RETAIL ADVERTISING FOR TOBACCO PRODUCTS AND SUGARY BEVERAGES IN PHILADELPHIA

AUGUST 2013
UNIVERSITY OF PENNSYLVANIA SCHOOL OF DESIGN
PHILADELPHIA DEPARTMENT OF PUBLIC HEALTH

GET HEALTHY PHILLY
Healthy, Active & Smoke-Free

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I. ACKNOWLEDGEMENTS

This assessment was led by Dr. Amy Hillier at the University of Pennsylvania School of Design. Dr. Mariana Chilton from the Drexel University School of Public Health was a co-investigator. Auguste Dutcher, Anne Misak, Latifah Griffin, Akim Cooper, Keith Gant, Paul Bailey, Tiyanna Johnson, Emily Edwards, Angela Sutton, Sharon McCollum, Katie Oberwager, Rio Holaday, Alex Kaplan, and Bailee Casey all contributed to the assessment.

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II. EXECUTIVE SUMMARY

Unhealthy products—such as tobacco, sugary drinks, and junk foods—are heavily marketed in retail spaces, particularly in urban communities.\(^1\)\(^2\) Combined with ready availability, low prices, and lack of access to healthy alternatives, advertising can increase consumption of unhealthy products and contribute to poor health. For example, outdoor and point-of-sale tobacco advertising has been shown to increase smoking initiation among adolescents, undermine smokers’ quit attempts, and promote relapse among former smokers.\(^3\)\(^4\)\(^5\) Similarly, outdoor advertising for food and beverages has been linked to increased risk of overweight/obesity.\(^6\) Research has also demonstrated that Philadelphia has more advertising for unhealthy products than other comparable cities.\(^7\) To further understand these issues, the University of Pennsylvania School of Design assessed ads for tobacco products and sugary drinks inside and outside 2,800 tobacco retailers in the city. Assessments included structured visual inspections and photographic analyses. Key findings are summarized below.

**Tobacco**
Approximately 75% of retailers had indoor and/or outdoor ads for tobacco products.
- On average, retailers with tobacco advertising had 3.5 outdoor tobacco ads. Gas stations, discount/variety stores, and convenience stores were most likely to have outdoor tobacco advertising.
- Among retailers with outdoor tobacco ads, 82% had ads for mentholated cigarettes.
- On average, retailers had 9 indoor tobacco ads. Chain pharmacies, convenience stores, and gas stations were most likely to have indoor tobacco advertising.
- 29% of retailers with indoor tobacco ads displayed one or more of them in close proximity to products targeted toward children.
- The average advertised price of cigarettes was $5.70 per pack, and 60% of retailers advertised cigarettes for under $5 per pack. Because of higher state cigarette taxes and the presence of local tobacco taxes, the price per pack is $11 in both New York City and Chicago.
- 99% of retailers sold cigarettes, 82% sold cigars, 59% sold tobacco wraps, and 19% sold smokeless tobacco products.
- Tobacco products were immediately visible upon entry in 36% of all retailers and in nearly 50% of convenience stores.
- 12% of retailers did not post required signage regarding prevention of tobacco sales to minors, including over 30% of non-chain pharmacies, takeout restaurants, and check-cashing sites.

**Sugary beverages**
Approximately 67% of retailers had indoor and/or outdoor ads for sugary beverages.
- On average, retailers with sugary beverage advertising had 3.1 outdoor sugary drink ads. Gas stations, corner stores, and convenience stores were most likely to have outdoor sugary beverage advertising.
- Among retailers with outdoor beverage ads, 55% had ads for regular (non-diet) soda; 22% for sweetened teas and energy drinks; and 21% for fruit drinks. Outdoor ads for water, diet soda, and low-fat milk were present in only 6%, 3%, and less than 1% of retailers, respectively.
- Convenience stores, gas stations, and non-chain pharmacies were most likely to have indoor ads for sugary beverages. 70% of the largest indoor beverage ads were for sugary drinks, while only 1% were for water or low-fat milk.
Sugary beverages were immediately visible upon entry in 30% of all retailers and in over 40% of convenience stores, gas stations, and takeout restaurants.

