacco Products: 2018-2019</b>				
	<b>Dayton</b>		<b>Cleveland</b>	
	<b>% of retailers with any exterior ads</b> n of N (%)	<b>% of retailers with exterior ads for flavored products</b> n of N (%)	<b>% of retailers with any exterior ads</b> n of N (%)	<b>% of retailers with exterior ads for flavored products</b> n of N (%)
<b>Cigarillos, little cigars, or blunts</b>	44 of 66 (66.7%)	32 of 39 (82.1%)	44 of 52 (84.6%)	37 of 43 (86.1%)
<b>Traditional cigars</b>	14 of 58 (24.1%)	14 of 17 (82.4%)	14 of 52 (26.9%)	8 of 13 (61.5%)
<b>Chew, snuff, dip or snus</b>	34 of 59 (57.6%)	28 of 32 (87.5%)	11 of 52 (21.5%)	6 of 6 (100%)
<b>E-cigarette products</b>	22 of 62 (35.5%)	18 of 21 (85.7%)	4 of 52 (7.7%)	3 of 4 (75%)
<b>Hookah</b>	11 of 54 (20.4%)	6 of 16 (37.5%)	2 of 52 (3.9%)	2 of 2 (100%)

Exterior Advertisements: Other Tobacco Products: 2020									
	Columbia			Lee's Summit			Evanston		
	Any	Flavored	Non-Flavored	Any	Flavored	Non-Flavored	Any	Flavored	Non-Flavored
<b>Cigarillos, little cigars, or blunts</b>	15 of 47 (31.9%)	11 of 15 (73.3%)	13 of 15 (86.7%)	1 of 8 (12.5%)	---	---	1 of 8 (12.5%)	---	---
<b>Traditional cigars</b>	0 of 46 (0%)	--	--	0 of 10 (0%)	---	---	0 of 8 (0%)	--	--
<b>Chew, snuff, dip or snus</b>	27 of 47 (57.5%)	27 of 27 (100%)	26 of 27 (96.3%)	2 of 9 (22.2%)	2 of 2 (100%)	1 of 2 (50.0%)	2 of 8 (25.0%)	2 of 2 (100%)	2 of 2 (100%)
<b>E-cigarette products</b>	41 of 47 (87.2%)	15 of 41 (36.6%)	15 of 40 (37.5%)	5 of 9 (55.6%)	0 of 6 (0%)	3 of 6 (50.0%)	4 of 8 (50.0%)	1 of 4 (25.0%)	3 of 4 (75.0%)
<b>Hookah</b>	0 of 47 (0%)	--	--	0 of 10 (0%)	---	---	0 of 8 (0%)	--	--

### Exterior Advertisements at Retailers Near Schools

When there are more tobacco retailers near schools, youth are more likely to experiment with smoking<sup>82</sup> and schools with more retailers within walking distance have higher smoking prevalences than schools with fewer retailers nearby.<sup>83</sup>

- In Dayton, 19 of 86 (22.1%) tobacco retailers surveyed were located within 1000ft of a school, and 14 of 15 (93.3%) tobacco retailers located within 1000ft of schools had exterior advertisements for flavored tobacco products compared to 50 of 51 (98.0%) tobacco retailers greater than 1000ft away from a school.
- In Cleveland, 34 of 74 (46%) of tobacco retailers surveyed (n=74) were located within 1000ft of a school, and 25 out of the 25 (100%) surveyed retailers located within 1000ft of schools had exterior advertisements for flavored tobacco products compared to 22 out of 26 (84.6%) of surveyed retailers located greater than 1000ft away from a school.
- In Columbia, 11 of 75 (14.7%) of tobacco retailers surveyed were located within 1000ft of a school, and 5 out of the 11 (45.5%) surveyed retailers located within 1000ft of schools had exterior advertisements for flavored tobacco products, as did 34 of 64 (53.1%) of surveyed retailers located greater than 1000ft away from a school
- In Lee's Summit, 4 out of the 30 (13.3%) surveyed tobacco retailers were located within 1000ft of a school, and 0 out of the 4 (0%) surveyed retailers located within 1000ft of schools had exterior advertisements for flavored tobacco products, while 5 out of the 26 (19.2%) surveyed retailers located greater than 1000ft away from a school had exterior advertisements for flavored products.
- In Evanston, 9 of 26 (34.6%) of tobacco retailers surveyed were located within 1000ft of a school, and 1 out of the 9 (11.1%) surveyed retailers located within 1000ft of schools had exterior advertisements for flavored tobacco products compared to 3 out of 17 (17.7%) of surveyed retailers located greater than 1000ft away from a school.

## Exterior Advertisements by Neighborhood Demographics

Menthol cigarettes have been disproportionately targeted to African Americans for decades. Marketing for menthol tobacco products is more prevalent in urban neighborhoods and neighborhoods with more black residents.<sup>84</sup> Neighborhoods with a greater proportion of Black or lower-income residents also have more marketing for little cigars and cigarillos.<sup>85</sup> In Columbia, Lee’s Summit, and Evanston, while we compared the proportion of retailers with exterior advertisements for menthol cigarettes and the proportion of retailers with exterior advertisements for flavored little cigars, cigarillos, or blunts in census tracts with the least proportion of African American residents to the census tracts with the most African American residents, as well as in census tracts with the most households living below the poverty level to census tracts with the lowest proportion of households living below the poverty level, we are not reporting these percentages. Given the small number of retailers in each tract, we are not able to draw any conclusions about this data. We did not complete this analysis for the stores assessed in Dayton or Cleveland and 2018-2019

### Product Placement

While cigarettes and smokeless tobacco products are required by federal law to be kept behind the counter, other tobacco products, including flavored products, are permitted to be displayed within easy reach of youth without clerk assistance. Self-service displays were more prevalent in Dayton than in Cleveland. In both cities, they were most prevalent for cigarillos, little cigars, or blunts. Retailers in Columbia, Lee’s Summit, and Evanston had fewer self-service displays overall, and they were most prevalent for traditional cigars.

<b>Retailers with Tobacco Products in Self-Service Displays</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee’s Summit</b>	<b>Evanston</b>
<b>Cigarillos, little cigars, or blunts</b>	29 of 71 (40.9%)	9 of 62 (14.5%)	4 of 61 (6.6%)	2 of 25 (8.0%)	1 of 17 (5.9%)
<b>Traditional cigars</b>	11 of 18 (61.1%)	6 of 22 (27.3%)	3 of 11 (27.3%)	1 of 2 (50.0%)	2 of 6 (33.3%)
<b>E-cigarette products</b>	10 of 33 (30.3%)	3 of 18 (16.7%)	1 of 58 (1.7%)	3 of 18 (16.7%)	0 of 14 (0%)
<b>Hookah</b>	4 of 8 (50%)	0 of 6 (0%)	1 of 1 (100%)	---	---

<b>Retailers with Tobacco Products and Ads Places for Youth Appeal</b>					
	<b>Dayton</b>	<b>Cleveland</b>	<b>Columbia</b>	<b>Lee’s Summit</b>	<b>Evanston</b>
<b>Tobacco products places within 12 inches of youth products, such as candy, ice cream, soda, or toys.</b>	40 of 79 (50.6%)	2 of 72 (2.8%)	1 of 75 (1.3%)	4 of 28 (14.3%)	2 of 26 (7.7%)
<b>Tobacco advertisements placed within 3 ft of the floor right at kids’ eye level.</b>	41 of 76 (54.0%)	12 of 74 (16.2%)	4 of 74 (5.4%)	7 of 29 (24.1%)	4 of 26 (15.4%)

## Discussion

### Next steps

Local governments across the country have taken action since 2009 to restrict the sale of flavored tobacco products. As of June 2020, 318 localities have passed restrictions on the sale of flavored tobacco products, 117 of which include menthol tobacco products. Some places that originally excluded menthol cigarettes from their policies are now amending their laws to include them. These policies take various forms, from restricting the sale of all flavored tobacco products to adult-only stores (e.g. tobacco shops, liquor stores), as has been done in Minneapolis and St. Paul, MN, to a comprehensive sales ban as seen in San Francisco, CA. While some places have also restricted the sale of flavored products near schools, this approach can pose some challenges, from determining which stores fall within the given radius to the need for educating those stores on the policy, to ensuring ongoing enforcement in conducted at the appropriate stores.

