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Survey of Retail-Setting Corrective Statements in Fulton County, Georgia

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by

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Introduction

History of Tobacco Industry Corrective Statements

The tobacco industry has asserted for many years in public messaging and in litigation that smoking is a personal choice (USDHHS 2020). In addition, the tobacco industry has spread misconceptions that smoking is simply a bad habit, that quitting is a matter of willpower, and that addiction to nicotine is akin to being addicted to caffeine (USDHHS 2020). The reality is that nicotine is addictive and that smoking is not merely a habit (USDHHS 2002). To address in part these deceptive practices by the tobacco industry the U.S. Department of Justice (DOJ) in 1999 brought the Racketeer Influenced and Corrupt Organizations (RICO) case against the tobacco industry.

Following the 2004-2005 racketeering trial of the tobacco industry, the court found in 2016 that cigarette companies had defrauded consumers about the health dangers associated with cigarette smoking. Furthermore, the federal court found Altria, Philip Morris USA, RJ Reynolds, and other tobacco companies in violation of the Racketeer Influenced and Corrupt Organizations (RICO) Act, citing 145 distinct acts of racketeering (Matheny et al. 2019). Federal Judge Gladys Kessler also ruled that the tobacco industry had to disseminate “corrective statements" to inform consumers about the industry’s past deceptive practices (US District Court for DC 2006a). These corrective statements are part of a broader order aimed at preventing the cigarette companies from continuing to engage in fraud and deception.

The court ordered the tobacco companies to disseminate corrective statements addressing their past deception through newspapers, television, package onserts, point-of-sale (POS) placements, and corporate websites regarding: (1) health effects of smoking, (2) addictiveness of nicotine, (3) low-tar cigarettes, (4) nicotine enhancement, and (5) health effects of secondhand smoke (Matheny et al. 2019). However, legal appeals delayed the release and publication of the corrective statements for over a decade. Eventually, the court considered wording proposals from the DOJ, cigarette manufacturers, and a consortium of health groups including Campaign for Tobacco-Free Kids, American Cancer Society, American Lung Association, Americans for Nonsmokers’ Rights, and the National African American Tobacco Prevention Network (US District Court, 2006b). The corrective statement wording was finalized in November 2012. Publication in newspapers and on television began in November 2017. Publication on corporate websites began in June 2018 and package onserts in November 2018.

On December 6, 2022, the final court order was issued around the point-of-sale corrective statements; this order resolved the government’s long-running civil racketeering lawsuit against the largest U.S. cigarette companies (DOJ 2019). After a multi-year appeals process, the final order on December 6, 2022 imposed the last of several corrective remedies ordered by the court. Under the order, defendants are now required to display signs in retail stores featuring corrective

statements about the health effects and addictiveness of smoking. The order applies to defendants Altria, Philip Morris (PM) USA Inc. and R.J. Reynolds Tobacco (RJRT) Company as well as four cigarette brands owned by ITG Brands LLC. Like other parts of the court order, the point-of-sale statements were the subject of several appeals and were to be the subject of a July 2022 hearing about their effects on retailers (DOJ 2019). However, in May 2022, the parties, along with representatives of several groups of retailers that sell cigarettes, negotiated an agreement that corrective statements would be displayed in retail stores for two years (DOJ 2019). The hard-fought negotiations were led by the U.S. Department of Justice and also involved various public health organizations who intervened as plaintiffs in the case (DOJ 2019).

There are approximately 300,000 retail locations in the United States that sell cigarettes (DOJ 2019). About 200,000 of those retailers have retail merchandising agreements with PM USA, RJRT, and ITG that allow the companies to control how their cigarettes are displayed at those retailers' stores (DOJ 2019). The 2022 order entered by the court requires these companies to amend their agreements with retailers to require the placement of corrective statements in retail stores. The corrective statements, which are displayed on color signs as specified in the court order (United States vs. Philip Morris Inc., 2009), are designed to be eye-catching and provide truthful information to consumers relating to: the adverse health effects of smoking; the addictiveness of smoking and nicotine; the lack of health benefits from cigarettes advertised a light or low tar; cigarette companies' manipulation of cigarette design and composition to ensure optimum nicotine delivery; and the adverse health effects of exposure to secondhand smoke. There are 17 mandated corrective statements (see Table 1 for the text of each of the 17 corrective statements). All corrective statements must have an asterisk on the left side and a preamble in an aqua blue box that is 25% of the sign. There are two versions of the preamble (Table 1). The corrective statement signs come in two sizes - 348 and 144 square inches (both in a rectangular and square form). The typography and color palette are also further specified in the court order (United States vs. Philip Morris Inc., 2009). An example of one of the 17 corrective statements as displayed on a retail store's exterior is given in Figure 1 in the Appendix.

The point-of-sale order went into effect on July 1, 2023 and gave the defendants three months to post the required corrective statements (United States vs. Philip Morris Inc.). Retailers will display the signs for 21 months thereafter. The corrective signs are in both English and Spanish, with the latter required in geographic areas with significant Spanish-speaking populations. Independent auditors will periodically evaluate compliance with the order, and a tip line was established so that the public may report incidents where they believe the statements are not being displayed properly or at all. Any retailer location identified through the tip line will be added to the pool of stores to be audited. If a store identified from the tip line is not audited due to the maximum number of audits reached then a warning letter from the auditor is sent to the store reminding the store of their obligation to adhere to their contract for displaying the corrective statements.