**Junk foods**

- Candy was immediately visible upon entry in 55% of all retailers and in over 60% of corner stores, convenience stores, and newsstands. It was also readily visible in 83% of Asian takeouts.
- Chips were immediately visible upon entry in 54% of all retailers and in over 70% of corner stores and convenience stores.

**Disparities**

- Nearly 75% of all tobacco retailers assessed were in low-income neighborhoods—census tracts in which at least 20% of the population lives below the poverty line.
- There was a strong relationship between neighborhood poverty and tobacco retailer density—the poorer the neighborhood, the more numerous the tobacco retailers (per 10,000 residents).
- The Supplemental Nutrition Assistance Program (SNAP) and the Women, Infants, and Children (WIC) Supplemental Nutrition Program provide low-income families with assistance in purchasing foods. Compared to stores not accepting SNAP or WIC benefits, stores accepting these were significantly more likely to have outdoor and indoor ads for tobacco products and sugary beverages.

**Conclusions and Recommendations**

1. **Retail advertising for tobacco products and sugary beverages in Philadelphia is widespread, outdoors and indoors.** City residents are exposed to ads for tobacco products and sugary drinks when they visit retailers and as they go to and from work or school. Separate studies have shown that Philadelphia children visit corner stores approximately once per day and that 75% of tobacco retailers (like the ones assessed here) are within 2 blocks of a school. These realities are part of a larger community context in which 23% of adults and 10% of youth are smokers, and one-third of adults and one-fifth of youth are obese.

The Philadelphia Department of Public Health (PDPH) will continue to work with governmental and non-governmental partners to promote smoking cessation and consumption of healthy foods and beverages. Mass media campaigns; collaborations with corner stores, supermarkets, and restaurants; and incentives for healthy food purchases through SNAP have proven to be critical tools.

PDPH also supports efforts to modify the advertising environment to promote health. As such, PDPH will work with other City agencies to educate retailers about recently passed City Council legislation that limits retail signage—in a content-neutral fashion—to 20% of window and door space and restricts wall signage based on a retailer’s zoning classification. Retailers should be educated on the law’s provisions and how to be in compliance. PDPH will raise awareness of the law among retailers participating in healthy eating initiatives, such as the 650 stores in the Healthy Corner Store Network, the 200 businesses in the Healthy Chinese Takeout Restaurant Initiative, and grocers participating in a new Healthy Supermarket Initiative. If fully implemented, this law may reduce outdoor retail advertising for tobacco products, sugary drinks, and junk foods. Further analyses of the data presented in this report may allow us to establish a baseline prior to the law’s enactment for purposes of evaluation.
2. Stores that sell tobacco products are particularly prevalent in low-income communities, and retailers accepting public nutrition assistance benefits are more likely to advertise tobacco and sugary drinks. In addition, 60% of retailers sell cigarettes for under $5 per pack.

PDPH will continue to work with local, state, and federal agencies to promote the use of WIC and SNAP benefits for the purchase of healthy foods and beverages. Successful strategies include changes to the WIC food package in 2009 to include produce, whole grains, and low-fat milk; and Philly Food Bucks, which provides $2 of free fruits and vegetables for every $5 of SNAP benefits spent at participating farmers’ markets. PDPH will also explore how advertising environments in WIC and SNAP retailers can be more health-promoting. As reported, only 6% of retailers with outdoor beverage ads featured water or low-fat milk. Incentives for stores and partnerships with manufacturers could increase ads for these healthy products.

With regard to cigarettes, the tobacco industry has a long history of inducing low-income, urban residents to initiate smoking and maintain the habit through targeted advertising and price discounts. Increasing price is arguably the most effective tobacco control measure. For every 10% increase in price, there is about a 6% decrease in youth smoking and 3% decrease in young adult smoking. In this study, the average price per pack in Philadelphia was $5.70. In New York City and Chicago, the price per pack is approximately $11.00. New York City has a local tax of $1.50, and Chicago (including Cook County) has a local tax of $4.68, on top of state and federal taxes. Recently, Philadelphia City Council unanimously passed a $2 per pack tax in Philadelphia to help fund public schools. This tax, in combination with continued tobacco control efforts, would lead to approximately 40,000 fewer adult smokers and 1,000-2,000 fewer youth smokers. While the PA General Assembly has yet to act on legislation authorizing Philadelphia to implement such a tax, it remains a critical strategy for reducing the burden of smoking in the city.