As of August 31, 2020, two states (Massachusetts and California) have passed policies prohibiting the sale of flavored tobacco products; Massachusetts' policy only exempts sales for on-premise consumption at smoking bars, while California's policy exempts loose leaf tobacco, premium cigars, and hookah tobacco. Other states have prohibited the sale of specific flavored tobacco products, including non-premium flavored cigars in Maine and flavored e-cigarettes in New York, New Jersey, and Rhode Island. Utah and Maryland also prohibit the sale of some flavored e-cigarette products.

Given the broad availability of flavored tobacco product in all participating cities, any policy that restricts the sale of flavored tobacco product is likely to benefit public health in these locales. In both Dayton and Cleveland, all or nearly all stores near schools sold and advertised flavored tobacco products outside. Across Columbia, Lee's Summit, and Evanston, fewer stores overall had exterior advertisements for tobacco products. While over 45% of stores near schools in Columbia had exterior ads for flavored tobacco products, only 1 of the 11 stores near schools in Evanston did and none of the 4 stores near schools in Lee's Summit did. Exposure to tobacco marketing and advertising contributes to youth tobacco use initiation.<sup>86</sup> Children and adolescents more frequently exposed to point-of-sale tobacco promotion have 1.6 times higher odds of having tried smoking and 1.3 times higher odds of being susceptible to future smoking compared to those less frequently exposed.<sup>87</sup> Restricting the sale of flavored tobacco products at stores near schools would likely reduce youth exposure to the products. Restricting the sale of tobacco products to adult-only stores (e.g. tobacco shops; vape shops; and/or beer, wine, or liquor stores) would further reduce youth exposure to tobacco, as specialty tobacco shops, which are often adult-only, comprised only 6% of the surveyed stores in Dayton, and in Cleveland, tobacco shops comprised only 1.4% while vape shops were only 2.7%. The same may be the case in Evanston, where these store types comprised 7.7% of the stores. However, in Columbia, adult-only shops comprised 32% of the tobacco retailers, and in Lee's Summit they comprised 10%, so limiting the sale of flavored tobacco to those stores would not reduce exposure as much. In addition, localities around the country that have taken this approach have often seen a rise in the number of these type of shops, with some stores splitting their business in two to be able to continue to sell flavored products. To avoid this, localities could institute a cap on the number of licenses issued to this type of store. However, prohibiting the sale of all flavored tobacco products in all stores would likely

have the greatest benefit for public health, and increasing numbers of local and state governments are taking action to do so.

While hookah is one of the most popular flavored tobacco products among youth, it was available in only about 10% of store surveyed in both Dayton and Cleveland, though of those stores, nearly all sold flavored hookah. It was only available at one store surveyed in Columbia, and none in Lee's Summit or Evanston. However, ensuring that any restrictions on the sale of flavored tobacco products that are adopted include hookah is important given the product's popularity among youth and young adults, its disproportionate use among certain communities, and the health risks of the products.<sup>88</sup>

Like other products, flavored versions of smokeless tobacco are most popular among youth, with nearly two-thirds of high school students who use smokeless tobacco using flavored smokeless tobacco.<sup>89</sup> Smokeless tobacco, popular in the Midwest, was available at more than two-thirds of stores in Dayton (68.8%), while available at only about a quarter of stores in Cleveland (25.7%). While menthol- and other-flavored smokeless tobacco were also available are a higher percentage of stores in Dayton (menthol-flavored in 98.1% and other-flavored 88.5%), most stores that sold smokeless tobacco in Cleveland still had flavored versions available with 84.2% selling menthol-flavored and 63.2% selling other flavors. Flavored smokeless tobacco was available all stores that sold the products in Columbia and Lee's Summit, and all but one in Evanston. Of these stores, more sold mint, menthol, or wintergreen flavored smokeless tobacco than other flavors.

In Cuyahoga County, where Cleveland is located, 13.1% of high school students reported current cigar use (including cigarillos and little cigars) in 2017, compared to 6.2% that reported current cigarette use.<sup>90</sup> Cigarillos, little cigars, and blunts are very widely available in Cleveland (sold at 85.1% of stores). Given the high prevalence of flavored cigarillos, little cigars, and blunts in Cleveland and the city's high rate of youth use of these products, Cleveland could also consider minimum pricing and pack sizes to further restrict youth access.

Cigarillos, little cigars, and blunts were similarly widely available in Columbia (82.4% of stores) and in Lee's Summit (89.3% of stores). Though somewhat less available in Evanston (69.2% of stores), a large majority of tobacco retailers still sold them, and nearly all sold flavored versions. Of stores that sold them, 96.7% of stores in Columbia sold mint, menthol, or wintergreen flavored versions, as did 70.8% of stores in Lee's Summit, and 61.1% of stores in Evanston. In addition, all of the stores selling cigarillos, little cigars, or blunts sold them in flavors other than mint, menthol, or wintergreen.

Availability of cigarettes with menthol capsules in the filter was markedly higher at tobacco retailers assessed in 2020 compared to those assess in 2018-2019. Combined with the high availability of cigarillos, little cigars, and blunts in ambiguous flavors across all cities, this highlights the importance of ensuring that any policy restricting or prohibiting the sale of flavored tobacco products includes definitions that are comprehensive enough to cover these products and eliminate any other potential loopholes that the tobacco industry could exploit.

While e-cigarette use has surged nationally among youth, the e-cigarette products were less available than expected in both Dayton and Cleveland, though e-cigarettes were more available in Dayton than

in Cleveland. Dr. Erika Trapl, Associate Director, of the Prevention Research Center for Healthy Neighborhoods at Case Western Reserve University, noted that vaping had not hit the city of Cleveland as much as other markets, though in the suburbs outside city limits, it is more of an issue. While 15.7% of Cuyahoga County high schoolers reported current e-cigarette use in 2017, those products were less available within the City of Cleveland. In Dayton, data collectors noted that e-cigarettes were less available in the inner city. Recent evidence from other studies are beginning to find disparities in the availability of e-cigarettes. A 2018 study conducted in New York City found that potentially less harmful products like smokeless tobacco and e-cigarettes were more likely to be sold in neighborhoods with more white and higher-income residents, potentially contributing to these results given the sociodemographic makeup of Cleveland.<sup>91</sup> Similarly, a 2016 study in Milwaukee found the e-cigarettes were more available in predominately white areas of the city.<sup>92</sup>

While e-liquids in droppers were less widely available in Columbia and Lee's Summit, and not available at any stores surveyed in Evanston, "pod mod" style products were available at all stores selling any e-cigarettes in Columbia, all but two in Lee's Summit, and all but one in Evanston. This widespread availability of pod mods persists despite the federal sales restrictions on flavored e-cigarettes of this style. While the survey form used in 2018-2019 did not ask about availability of single disposable e-cigarettes other than the brand blu, these products were available at about a third of stores selling any e-cigarettes in Columbia and Lee's Summit, and at over three-quarter of stores selling any e-cigarettes in Evanston. Due to the COVID-19 pandemic, the majority of data collected in Evanston occurred in July and August 2020, while data collected in Columbia and Lee's Summit occurred mostly in February and March 2020. This may have had an impact on the greater availability of disposable e-cigarettes like Puff Bar in Evanston, given that these products were exempt from the federal restrictions on some other types of flavored e-cigarettes.

One of the largest differences between the cities located within Tobacco Nation and Evanston, the one participating city located outside of that region, is prices. Prices for cigarettes in Evanston were nearly double those in Columbia, Lee's Summit, Dayton, and Cleveland, and prices in Evanston were somewhat higher for e-cigarette products as well. This is unsurprising given the differences in cigarette excise taxes between Illinois (\$2.98 per pack) and Missouri (\$0.17 per pack),<sup>93</sup> but is important given that raising prices is one of the most effective strategies for reducing tobacco use initiation, decreasing consumption, and increasing cessation.<sup>94</sup>

## Challenges and Lessons Learned

**Turnover.** Turnover both at local health departments or community organizations and at local-level governing bodies can pose a challenge to or delay successful point-of-sale policy change.

**Identifying specific flavors and price promotions on specific flavors on crowded shelves.** Store assessments collect vital information and evidence documenting tobacco industry marketing and promotion tactics at the point of sale. Because of menthol's differential treatment at the federal level, we thought it important to separately collect data on menthol-flavored tobacco products and other-flavored tobacco products. However, given the wide range of flavors available, particularly for e-cigarettes and cigarillos, little cigars, and blunts, it can be a challenge for data collectors to

determine without closely examining each product whether the products are mint-, menthol-, or wintergreen flavored or some other flavor with green-colored packaging. Because of this challenge, we did not require a yes or no answer to those questions in order to avoid erroneous data. However, as a consequence, several questions asking about flavored versions of tobacco product had a fair amount of missing data.

**Monitoring data collection.** In order to reduce the amount of missing data, it is important to monitor data collection to ensure all questions on the survey form are completed for every product. Without follow-up, we do not know whether data is missing because the answer was unable to be determined or because a data collector using a paper form accidentally skipped the question. Close monitoring allows confirmation or correction for data points that seem outside the norm (e.g. cigarettes advertised for \$1.00). For the purposes of this project, Counter Tools provided initial training through a train-the-trainer model, but some information can get lost in translation, particularly when turnover in project management or data collector roles occurs.

**Time and capacity.** A store assessment campaign is ideally carefully planned to engage data collectors strategically. Even with the support of a mobile data collection and management tool such as the Store Audit Center, it takes time to recruit, train, and manage volunteers. In order to ensure sufficient staff time, capacity, and funding, local organizations and governments wishing to conduct store assessments should include it in their workplans for the year. The cities involved in this campaign were able to fit it into their existing workplans but had the benefit of the data collection software for efficiency as well as training and technical assistance to support the project and set them up for success.

**Use of paper forms and enforcement of skip logic.** This form includes several questions with complex skip logic. During the 2018-2019 pilot, if data collectors completed the electronic version of the form on a mobile device, it automatically enforced skip logic. However, if data collectors completed a paper version of the form, they may not have followed the skip logic instructions printed on the form. Use of a mobile form should be required or strongly encouraged to ensure skip patterns are followed and both ensure high quality data and minimize data cleaning needs. When data collection teams prefer to use paper forms, lack access to a mobile data collection system, or lack internet connectivity, data should be thoroughly cleaned to manually enforce skip logic.

### The Value of Store Assessments

The value of conducting store assessments goes beyond the use of the data collected. They can also serve as a tool for raising awareness of problems at the point of sale amongst data collectors, who can in turn become advocates for change and raise awareness throughout their communities. For these reasons, Counter Tools recommends involving data collectors strategically. For example, in Cleveland, coordinators from Case Western Reserve University recruited both community residents and student volunteers to collect the data. The community residents in particular were inspired to take action by what they saw in stores and now see the retail environment with different eyes. These community residents are hoping to testify at city council when the city considers restrictions on flavored tobacco products in the future. Involving a diverse group of data collectors can also help put store owners and clerks at ease, particularly in cities that are very segregated and where data collectors who do not match the demographics of the neighborhood may stand out. In Dayton, data collection was done by a

combination of public health staff members and youth from the Montgomery County Juvenile Justice Center. In Columbia and Evanston data collection was done by staff of the participating organizations. In Lee's Summit, the data was collected by trained teens from a city-wide Youth Advisory Board who were supervised by trained adult staff and advisors. The group in Evanston had hoped to be able to involve high school students, but altered their plans due to the COVID-19 pandemic.

Conducting store assessments is also a way to document and identify disparities in point-of-sale advertising and product availability. While the pricing of cigarettes and availability of menthol cigarettes in Dayton and Cleveland did not match national trends of disparity, we only compared the quintile with the most households with African American residents or the most households below the poverty line to the quintile with the least African American residents or the least households below the poverty line. In 2018-2019, we also did not compare differences in advertising or discounting practices for menthol cigarettes or cigarillos and little cigars by neighborhood, which have both also shown disparities nationally. In 2020, store assessment results did show that the cheapest advertised prices for both non-menthol and menthol cigarettes were lower in the areas of greatest poverty in both Evanston and Lee's Summit. While in Columbia, the average cheapest advertised prices overall were not found in the areas of greatest poverty, but the average cheapest advertised price of a pack of cigarettes was lower in the areas with the most people living in poverty than in the areas with the least people living in poverty. While results in 2020 also did not show Newport menthol cigarettes to be cheaper in areas with more Non-Hispanic Black residents, the store assessment results in Columbia showed that the average cheapest advertised price of a pack of non-menthol cigarettes was cheaper in areas with the most Non-Hispanic Black residents; in Evanston, the cheapest average advertised price for a pack of menthol cigarettes was cheaper in areas with the most Non-Hispanic Black residents; and in Lee's Summit, both the average cheapest advertised price of a pack of non-menthol cigarettes and the average cheapest advertised price of menthol cigarettes was cheaper in areas with the most Non-Hispanic Black residents. However, we not conduct statistical tests to identify whether results were significantly different from one another.

Store assessments are also a way to track change in the retail environment over time. Each of these cities can now use this data to compare to previous and/or future store assessment data to track trends in product availability, prices, and promotion. The cities could use this data to assess how changes in federal laws regarding the sale of flavored tobacco products, if implemented, roll out on the ground. In addition, they can use the data to assess how availability of flavored products changes before and after any local or state policies are implemented.

In a 2015 study of a nationally representative sample of counties across the country, counties that had performed retail tobacco assessments were more than six times as likely to have adopted point-of-sale policies than those that had not.<sup>95</sup> While we have not conducted a legal analysis of the state code of laws, Dayton and Cleveland, along with other cities in Ohio, appear to retain the authority the pass local laws regarding the sale of tobacco products. Similarly, these seems to be the case under Missouri law for Columbian and Lee's Summit; as well as under Illinois law for Evanston. However, it is also critical to consult legal experts when considering new policies in order to assure the authority, legality, and comprehensiveness of the policy language. While store assessment data can serve as critical evidence for the need for policy change, documenting the problem is often only the first step. Plugging

the data in to an organized campaign for change; raising awareness of the problem and solution amongst stakeholders, the community at large, and the communities most burdened by tobacco; and persuading decision makers to act are all important next steps in the policy change process. Store assessment data provides a catalyst to this process and a foundation of evidence for change to improve the health of the retail environment and reduce the burden of tobacco related death and disease in our communities.