3. Some existing advertising and signage laws are not being fully followed. For example, 12% of tobacco retailers do not post required signage to prevent illegal tobacco sales to minors, with even higher rates of non-compliance among non-chain pharmacies, takeout restaurants, and check-cashing sites. Posting of signs on utility poles and street signs was also noted.

Retailers should abide by requirements of all tobacco control and sign control laws. PDPH will continue to assess for compliance with and enforce youth sales signage laws during routine food safety inspections and while issuing tickets for illegal tobacco sales to minors. Through better education, increased fines, and enhanced enforcement, the rate of illegal tobacco sales to minors in Philadelphia has declined by 38% over the last 3 years. Though not specifically assessed here, misleading advertising for light, low-tar, or mild tobacco products is also prohibited by the 2009 federal Tobacco Control Act and should be monitored.
III. METHODS

Overview of sample

This assessment focused on tobacco retailers within the city of Philadelphia. Tobacco retailers are readily identifiable through state and local licensing, located throughout the city, and include a range of businesses—from corner stores and supermarkets to pharmacies, gas stations, and check-cashing sites.

The initial sample in October 2011 included 4,513 tobacco retailers in the Philadelphia Tobacco Retailer Database (PTRD) maintained by the Philadelphia Department of Public Health (PDPH). The sample was refreshed in February 2012 based on updates to the PTRD, yielding a combined total of 4,639 retailers. PDPH supplied these samples to evaluators at the University of Pennsylvania School of Design.

Between October 2011 and July 2012, evaluation staff visited as many retailers as possible for data collection. Figure 1 shows that visual inspections were conducted at 2,805 retailers (60%) and photographic assessments were done at 2,236 retailers (48%). Both types of assessments were completed at 2,011 retailers (43%). 588 retailers (13%) were not visited because of time and resource constraints. Assessments were not completed at the remaining 1,237 retailers (27%) for the reasons noted in Table 1.

Table 2 demonstrates that corner stores comprised approximately one-third of the assessed retailers, and Asian takeout restaurants comprised about 13%. Since outlet type was not recorded for retailers with photographic analysis only, Table 2 shows the outlet type breakdown only for the 2,011 retailers at which visual inspections were also completed. Analyses of outdoor ad count data (Figures 4 and 5) were based on the full 2,236 photographic analysis sample.

Table 1. Sample summary

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment completed, tobacco products sold at outlet</td>
<td>2,805</td>
<td>60.5%</td>
</tr>
<tr>
<td>Assessment completed, no tobacco products sold at outlet</td>
<td>467</td>
<td>10.1%</td>
</tr>
<tr>
<td>No applicable retailer at listed location</td>
<td>362</td>
<td>7.8%</td>
</tr>
<tr>
<td>Closed on initial visit</td>
<td>74</td>
<td>1.6%</td>
</tr>
<tr>
<td>Closed (on multiple visits or permanently)</td>
<td>233</td>
<td>5.0%</td>
</tr>
<tr>
<td>Duplicate</td>
<td>81</td>
<td>1.7%</td>
</tr>
<tr>
<td>Outlet staff would not allow survey</td>
<td>24</td>
<td>0.5%</td>
</tr>
<tr>
<td>Evaluation staff had safety concern</td>
<td>5</td>
<td>0.1%</td>
</tr>
<tr>
<td>Other (did not visit or need to be re-visited)</td>
<td>588</td>
<td>12.7%</td>
</tr>
<tr>
<td>Licensed tobacco retailers</td>
<td>4,639</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 2. Number of retailers assessed, by outlet type