# Standardized Tobacco Assessment for Retail Settings: Flavored Tobacco (fSTARS)



Version 2.0 fSTARS and its accompanying Training Guide are available for free at [www.countertobacco.org/fSTARS](http://www.countertobacco.org/fSTARS)

YOUR NAME \_\_\_\_\_  
STORE NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
DATE \_\_\_\_\_ START TIME \_\_\_\_\_ END TIME \_\_\_\_\_

## SURVEY

### 1. Can you visit the store?

- Yes [Continue]
- No, store does not exist [Skip to Q20a]
- No, store closed [Continue with Q2-Q5, then skip to Q20a]
- No, under 18 not allowed [Continue with Q2-Q5, then skip to Q20a]
- No, members only [Continue with Q2-Q5, then skip to Q20a]
- No, unsafe [Skip to Q20a]
- No, other reason not listed [Continue with Q2-Q5, then skip to Q20a]

### 2. Does the actual store name match the assigned store name?

- Yes [Continue]
- No – Enter correct name: \_\_\_\_\_

### 3. Does the actual store address match the assigned store address?

- Yes [Continue]
- No – Enter correct address: \_\_\_\_\_

### 4. Choose one best store type:

- Convenience store with gas
- Convenience store without gas
- Drug store or pharmacy
- Beer, wine, liquor store
- Grocery store
- Mass merchandiser
- Tobacco shop
- Vape shop
- Other store type not listed

## EXTERIOR

### 5. Are any tobacco products advertised anywhere outside the store? These are ads on windows/doors facing out, building, sidewalk, gas pumps or elsewhere.

- Yes [Continue]
- No [Skip to Q6a]

If yes, please indicate which of the following products are ADVERTISED anywhere outside the store:

a. Cigarettes – Non-menthol	<input type="checkbox"/> Yes	<input type="checkbox"/> No
b. Cigarettes – menthol	<input type="checkbox"/> Yes	<input type="checkbox"/> No
c. Cigarillos/little cigars/blunts	<input type="checkbox"/> Yes	<input type="checkbox"/> No [Skip to Q5f]
d. FLAVORED cigarillos/little cigars/blunts (including mint, menthol, or wintergreen)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
e. NON-FLAVORED cigarillos/little cigars/blunts	<input type="checkbox"/> Yes	<input type="checkbox"/> No
f. Traditional cigars	<input type="checkbox"/> Yes	<input type="checkbox"/> No [Skip to Q5i]

g. FLAVORED traditional cigars (including mint, menthol, or wintergreen)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
h. NON-FLAVORED traditional cigars	<input type="checkbox"/> Yes	<input type="checkbox"/> No
i. Chew, snuff, dip, or snus?	<input type="checkbox"/> Yes	<input type="checkbox"/> No [Skip to Q5I]
j. FLAVORED chew, snuff, dip, or snus (including mint, menthol, or wintergreen)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
k. NON-FLAVORED chew, snuff, dip, or snus	<input type="checkbox"/> Yes	<input type="checkbox"/> No
l. E-Cigarettes	<input type="checkbox"/> Yes	<input type="checkbox"/> No [Skip to Q5o]
m. FLAVORED e-cigarettes (including mint, menthol, or wintergreen)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
n. NON-FLAVORED e-cigarettes (tobacco flavor only)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
o. Hookah	<input type="checkbox"/> Yes	<input type="checkbox"/> No [Skip to Q6a]
p. FLAVORED hookah (including mint, menthol, or wintergreen)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
q. NON-FLAVORED hookah	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## INTERIOR

### 6a. Is WIC accepted here?

- Yes [Continue]
- No [Continue]
- Unsure [Continue]

### 6b. Is SNAP accepted here?

- Yes [Continue]
- No [Continue]
- Unsure [Continue]

### 7. Are alcoholic beverages sold here?

- Yes [Continue]
- No [Continue]

### 8. Is a pharmacy counter present?

- Yes [Continue]
- No [Continue]

### 9. Is tobacco sold here?

- Yes [Continue]
- No [Skip to Q20a]

### 10. Are there indications that mobile tobacco coupons are accepted here?

- Yes [Continue]
- No [Continue]

### 11. Are ANY tobacco products placed within 12" of youth products?

- Yes [Continue]
- No [Continue]

### 12. Are ANY tobacco products advertised within 3 feet of the floor?

- Yes [Continue]
- No [Continue]

## CIGARETTES

### 13. Answer these questions about CIGARETTES:

- |  |                              |   |
|--|------------------------------|---|
| a. Are any cigarettes SOLD here?   | <input type="checkbox"/> Yes | <input type="checkbox"/> No [Skip to 14a] |
| b. Are any NON-MENTHOL cigarettes SOLD here?                                   | <input type="checkbox"/> Yes | <input type="checkbox"/> No [Skip to 13e] |
| c. Enter CHEAPEST advertised price of a single pack of non-menthol cigarettes: | \$ ____ . ____ ____          |   |

- d. Enter BRAND information for the cheapest single pack of non-menthol cigarettes (e.g. Pall Mall Red): \_\_\_\_\_
- e. Are MENTHOL cigarettes SOLD here?  Yes  No [Skip to 13k]
- f. Enter CHEAPEST advertised price of a single pack of menthol cigarettes: \$ \_\_\_\_ . \_\_\_\_ \_\_\_\_
- g. Enter BRAND information for the cheapest single pack of menthol cigarettes (e.g. Traffic Menthol Green, L&M Menthol, Pall Mall Menthol, etc.): \_\_\_\_\_
- h. Are Newport Menthol cigarette single packs (regular hard pack) sold here?  Yes  No [Skip to 13j]
- i. Enter the advertised price of Newport Menthol cigarette single pack (regular hard pack): \$ \_\_\_\_ . \_\_\_\_ \_\_\_\_
- j. Are any cigarettes with menthol capsules in the filter sold here? (e.g. Camel Crush, Marlboro NXT)?  Yes  No
- k. Are there ANY cigarette price promotions?  Yes  No [Skip to 14a]
- l. Are there any NON-MENTHOL cigarette price promotions?  Yes  No
- m. Are there any MENTHOL cigarette price promotions?  Yes  No

#### CIGARILLOS/LITTLE CIGARS/BLUNTS

##### 14. Answer these questions about CIGARILLOS/LITTLE CIGARS/BLUNTS:

- a. Are any cigarillos, little cigars, or blunts SOLD here?  Yes  No [Skip to 15a]
- b. Are FLAVORED cigarillos, little cigars, or blunts SOLD here?  Yes  No [Skip to 14e]
- c. Are cigarillos, little cigars, or blunts flavored with MINT, MENTHOL, or WINTERGREEN sold here?  Yes  No
- d. Are cigarillos, little cigars, or blunts with flavors OTHER THAN mint, menthol, or wintergreen sold here?  Yes  No
- e. Are NON-FLAVORED cigarillos, little cigars, or blunts sold here?  Yes  No
- f. Any there ANY cigarillos, little cigars, or blunts price promotions?  Yes  No [Skip to 14j]
- g. Any price promotions for cigarillos, little cigars, or blunts flavored with mint, menthol, or wintergreen?  Yes  No
- h. Any price promotions for cigarillos, little cigars, or blunts with flavors OTHER THAN mint, menthol, or wintergreen?  Yes  No
- i. Any price promotions for NON-FLAVORED cigarillos, cigars, or blunts?  Yes  No
- j. Are any cigarillos, little cigars, or blunts with AMBIGUOUS flavor descriptors sold here? (e.g., Black and Mild “Jazz,” Garcia y Vega “Blue,” Swisher Sweets “Island Madness”)  Yes  No
- k. If yes, enter flavor name (include brand name E.g., White Owl “Tropical Twist”) \_\_\_\_\_
- l. Are any SINGLE cigarillos, little cigars, or blunts sold here?  Yes  No
- m. Are any cigarillos, little cigars, or blunts advertised for less than \$1  Yes  No
- n. Are any cigarillos, little cigars, or blunts in self-service displays?  Yes  No

#### TRADITIONAL CIGARS

##### 15. Answer these questions about TRADITIONAL CIGARS:

- a. Are traditional cigars SOLD here?  Yes  No [Skip to 16a]
- b. Are traditional cigars flavored with MINT, MENTHOL, or WINTERGREEN sold here?  Yes  No
- c. Are traditional cigars with flavors OTHER THAN mint, menthol, or wintergreen sold here?  Yes  No

- d. Are NON-FLAVORED traditional cigars sold here?  Yes  No
- e. Are any cigarillos, little cigars, or blunts in self-service displays?  Yes  No

#### CHEW/SNUFF/DIP/SNUS

##### 16. Answer these questions about CHEW/SNUFF/DIP/SNUS:

- a. Is chew, snuff, dip, or snus SOLD here?  Yes  No [Skip to 17a]
- b. Is chew, snuff, dip, or snus flavored with MINT, MENTHOL, or WINTERGREEN sold here?  Yes  No
- c. Is chew, snuff, dip, or snus with flavors OTHER THAN mint, menthol, or wintergreen sold here?  Yes  No
- d. Is NON-FLAVORED chew, snuff, dip, or snus sold here?  Yes  No
- e. Any there ANY price promotions for chew, snuff, dip, or snus?  Yes  No [Skip to 17a]
- f. Any price promotions for chew, snuff, dip, or snus flavored with MINT, MENTHOL, or WINTERGREEN?  Yes  No
- g. Any price promotions for chew, snuff, dip, or snus with flavors OTHER THAN mint, menthol, or wintergreen?  Yes  No
- h. Any price promotions for NON-FLAVORED chew, snuff, dip or snus?  Yes  No

#### E-CIGARETTE PRODUCTS

##### 17. Answer these questions about E-CIGARETTE PRODUCTS:

- a. Are e-cigarette products SOLD here?  Yes  No [Skip to 18a]
- b. Are any e-cigarette products flavored with MINT, MENTHOL, or WINTERGREEN sold here?  Yes  No
- c. Are any e-cigarette products with flavors OTHER THAN mint, menthol, or wintergreen sold here?  Yes  No
- d. Are any NON-FLAVORED e-cigarette products sold here? (tobacco flavor only)  Yes  No
- e. Any there any e-cigarette price promotions?  Yes  No [Skip to 17i]
- f. Any price promotions for e-cigarette products flavored with MINT, MENTHOL, or WINTERGREEN?  Yes  No
- g. Any price promotions for e-cigarette products with flavors OTHER THAN mint, menthol, or wintergreen?  Yes  No
- h. Any price promotions for NON-FLAVORED e-cigarette products? (tobacco flavor only)  Yes  No
- i. Are e-liquid in droppers sold here?  Yes  No [Skip to 17i]
- j. What is the cheapest advertised price of a dropper of e-liquid? \$ \_\_\_\_\_.\_\_\_\_
- k. How many ounces are in the cheapest dropper of e-liquid? \_\_\_\_ oz
- l. Are any single disposable e-cigarettes sold here?  Yes  No [Skip to 17n]
- m. Enter the CHEAPEST advertised price for a single disposable e-cigarette: \$ \_\_\_\_\_.\_\_\_\_
- n. Are any “pod mod” e-cigarette products sold here (e.g. JUUL, MyBlu, Vuse Alto, NJOY ACE, etc.)?  Yes  No
- o. Are any “pod mod” devices sold here?  Yes  No [Skip to 17g]
- p. Enter the CHEAPEST advertised price for a “pod mod” device: \$ \_\_\_\_\_.\_\_\_\_
- q. Are any “pod mod” cartridges sold here?  Yes  No [Skip to 17t]
- r. Enter the CHEAPEST advertised price for a pack of “pod mod” cartridges:

\$ \_\_\_\_\_.\_\_\_\_\_

- s. How many “pod mod” cartridges does the cheapest pack contain? \_\_\_\_\_
- t. Are any “pod mod” starter kits sold here?  Yes  No [Skip to 17v]
- u. Enter the CHEAPEST advertised price for a “pod mod” starter kit: \$ \_\_\_\_\_.\_\_\_\_\_
- v. Are any e-cigarette products advertised as containing zero nicotine sold here?  Yes  No
- w. Are any e-cigarette products in self-service displays?  Yes  No

**HOOKAH/SHISHA/ARGILEH**

**18. Answer these questions about HOOKAH/SHISHA/ARGILEH**

- a. Is hookah SOLD here?  Yes  No [Skip to 19a]
- b. Any hookah flavored with MINT, MENTHOL, or WINTERGREEN sold here?  Yes  No
- c. Any hookah with flavors OTHER THAN mint, menthol, or wintergreen sold here?  Yes  No
- d. Any NON-FLAVORED hookah sold here?  Yes  No
- e. Any hookah with AMBIGUOUS FLAVOR DESCRIPTORS sold here (e.g. Starbuzz “Blue Mist”)?  Yes  No
- f. Any there any hookah price promotions?  Yes  No [Skip to 18j]
- g. Any price promotions for hookah flavored with MINT, MENTHOL, or WINTERGREEN?  Yes  No
- h. Any price promotions for hookah with flavors OTHER THAN mint, menthol, or wintergreen?  Yes  No
- i. Any price promotions for NON-FLAVORED hookah?  Yes  No
- j. Is any hookah in self-service displays?  Yes  No

**TOBACCO PRODUCE INVENTORY**

**19. What percent of the total tobacco inventory in the store is:**

	None	Less than 10%	11-25%	26-50%	51-75%	76-100%
a. Mint, menthol, or wintergreen products	<input type="checkbox"/>					
b. Other-flavored products	<input type="checkbox"/>					
c. Non-flavored products	<input type="checkbox"/>					

**FINISH**

**20a. ALMOST DONE! ANY FIELD NOTES?**

- Yes [Continue]
- No [Skip to end]