<table>
<thead>
<tr>
<th>Outlet type</th>
<th>Visual inspections</th>
<th></th>
<th>Photographic analyses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Percent</td>
<td>Count</td>
<td>Percent</td>
</tr>
<tr>
<td>Corner store</td>
<td>1,046</td>
<td>37.3%</td>
<td>761</td>
<td>37.8%</td>
</tr>
<tr>
<td>Chain convenience</td>
<td>96</td>
<td>3.4%</td>
<td>66</td>
<td>3.3%</td>
</tr>
<tr>
<td>Grocery store</td>
<td>238</td>
<td>8.5%</td>
<td>175</td>
<td>8.7%</td>
</tr>
<tr>
<td>Supermarket</td>
<td>69</td>
<td>2.5%</td>
<td>49</td>
<td>2.4%</td>
</tr>
<tr>
<td>Chain pharmacy</td>
<td>127</td>
<td>4.5%</td>
<td>95</td>
<td>4.7%</td>
</tr>
<tr>
<td>Local pharmacy</td>
<td>36</td>
<td>1.3%</td>
<td>29</td>
<td>1.4%</td>
</tr>
<tr>
<td>Gas station</td>
<td>181</td>
<td>6.5%</td>
<td>123</td>
<td>6.1%</td>
</tr>
<tr>
<td>Newsstand/booth</td>
<td>105</td>
<td>3.7%</td>
<td>72</td>
<td>3.6%</td>
</tr>
<tr>
<td>Tavern/bar</td>
<td>32</td>
<td>1.1%</td>
<td>25</td>
<td>1.2%</td>
</tr>
<tr>
<td>Beer retailer</td>
<td>181</td>
<td>6.5%</td>
<td>140</td>
<td>7.0%</td>
</tr>
<tr>
<td>Restaurant/takeout</td>
<td>69</td>
<td>2.5%</td>
<td>54</td>
<td>2.7%</td>
</tr>
<tr>
<td>Asian takeout</td>
<td>378</td>
<td>13.5%</td>
<td>251</td>
<td>12.5%</td>
</tr>
<tr>
<td>Discount/variety</td>
<td>49</td>
<td>1.7%</td>
<td>35</td>
<td>1.7%</td>
</tr>
<tr>
<td>Laundromat</td>
<td>39</td>
<td>1.4%</td>
<td>26</td>
<td>1.3%</td>
</tr>
<tr>
<td>Check-cashing</td>
<td>59</td>
<td>2.1%</td>
<td>43</td>
<td>2.1%</td>
</tr>
<tr>
<td>Smoke shop</td>
<td>29</td>
<td>1.0%</td>
<td>20</td>
<td>1.0%</td>
</tr>
<tr>
<td>Other</td>
<td>71</td>
<td>2.5%</td>
<td>47</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,805</strong></td>
<td><strong>100%</strong></td>
<td><strong>2,011</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Data collection

Visual inspections
Evaluators developed a survey instrument modeled on existing tools and discussions with public health experts. This survey instrument guided visual inspections that were conducted by eleven trained assessors (community members and students) under the guidance of evaluation staff. Reliability checks were conducted by the project manager to verify that each assessor was completing the survey in accordance with the protocol.

Before entering a location, surveyors assessed outdoor advertising. Where they indicated the presence of outdoor ads, they were prompted to choose—from a comprehensive list—all products featured in the ads. For tobacco products, the list included regular cigarettes, menthol cigarettes, cigars (including small cigars/cigarillos), wraps, chewing tobacco, snuff or dipping tobacco (including snus), and other tobacco products. For beverages, the list included regular soda, sweetened fruit drink, sweetened iced tea, sports drink, energy drink with caffeine, other sugar-sweetened drink, 100% fruit juice, diet soda, other diet drink, water, skim or 1% milk, 2% milk, whole milk, milk with unspecified fat content (a catchall category used before the instrument was revised to include the aforementioned specific categories), flavored milk, coffee, alcohol, and other drinks. Beverages were categorized into four groups based on their health profile:

- **Unhealthy** beverages: sugary drinks, including sodas, sweetened fruit drinks (e.g., Sunny D), sweetened teas, sports drinks (e.g., Gatorade), energy drinks, sugared flavored water beverages (e.g., Clear Fruit), and flavored milk
- **Healthier** beverages: 100% juice, diet drinks
- **Healthiest** beverages: water, low-fat milk
- **Other** beverages: alcohol, coffee, regular milk
Upon entering the location, surveyors counted the number of sugary beverage ads about the size of a postcard or smaller posted on its refrigerators and freezers. If there were any indoor beverage ads bigger than a postcard, they recorded the product promoted in the ad, its location and height, and whether it was posted in the vicinity (i.e., above, below, or next to) products targeted to children (e.g., chips, candy, Hugs)—for up to 3 of the largest ads. They repeated the procedure for up to 5 of the largest ads for tobacco products. Finally, they provided a count of the total number of indoor tobacco ads regardless of size. The beverage and tobacco product categories were the same as for the aforementioned outdoor advertising items.

Surveyors assessed tobacco signage outside the store and again at the point of sale, noting the presence of tobacco licenses and any of the following signs: “We Card,” “Buying tobacco for minors...,” “It’s the law” (blue), “1-888-99SMOKE” (orange), and/or other signs.

To identify the products most likely to catch a customer’s eye, surveyors noted whether any of the following products were immediately visible upon entering the retail location: tobacco, sugary beverages, chips, candy, fresh fruit, and/or fresh vegetables. Fruit and vegetables were subsequently combined into a broader produce category.

Data were inputted into HP iPAQ personal digital assistants programmed using Pendragon 5.1 software. See Table 3 for details of data that were collected.

**Photographic analyses**
Assessors took photographs of the storefront, plus as many additional photos as needed to capture all the outdoor advertisements. If, for example, the store had a main storefront plus a side wall, the side wall did not need to be captured if there weren't any advertisements on it. If there was a pole, fence, or other side structure clearly associated with the store that had ads on it, it needed to be included in the photograph(s). Evaluators then assessed photographs for the number and location of tobacco ads and sugary beverage ads. Only ads larger than roughly 8.5 inches x 11 inches were included. Location of ads was categorized as: 1) on the building (walls and windows), 2) on doors, 3) on adjacent structures (railings, fences), and 4) on poles and street signs, including both private and City property. See Table 3 for details of data that were collected.

**Table 3. Data collected through visual inspections and photographic analyses**

<table>
<thead>
<tr>
<th>Outdoor</th>
<th>Indoor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advertising</strong></td>
<td></td>
</tr>
<tr>
<td>Beverages</td>
<td>Presence of any beverage ads</td>
</tr>
<tr>
<td></td>
<td>Types of beverages advertised</td>
</tr>
<tr>
<td></td>
<td>Number and location of sugary beverage ads (photos)</td>
</tr>
<tr>
<td>Tobacco products</td>
<td>Presence of any tobacco ads</td>
</tr>
<tr>
<td></td>
<td>Types of tobacco products advertised</td>
</tr>
<tr>
<td></td>
<td>Number and location of tobacco ads (photos)</td>
</tr>
<tr>
<td>Other</td>
<td>Presence of youth tobacco signage</td>
</tr>
<tr>
<td></td>
<td>Presence of WIC/SNAP signage</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional data

Neighborhood poverty
Philadelphia is the poorest of the 10 largest U.S. cities. For analyses of the relationship between neighborhood poverty and advertising for unhealthy products, neighborhood poverty level was determined on the basis of census tract data from the 2005-2009 American Communities Survey (5-year estimates). The exact measure used was the ratio of income to poverty level in the past 12 months (C17002), so the percentage of a tract's residents who lived in poverty was the sum of residents with ratios under 0.5 and residents with ratios between 0.5 and 0.99. Out of 384 tracts in Philadelphia County, only the 326 with medium- or high-reliability poverty estimates were included in the analyses.

Retailer density
Since evaluation staff visited just a subset of tobacco retailers in Philadelphia, analyses of the relationship between neighborhood poverty and tobacco retailer density utilized data from the Philadelphia Tobacco Retailer Database (PTRD). In May 2013, a total 4,374 tobacco retailers were active in the PTRD. Analyses were based on the 4,143 of these that were located in the 326 census tracts with medium- or high-reliability poverty estimates. Density per 10,000 residents was computed on the basis of population data from the decennial 2010 U.S. Census.