**20b. Enter field notes:**

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**THIS IS THE LAST QUESTION. THANKS FOR DOING THE SURVEY!**

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## References

- <sup>1</sup> Courtemanche CJ, Palmer MK, Pesko MF. Influence of the Flavored Cigarette Ban on Adolescent Tobacco Use. *American Journal of Preventive Medicine*. 2017;52(5):e139-e146.
- <sup>2</sup> Ibid
- <sup>3</sup> Delnevo CD, Giovenco DP, Miller Lo, EJ. Changes in the Mass-merchandise Cigar Market since the Tobacco Control Act. *Tobacco Regulatory Science*. 2017;3(2 Suppl 1): S8-S-16.
- <sup>4</sup> Viola AS, Giovenco DP, Miller Lo EJ, et al. A cigar by any other name would taste as sweet. *Tobacco Control*. 2016;25:605-606.
- <sup>5</sup> Farley SM, Schroth KR, Grimshaw V, et al. Flavour chemicals in a sample of non-cigarette tobacco products without explicit flavour names sold in New York City in 2015. *Tobacco Control* 2018;27:170-176.
- <sup>6</sup> Ambrose BK, Day HR, Rostron B. Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014. *JAMA*. 2015; 314(17): 1871-1873. doi:10.1001/jama.2015.13802
- <sup>7</sup> Huang L, Baker HM, Meernik C, et al. Impact of non-menthol flavours in tobacco products on perceptions and use among youth, young adults and adults: a systematic review. *Tobacco Control* 2017;26:709-719
- <sup>8</sup> Sanders-Jackson A, Parikh NM, Schleicher, NC, Fortmann SP, Henriksen L. Convenience store visits by US adolescents: Rationale for healthier retail environments. *Health & Place*. 2015;34: 3-66. doi:10.1016/j.healthplace.2015.03.011
- <sup>9</sup> Chen J, Kettermann A, Ronston BL, Day, HR. Biomarkers of Exposure among U.S. Cigar Smokers: An Analysis of 1999–2012 National Health and Nutrition Examination Survey (NHANES) Data. *Cancer Epidemiol Biomarkers Prev*. 2014; 13(12):2906-2915. DOI: 10.1158/1055-9965.EPI-14-0849
- <sup>10</sup> Chaloupka FJ. Macro-social influences: the effects of prices and tobacco-control policies on the demand for tobacco products. *Nicotine & Tobacco Research* 1999; 1 Supple 1: S105-109.
- <sup>11</sup> Slater SJ, Chaloupka FJ, Wakefield M, Johnston LD, O'Malley PM. The Impact of Retail Cigarette Marketing Practices on Youth Smoking Uptake. *Arch Pediatr Adolesc Med*. 2007;161(5):440–445. doi:10.1001/archpedi.161.5.440
- <sup>12</sup> Federal Trade Commission. FTC Releases Reports on Cigarettes and Smokeless Tobacco Sales and Marketing Expenditures for 2018. December 30, 2019. Accessed October 16, 2020. <https://www.ftc.gov/news-events/press-releases/2019/12/ftc-releases-reports-cigarette-smokeless-tobacco-sales-marketing>
- <sup>13</sup> U.S. Department of Health and Human Services. Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.
- <sup>14</sup> CDC. E-Cigarette, or Vaping, Products Visual Dictionary. Accessed November 8, 2020. [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/pdfs/ecigarette-or-vaping-products-visual-dictionary-508.pdf](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/pdfs/ecigarette-or-vaping-products-visual-dictionary-508.pdf)
- <sup>15</sup> Wang TW, Neff LJ, Park-Lee E, Ren C, Cullen KA, King BA. E-cigarette Use Among Middle and High School Students — United States, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1310–1312. DOI: <http://dx.doi.org/10.15585/mmwr.mm6937e1>.
- <sup>16</sup> <https://www.fda.gov/TobaccoProducts/NewsEvents/ucm605729.htm>
- <sup>17</sup> Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the Field: Increase in use of electronic cigarettes and any tobacco product among middle and high school students – United States, 2011-2018. *MMWR Morbidity & Mortality Weekly Report* 2018; 67(45):1276-1277.
- <sup>18</sup> Wang TW, Neff LJ, Park-Lee E, Ren C, Cullen KA, King BA. E-cigarette Use Among Middle and High School Students — United States, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1310–1312. DOI: <http://dx.doi.org/10.15585/mmwr.mm6937e1>external icon.
- <sup>19</sup> Wang TW, Neff LJ, Park-Lee E, Ren C, Cullen KA, King BA. E-cigarette Use Among Middle and High School Students — United States, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1310–1312. DOI: <http://dx.doi.org/10.15585/mmwr.mm6937e1>external icon.
- <sup>20</sup> CBS News. Juul halts sales of fruit and dessert flavors for e-cigarettes. October 17, 2019. Accessed November 8, 2020. <https://www.cbsnews.com/news/juul-halts-sales-of-fruit-and-dessert-flavors-for-e-cigarettes-vaping-today-2019-10-17/>

- <sup>21</sup> Campaign for Tobacco Free Kids. Juul’s Decision to End Sales of Mint Pods Is Not a Substitute for FDA Action to Remove All Flavored E-Cigarettes. November 7, 2019. Accessed November 8, 2020. [https://www.tobaccofreekids.org/press-releases/2019\\_11\\_07\\_juul\\_mint](https://www.tobaccofreekids.org/press-releases/2019_11_07_juul_mint)
- <sup>22</sup> Diaz MC, Donovan EM, Schillo BA, et al. Menthol e-cigarette sales rise following 2020 FDA guidance. *Tobacco Control* Published Online First: 23 September 2020. doi: 10.1136/tobaccocontrol-2020-05605
- <sup>23</sup> Ali FRM, Diaz MC, Vallone D, et al. E-cigarette Unit Sales, by Product and Flavor Type — United States, 2014–2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1313–1318. DOI: <http://dx.doi.org/10.15585/mmwr.mm6937e2>external icon
- <sup>24</sup> Wang TW, Neff LJ, Park-Lee E, Ren C, Cullen KA, King BA. E-cigarette Use Among Middle and High School Students — United States, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1310–1312. DOI: <http://dx.doi.org/10.15585/mmwr.mm6937e1>external icon.
- <sup>25</sup> Truth Initiative. New federal data: Flavored e-cigarettes continue to drive youth vaping epidemic, with disposable use up 1,000\$ among high schoolers. <https://truthinitiative.org/research-resources/emerging-tobacco-products/new-federal-data-flavored-e-cigarettes-continue-drive>. Accessed November 2, 2020.
- <sup>26</sup> U.S. Food and Drug Administration. FDA Notifies Companies, Including Puff Bar, to Remove Flavored Disposable E-Cigarettes and Youth-Appealing E-Liquids from Market for Not Having Required Authorization. July 20, 2020. Accessed November 8, 2020. <https://www.fda.gov/news-events/press-announcements/fda-notifies-companies-including-puff-bar-remove-flavored-disposable-e-cigarettes-and-youth>
- <sup>27</sup> Campaign for Tobacco Free Kids. FDA Action Against Puff Bar and Other Disposable E-Cigarettes Is a Positive Step to Protect Kids, but Not a Substitute for a Ban on All Flavored Products. July 20, 2020. Accessed November 8, 2020. [https://www.tobaccofreekids.org/press-releases/2020\\_07\\_20\\_fda-puff-bars](https://www.tobaccofreekids.org/press-releases/2020_07_20_fda-puff-bars)
- <sup>28</sup> Truth Initiative. What we know and don’t know about Puff Bar right now. August 19, 2020. Accessed November 8, 2020. <https://truthinitiative.org/research-resources/emerging-tobacco-products/what-we-know-and-dont-know-about-puff-bar-right-now>
- <sup>29</sup> Kuiper NM, Gammon D, Loomis B, Falvey K, Wang TW, King BA, Rogers T. Trends in Sales of Flavored and Menthol Tobacco Products in the United States During 2011–2015. *Nicotine & Tobacco Research*. 2018; 20 (6) 698–706. <https://doi.org/10.1093/ntr/ntx123>
- <sup>30</sup> Cruz TB, Wright L, Crawford G. The Menthol Marketing Mix: Targeted Promotion for Focus Communities in the United States. *Nicotine & Tobacco Research*. 2010;12(s2):S147-S153. <https://doi.org/10.1093/ntr/ntq201>
- <sup>31</sup> Lee JGL, Henriksen L, Rose SW, Moreland-Russell S, Ribisl KM. A systematic review of neighborhood disparities in point-of-sale tobacco marketing. *American Journal of Public Health*. 2015;105(9):E8-E18.
- <sup>32</sup> Roberts ME, Berman ML, Slater MD, Hinton A, Ferkeitch AK. Point-of-sale tobacco marketing in rural and urban Ohio: Could the new landscape of tobacco products widen inequalities? *Preventive Medicine*. 2015;81:231-5. doi: 10.1016/j.ypmed.2015.08.024
- <sup>33</sup> Henriksen L, Schleicher NC, Dauphinee AL, & Fortmann SP. (2012). Targeted Advertising, Promotion, and Price For Menthol Cigarettes in California High School Neighborhoods. *Nicotine & Tobacco Research*, 14(1), 1116-121. doi: 10.1093/ntr/ntr122
- <sup>34</sup> Villanti, AC, et al., “Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004-2014,” *Tobacco Control*, published online October 20, 2016
- <sup>35</sup> Anderson SJ. Marketing of menthol cigarettes and consumer perceptions: a review of tobacco industry documents. *Tobacco Control* 2011;20:ii20-ii28.
- <sup>36</sup> Kuiper KM, Gammon G, Loomis B, Falvey K, Wang TW, King BA, Rogers T. Trends in Sales of Flavored and Menthol Tobacco Products in the United States During 2011–2015. *Nicotine & Tobacco Research*. 2018; 20(6):698–706, <https://doi.org/10.1093/ntr/ntx123>
- <sup>37</sup> Villanti, AC, et al., “Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004-2014,” *Tobacco Control*, published online October 20, 2016
- <sup>38</sup> Cantrell J, Kreslake JM, Ganz O, et al. Marketing Little Cigars and Cigarillos: Advertising, Price, and Associations With Neighborhood Demographics. *American Journal of Public Health*. 2013;103(10):1902-1909. doi:10.2105/AJPH.2013.301362.
- <sup>39</sup> <https://truthinitiative.org/tobaccoconation>
- <sup>40</sup> State Cigarette Excise Tax Rates & Rankings. Campaign for Tobacco Free Kids. Dec 21,2018. Accessed March 7, 2019. <https://www.tobaccofreekids.org/assets/factsheets/0097.pdf>
- <sup>41</sup> 2017 Behavioral Risk Factor Surveillance System, as cited in American Lung Association. State of Tobacco Control 2019: Ohio State Highlights <https://www.lung.org/our-initiatives/tobacco/reports-resources/sotc/state-grades/highlights.html>