WIC/SNAP
To assess advertising exposure among the poorest Philadelphians, the WIC/SNAP-participating stores were compared to stores not participating in WIC or SNAP. A list of WIC stores was obtained from the Bureau of Women, Infants & Children at the Pennsylvania Department of Health, and a list of stores participating in SNAP was obtained from the United States Department of Agriculture. The store lists were then matched against the list of assessed retailers. Eleven stores appeared only on the WIC list; the remaining 432 WIC stores (97.5%) appeared on the SNAP list as well. There were 898 SNAP-only stores. Analyses of the relationship between WIC/SNAP participation and advertising for unhealthy products included only the outlet types most likely to accept food stamps—corner stores, chain convenience stores, grocery stores, and supermarkets.
IV. OUTDOOR ADVERTISING

IV. A. Retailers with outdoor ads for tobacco products, beverages, and sugary beverages

Figure 2. Percentage of retailers with outdoor advertising for tobacco products, beverages, and sugary beverages, by outlet type (N=2,805)

Tobacco

- Citywide, 55% of retailers had outdoor advertising for tobacco products.
- Gas stations, tobacco shops, discount/variety stores, and convenience stores most commonly had outdoor tobacco advertising.

Sugary beverages

- Citywide, 54% of retailers had outdoor advertising for beverages, and 44% had outdoor advertising for sugary drinks.
- Gas stations, corner stores, and convenience stores most commonly had outdoor sugary drink advertising.
- Not surprisingly, outdoor ads for beverages were almost ubiquitous at beer retailers.
IV. B. Products advertised in outdoor ads

- Regular and menthol cigarettes were by far the most commonly advertised tobacco product outdoors, each of which was featured at more than 80% of retailers with outdoor tobacco ads.

- Over 95% of retailers with any tobacco ads had at least one ad for either regular or menthol cigarettes, and more than 70% had ads for both (not shown).
By far, the most commonly advertised beverage outdoors was regular soda (55% of retailers).

At over 20% of retailers, outdoor advertising was present for sweetened fruit drinks, sweet teas, energy drinks, and 100% fruit juice.

Water—the healthiest option—was advertised outdoors at only 6% of retailers with beverage ads.
IV. C. Placement

There was a considerable difference in the placement of outdoor ads for tobacco products and for sugary beverages.

- Nearly two-thirds of tobacco ads were posted on buildings (i.e., walls and windows), with less than a third posted on doors.
- On the other hand, half of all outdoor beverage ads were posted on doors, with another third posted on buildings.
IV. D. Average number of outdoor ads

Across the city, there were more outdoor ads for tobacco products than for sugary beverages. For every 1 sugary drink ad, there were about 1.5 tobacco ads (not shown).

Retailers with outdoor tobacco ads had an average of about 3.5 ads for tobacco, and retailers with outdoor sugary beverage ads had an average of 3.1 ads for sugary beverages.

Tobacco shops and convenience stores had the largest number of outdoor tobacco ads (not shown).

Corner stores and grocery stores had the largest number of outdoor sugary drink ads (not shown).
V. INDOOR ADVERTISING

V. A. Retailers with indoor ads for tobacco products, beverages, and sugary beverages

Figure 6. Percentage of retailers with indoor advertising for tobacco products, beverages, and sugary beverages, by outlet type (N=2,805)

Tobacco

- Citywide, 69% of retailers had indoor ads for tobacco products.
- Chain pharmacies, gas stations, and convenience stores most commonly had indoor tobacco ads.

Sugary beverages

- Citywide, 64% of retailers had indoor ads for beverages, and 57% had indoor ads for sugary beverages.
- Convenience stores, gas stations, and non-chain pharmacies most commonly had indoor sugary drink advertising.
V. B.  Products advertised in largest indoor ads

Figure 7a. Products advertised in 5 largest indoor tobacco ads (N=7,898)

- Of the 5 largest indoor tobacco ads, more than half were for regular cigarettes and over one-third were for menthol cigarettes.
- Of the very small percentage of ads for smokeless tobacco products, most were for snuff or dipping tobacco.
- Among retailers with any indoor tobacco ads, the average number of ads was 9 (not shown).
Of the 3 largest indoor beverage ads, 70% were for sugary drinks, 9% for healthier beverages (such as 100% juice and diet soda), and only 1% for water and low-fat milk.

Of sugary drink ads, 55% were for soda and 19% were for sweet teas.

The remaining 19% of indoor ads were for other beverages, primarily alcohol.
V. C.  Proximity to children's products

Figure 8. Advertising in proximity to children's products, by product group

- 29% of retailers with large indoor tobacco ads posted at least one of these ads in close proximity to products targeted to children, which included primarily other unhealthy products, such as chips and candy.
- 13% of retailers with large indoor sugary beverage ads posted at least one of them in close proximity to children's products
- Only 1% of indoor ads for sugary beverages and tobacco products were posted in the line of vision of small children (3 feet or below) (not shown).
VI. TOBACCO PRICE AND SIGNAGE

VI. A. Cigarette prices

Cigarette prices are strongly predictive of smoking among youth and low-income populations of all ages—as prices go up, smoking rates come down. Unfortunately, cigarettes cost less in Philadelphia than in many other large cities. For example, because of higher state cigarette taxes and the presence of local tobacco taxes, the price per pack is $11.00 in both New York City and Chicago.

**Figure 9. Highest (N=1,624) and lowest (N=1,601) prices per pack of cigarettes, by outlet type**

- The lowest advertised price for a pack of cigarettes ranged from $4.01 to $8.00, with an average of $5.04. The highest advertised price ranged from $4.49 to $11.18, with an average of $6.36.
- $5.70 represents both (1) the mean of the average low and average high prices for the total sample and (2) the average of all low and high prices observed at all locations with posted prices.
- Approximately 60% of retailers with advertised prices sold packs for $5 or less (not shown).
VI. B. Retailers with indoor and outdoor youth tobacco sales prevention signage

In Philadelphia, businesses that sell tobacco products are required to post signage informing customers of youth sales laws, which prohibit the sale of tobacco products to minors and require anyone under 27 to present photo ID when purchasing tobacco. Surveyors assessed tobacco signage outside the store and again at the point of sale, noting the presence of tobacco licenses and any of the following signs: “We Card,” “Buying tobacco for minors…,” “It’s the law” (blue), “1-888-99SMOKE” (orange), and/or other signs.

- 12% of tobacco retailers were not complying with laws requiring postage of youth tobacco sales prevention signage.
- Nearly 60% of bars and taverns had neither indoor nor outdoor signage.
- Over 30% of non-chain pharmacies, takeout restaurants, and check-cashing sites also did not post youth tobacco sales prevention signage.

Figure 10. Indoor and outdoor youth tobacco sales prevention signage, by outlet type (N=2,805)

- 12.3% Both
- 39.7% Outdoor only
- 44.5% Indoor only
- 3.5% No signs

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VII. **PRODUCT AVAILABILITY AND VISIBILITY**

VII. A. Tobacco products sold

- 99% of retailers sold cigarettes, 82% sold cigars, 59% sold tobacco wraps, and 19% sold smokeless tobacco products.

- Convenience stores, chain pharmacies, and gas stations had the widest selection of tobacco products, each selling an average of more than 3 of these 4 product types (not shown).

![Figure 12. Types of tobacco products sold, by outlet type (N=2,805)](image)
VII. B. Products immediately visible upon entry

- Citywide, candy was the most commonly visible unhealthy product upon entry (55% of stores), followed by chips (54%), tobacco products (36%), and sugary beverages (30%).

- Unhealthy foods are often found in shelving at or near entrances, while tobacco products are displayed behind the counter and sugary beverages are kept in refrigerated cases along walls.

- Generally, corner stores and convenience stores were most likely to have candy and chips visible upon entry. Candy was also readily visible in over 80% of takeout Asian restaurants.

- Sugary beverages were most often visible in gas stations, convenience stores, and restaurants/takeouts.

- Tobacco products were most often visible in smoke shops, convenience stores, and gas stations.

- Readily visible displays of fresh produce were far less common, with fruit and/or vegetables visible upon entry in only 6% of retailers (not shown). Even among the subset of food retailers, only 14% had produce readily visible.
VII. C. Unhealthy products immediately visible upon entry

- At least one category of unhealthy product was visible immediately upon entry in 77% of retailers.

- All four categories of unhealthy products were immediately visible in approximately 20% of corner stores and 25% of convenience stores and gas stations.