- <sup>42</sup> Wang TW, Asman K, Gentzke AS, et al. Tobacco Product Use Among Adults — United States, 2017. *MMWR Morb Mortal Wkly Rep* 2018;67:1225–1232. DOI: <http://dx.doi.org/10.15585/mmwr.mm6744a2>.
- <sup>43</sup> Behavioral Risk Factor Surveillance System, 2011-2013, as reported in the Montgomery County Community Health Assessment 2014. <https://www.phdmc.org/agency-publications/92-community-health-assessment-2014-complete-report/file>.
- <sup>44</sup> BRFSS data. 2015. [http://filecabinet.eschoolview.com/0C8C7FFE-4691-4E09-BF90-82CF01A2D09B/\\_Tobacco\\_themed\\_.pdf](http://filecabinet.eschoolview.com/0C8C7FFE-4691-4E09-BF90-82CF01A2D09B/_Tobacco_themed_.pdf)
- <sup>45</sup> National Survey on Drug Use and Health, 2012-2012, as reported in the Montgomery County Community Health SNAPreport/file.
- <sup>46</sup> <https://www.census.gov/quickfacts/fact/table/daytoncityohio/PST045218>
- <sup>47</sup> Behavioral Risk Factor Surveillance System, 2011-2013, as reported in the Montgomery County Community Health Assessment 2014. <https://www.phdmc.org/agency-publications/92-community-health-assessment-2014-complete-report/file>.
- <sup>48</sup> U.S. Census Bureau. QuickFacts: Dayton, Ohio. Accessed December 7, 2020. <https://www.census.gov/quickfacts/fact/table/daytoncityohio,US/PST045219>
- <sup>49</sup> Frank JL, Kinsella A, Trapl ES, (Nov. 2017). Youth Data Brief: Youth Smoking in Cuyahoga County. Cleveland, OH: Prevention Research Center for Healthy Neighborhoods at Case Western Reserve University.
- <sup>50</sup> BRFSS data. 2015. [http://filecabinet.eschoolview.com/0C8C7FFE-4691-4E09-BF90-82CF01A2D09B/\\_Tobacco\\_themed\\_.pdf](http://filecabinet.eschoolview.com/0C8C7FFE-4691-4E09-BF90-82CF01A2D09B/_Tobacco_themed_.pdf); [http://filecabinet.eschoolview.com/0C8C7FFE-4691-4E09-BF90-82CF01A2D09B/\\_tobacco\\_demo\\_.pdf](http://filecabinet.eschoolview.com/0C8C7FFE-4691-4E09-BF90-82CF01A2D09B/_tobacco_demo_.pdf)
- <sup>51</sup> <https://www.census.gov/quickfacts/fact/table/clevelandcityohio,daytoncityohio/PST045218>
- <sup>52</sup> U.S. Census Bureau. QuickFacts: Columbia City, Missouri. Accessed December 7, 2020. <https://www.census.gov/quickfacts/fact/table/clevelandcityohio,US/PST045219>
- <sup>53</sup> U.S. Census Bureau. QuickFacts: Columbia City, Missouri. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/columbiacitymissouri,US/PST045219>
- <sup>54</sup> <https://www.tobaccofreekids.org/problem/toll-us/missouri>. Accessed October 26, 2020.
- <sup>55</sup> BRFSS 2017, via 500 cities <https://www.cdc.gov/500cities/>, accessed October 26, 2020)
- <sup>56</sup> .S. Census Bureau. QuickFacts: Columbia City, Missouri. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/columbiacitymissouri,US/PST045219>
- <sup>57</sup> .S. Census Bureau. QuickFacts: Columbia City, Missouri. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/columbiacitymissouri,US/PST045219>
- <sup>58</sup> U.S. Census Bureau. QuickFacts: Lee’s Summit, Missouri. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/leessummitcitymissouri,US/PST045219>
- <sup>59</sup> 2017 BRFSS via County Health Rankings. <https://www.countyhealthrankings.org/app/missouri/2020/measure/factors/9/map>. Accessed November 2, 2020.
- <sup>60</sup> Personal communication. Rachel Segobia, Lee’s Summit CARES. October 26, 2020.
- <sup>61</sup> U.S. Census Bureau. QuickFacts: Lee’s Summit, Missouri. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/leessummitcitymissouri,US/PST045219>
- <sup>62</sup> U.S. Census Bureau. QuickFacts: Lee’s Summit, Missouri. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/leessummitcitymissouri,US/PST045219>
- <sup>63</sup> U.S. Census Bureau. QuickFacts: Evanston, IL. Accessed November 2, 2020. <https://www.census.gov/quickfacts/fact/table/evanstoncityillinois,US/PST045219>
- <sup>64</sup> <https://www.tobaccofreekids.org/problem/toll-us/illinois>
- <sup>65</sup> Campaign for Tobacco Free Kids. State Cigarette Excise Tax Rates & Rankings. <https://www.tobaccofreekids.org/assets/factsheets/0097.pdf>
- <sup>66</sup> American Lung Association. State of tobacco Control: Illinois. <https://www.lung.org/research/sotc/state-grades/illinois> Accessed November 2, 2020.
- <sup>67</sup> Ibid.
- <sup>68</sup> <https://www.cityofevanston.org/home/showdocument?id=680>
- <sup>69</sup> Personal communication, Ria Kataria, PEER Services. November 4, 2020.
- <sup>70</sup> Personal communication, Ria Kataria, PEER Services. November 4, 2020.
- <sup>71</sup> Sanders-Jackson A, Parikh NM, Schleicher, NC, Fortmann SP, Henriksen L. Convenience store visits by US adolescents: Rationale for healthier retail environments. *Health & Place*.2015;34: 3-66. doi:10.1016/j.healthplace.2015.03.011

<sup>72</sup> Mills SD, Golden SD, Henriksen L, Kong AY, Queen TL, Ribisl KM. Neighbourhood disparities in the price of the cheapest cigarettes in the USA. *J Epidemiol Community Health*. 2019 Sep;73(9):894-896. doi: 10.1136/jech-2018-210998. Epub 2019 May 23. PMID: 31122944; PMCID: PMC6689253.

<sup>73</sup> Brown-Johnson CG, England LJ, Glantz SA, Ling PM. Tobacco industry marketing to low socio-economic status women in the USA. *Tobacco Control*. 2014;23(0):e139-e146. doi:10.1136/tobaccocontrol-2013-051224.

<sup>74</sup> Cornelius ME, Driezen P, Fong GT, et al. Trends in the use of premium and discount cigarette brands: findings from the ITC US Surveys (2002-2011). *Tobacco Control*. 2013; 23:i48-i53. doi:10.1136/tobaccocontrol-2013-051045

<sup>75</sup> Fontenot, K, Semega J, Kollar M. U.S. Census Bureau, Current Population Reports, P60-263, Income and Poverty in the United States: 2017, U.S. Government Printing Office, Washington, DC, 2018. Retrived from <https://www.census.gov/library/publications/2018/demo/p60-263.html>

<sup>76</sup> <https://www.census.gov/quickfacts/fact/table/daytoncityohio,clevelandcityohio/PST045217>

<sup>77</sup> Lee JGL, Henriksen L, Rose SW, Moreland-Russell S, Ribisl KM. A systematic review of neighborhood disparities in point-of-sale tobacco marketing. *American Journal of Public Health*. 2015;105(9):E8-E18.

<sup>78</sup> Henriksen L, Schleicher NC, Barker DC, Liu Y, Chaloupka FJ. Prices for Tobacco and Nontobacco Products in Pharmacies Versus Other Stores: Results From Retail Marketing Surveillance in California and in the United States. *American Journal of Public Health*. 2016;106 (10): 1858-1864. doi:10.2105/AJPH.2016.303306

<sup>79</sup> <https://www.census.gov/quickfacts/fact/table/US/PST045217>

<sup>80</sup> Lee JGL, Henriksen L, Rose SW, Moreland-Russell S, Ribisl KM. A systematic review of neighborhood disparities in point-of-sale tobacco marketing. *American Journal of Public Health*. 2015;105(9):E8-E18.

<sup>81</sup> U.S. Census Bureau. QuickFacts: Columbia city, Missouri.

<https://www.census.gov/quickfacts/fact/table/columbiacitymissouri/RHI225219>. Accessed October 13, 2020.

<sup>82</sup> McCarthy WJ, Mistry R, Lu Y, Patel M, Zheng H, Dietsch B. Density of tobacco retailers near schools: effects on tobacco use among students. *American Journal of Public Health*. 2009;99(11)2006-13 doi: 10.2105/AJPH.2008.145128.

<sup>83</sup> Henriksen L, Feighery EC, Schleicher NC, Cowling DW, Kline RS, Fortmann SP. Is adolescent smoking related to the density and proximity of tobacco outlets and retail cigarette advertising near schools? *Preventive Medicine*. 2008;47(2):210-4. doi:10.1016/j.ypmed.2008.04.008.

<sup>84</sup> Lee JGL, Henriksen L, Rose SW, Moreland-Russell S, Ribisl KM. A systematic review of neighborhood disparities in point-of-sale tobacco marketing. *American Journal of Public Health*. 2015;105(9):E8-E18.

<sup>85</sup> Kong AY, Queen TL, Golden SD, Ribisl KM. Neighborhood Disparities in the Availability, Advertising, Promotion, and Youth Appeal of Little Cigars and Cigarillos, United States, 2015. *Nicotine & Tobacco Research*. 2020.

ntaa005, <https://doi.org/10.1093/ntr/ntaa005>

<sup>86</sup> National Cancer Institute. The Role of the Media in Promoting and Reducing Tobacco Use. Tobacco Control Monograph No. 19. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. NIH Pub. No. 07-6242, June 2008.

<sup>87</sup> Robertson L, Cameron C, McGee R, Marsh L, Hoek J. Point-of-sale tobacco promotion and youth smoking: a meta-analysis. *Tobacco Control*. 2016;25:e83-e89. doi:10.1136/tobaccocontrol-2015-05286

<sup>88</sup> Public Health Law Center. Keeping Hookah Tobacco in Flavored Sales Restrictions: Why It's Important for Health Equity. (2020). <https://www.publichealthlawcenter.org/sites/default/files/resources/Hookah-Fact-Sheet.pdf>

<sup>89</sup> Corey CG, Ambrose BK, Apelberg BJ, King BA. Flavored Tobacco Product Use Among Middle and High School Students - United States, 2014. *MMWR Morb Mortal Wkly Rep*. 2015;64(38):1066-1070.

<sup>90</sup> Frank JL, Kinsella A, Trapl ES, (Nov. 2017). Youth Data Brief: Youth Smoking in Cuyahoga County. Cleveland, OH: Prevention Research Center for Healthy Neighborhoods at Case Western Reserve University.

<sup>91</sup> Giovenco DP, Spillane TE, Merizier, JM. Neighborhood Differences in Alternative Tobacco Product Availability and Advertising in New York City: Implications for Health Disparities, Nicotine & Tobacco Research, nty244, <https://doi.org/10.1093/ntr/nty244>

<sup>92</sup> Laestadius L, Sebero H, Myers H, Mendez E, Auer P. Identifying Disparities and Policy Needs with the STARS Surveillance Tool. *Tobacco Regulatory Science*. 2018; 4: 12-21(10) <https://doi.org/10.18001/TRS.4.4.2>

<sup>93</sup> Campaign for Tobacco Free Kids. State Cigarette Excise Tax Rates & Rankings. Updated June 29, 2020. Accessed December 7, 2020. <https://www.tobaccofreekids.org/assets/factsheets/0097.pdf>

<sup>94</sup> U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and*

*Young Adults: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for

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

<sup>95</sup> Coombs TB, Brosi DB, Chaitan VL, He E, Luke DA, Henricksen L. Local Retail Tobacco Environment Regulation: Early Adoption in the United States. 2019; S(1):76-86. : <https://doi.org/10.18001/TRS.5.1.7>