- For some types of retailers, the number of unhealthy products immediately visible upon entry was likely limited by the number of unhealthy products for sale at all. Taverns and bars, for example, rarely stock soda or junk food.

Figure 13b. Number of unhealthy products immediately visible upon entry, by outlet type (N=2,805)
VIII. DISPARITIES

Neighborhood poverty level was determined on the basis of census tract data from the 2005-2009 American Communities Survey.

VIII. A. Outlet types

Figure 14. Percentage of retailers by neighborhood poverty, by outlet type (N=2,779)

- Different outlet types were not distributed evenly across poor and non-poor neighborhoods.
- More than 80% of corner stores were located in poor neighborhoods (in which at least 20% of households fell below the federal poverty line), while only 50% of supermarkets were in these poor neighborhoods.
- Poor neighborhoods had the vast majority of discount/variety stores, laundromats, Asian takeouts, and beer retailers.
- Supermarkets, pharmacies, and gas stations were split evenly between poor and non-poor areas, while chain convenience stores and taverns/bars were located predominantly in more affluent neighborhoods.
- Overall, nearly 75% of all tobacco retailers assessed here were located in poor neighborhoods.
VIII. B. Retailer density

Figure 15 presents the results of analyses of the relationship between neighborhood poverty and the density of tobacco retailers. Analyses were based on all retailers known to sell tobacco in Philadelphia—not just the retailers assessed as part of the evaluation. Only the 326 tracts with medium- or high-reliability poverty estimates were included in the analyses.

- There is a strong positive relationship between neighborhood poverty and retailer density ($p<.001$)—the poorer the neighborhood, the higher the retailer density.
- Thus, though there is no consistent relationship between neighborhood poverty and the likelihood of retailers posting indoor or outdoor advertising (not shown), residents of poor neighborhoods are exposed to more tobacco retailers—and thus more tobacco and sugary beverage advertising—than their counterparts in more affluent parts of the city.
VIII. C. WIC/SNAP stores

The following analyses of the differences between WIC/SNAP and non-WIC/SNAP stores apply to corner and grocery stores, chain convenience stores, and supermarkets only—the outlet types most likely to accept food stamps.

**Figure 16. Indoor and outdoor advertising for tobacco products and sugary beverages, by WIC/SNAP status (N=1,449)**

- There were significant differences in the prevalence of outdoor and indoor beverage and tobacco ads between WIC/SNAP and non-WIC/SNAP stores. All advertising was more common at SNAP stores and most common at stores that also accepted WIC (all p<.05). This trend was fairly consistent regardless of neighborhood poverty (not shown).

- While the average number of outdoor tobacco ads was the same for WIC/SNAP and non-WIC/SNAP stores (3.4), WIC/SNAP stores had a significantly higher number of outdoor ads for sugary drinks (3.4 vs. 2.8) (p<.05; not shown).
Sugary drink advertising was nearly ubiquitous at retailers with outdoor ads, regardless of WIC/SNAP status, and there were no significant differences in the prevalence of ads for the healthiest beverages (water and low-fat milk) or other beverages.

Among retailers with outdoor ads, stores that accepted WIC and SNAP were significantly more likely to advertise healthier beverages like 100% juice or diet sodas ($p<.001$).

There were no significant differences in the types of beverages advertised in the largest indoor ads. Regardless of WIC/SNAP status, approximately 80% of the largest indoor ads were for sugary drinks, with only one in 10 for healthier alternatives and just 1% for water or low-fat milk (not shown).

Compared to non-WIC/SNAP stores, sugary drinks were immediately visible less often at SNAP-only stores and least often at stores that accepted WIC and SNAP ($p<.01$). There were no other differences in product visibility (not shown).
IX. References


22 Adapted from Stehr M. The effect of tobacco control policies and a city wide $2 per pack cigarette tax on smoking, health care costs, and productivity in Philadelphia. LeBow College of Business, Drexel University, March 2012.

23 [http://www.fda.gov/tobaccoproducts/guidancecomplianceregulatoryinformation/ucm246129.htm](http://www.fda.gov/tobaccoproducts/guidancecomplianceregulatoryinformation/ucm246129.htm)