Audited stores that are found to be in non-compliance receive a noncompliance notice and the same notice is sent to the court-order-created working group which consists of 10 members (three from the Department of Justice, two from the public health organizations that brought the suit, and one from each of the three tobacco companies) (United States vs. Philip Morris Inc., 2009). If the noncompliance notice is appealed by a working group member or the store, the working group votes on the appeal to determine if noncompliance occurred. For the first major noncompliance issue (failure to post a required sign or an obstruction of a sign where it is not visible) the retailer will receive counseling to correct the issue and be required to post an additional sign for the remainder of the implementation period. For the second major noncompliance issue they will be counseled and owe each tobacco industry manufacturer a payment equal to the price promotions paid to the store by the industry for four weeks for the covered cigarette brands. For the third major noncompliance issue the retailer will be counseled and owe the industry for the 13 weeks of price promotions. For a fourth violation they will be counseled and suspended for 17 weeks from the retailer contracts with each tobacco manufacturer. For the first three minor noncompliance violations (any issue with the signs that is not a major issue) the retailer will be counseled to correct the issue and on the third violation they will be required to post an additional sign for 120 days. In addition, if the auditor finds a noncompliance rate of greater than 15% for the total store audit in any of the three audit periods the tobacco manufactures will pay the U.S. Treasury 3.5 million dollars. If the compliance rate is not improved then the tobacco manufacturers will pay the U.S. Treasury 7.5 million dollars.

Display of Tobacco Industry Corrective Statements in Retail Settings

This 2022 court order defined how the POS corrective statements by the tobacco industry should be implemented including specifications of how they should be displayed (U.S. vs. Philip Morris Inc.). The signs consist of two parts: (1) the point-of-sale preamble (Table 1) followed by (2) one of 17 corrective statements (Table 1). The guidance for placement of the signs varies by whether the store is defined as a kiosk store or a non-kiosk store. A kiosk store is a store that does not allow customers to enter and has a selling window in front of a counter between the customer and store personnel. In addition, a kiosk store is no larger than 325 square feet (not including restrooms). These kiosk stores are only required to display one corrective statement sign near the selling window that will be highly visible to the customer and can be seen as they approach or are standing at the selling window. If the kiosk store does not have a selling window then the sign should be by the cash register/point of sale or other designated area.

For non-kiosk stores, there is a preferred hierarchy of how the sign should be displayed as specified in the court order (United States vs. Philip Morris Inc., 2009). The sign placement is focused on what is called the cigarette merchandising set. The cigarette merchandising set is defined as any rack, shelving, display, or fixture at a store including any canopy or header used in whole or in part to merchandise one or more of the covered brands of cigarettes in the order

that are visible to the customer. Preferably a single corrective statement sign should be attached to and above (or hung above) the main cigarette merchandising set with a space of ≤ 6 inches between the top of the main merchandising set and the bottom edge of the sign and in the same plane as the front of the merchandising set. If that placement is not possible then the sign should be attached and adjacent or hung adjacent to the main cigarette merchandising set with a space of ≤ 6 inches between the side of the main merchandising set and the side edge of the sign. In addition, the sign should be in the same plane as the front of the merchandising set. If it is not possible to display the sign in the same plane then the sign should be affixed vertically but offset from the front plane of the merchandising set and ≥ 48 inches above the floor. If the first two options are not possible then the sign should be displayed either ≤ 48 inches from the main customer entrance so it can be seen entering the store or ≤ 48 inches of the cash register so it can be seen when standing at or approaching the cash register. For both of these locations the sign should be displayed ≥ 48 inches above the floor. If none of these four locations are possible then the sign should be displayed perpendicular to the main cigarette merchandising set or on a wall in front of a recessed main cigarette merchandising set but in a plane parallel to the front of the set. For both of these locations the sign should also be displayed ≥ 48 inches above the floor.

In non-kiosk stores with > 9 feet of visible merchandising set space comprising the covered brands there needs to be a second sign posted and its placement needs to follow the same hierarchy as described above. In addition to the above set-adjacent signs stores with off-merchandising set promotional signage (i.e., signage that is not placed within the four corners of the merchandising set) are also required to display a single off-set corrective statement sign in a highly visible location ≤ 48 inches of the main customer entrance of the store that can be seen be customers as they enter the store that is also ≥ 48 inches above the floor (United States vs. Philip Morris Inc., 2009). So, stores that have both > 9 feet of visible merchandising set space and an off-merchandising set promotion are required to have three signs.

The ruling does not specify whether the sign associated with the store having an off-merchandising set promotion should be placed on the exterior of the store or in the interior of the store, just that it be located in a highly visible location ≤ 48 inches of the main customer entrance of the store that can be seen by customers as they enter the store. It is likely that these signs may be placed on the exterior of the store (on the entrance door or on a window near the entrance door) as the signs need to be affixed to something and it is unlikely that they would be affixed to merchandizing sets for other products (i.e., snacks) which are typically location inside the store near the entrance.

The 17 corrective statements should be distributed so that all statements are being used equally. In addition, statements should be equally distributed across geographic regions, store chains, and type of participating retailer location (i.e., a store with which the manufacturer has a contract). The manufacturers will pay an auditor to monitor compliance with court order specifications.

There is also a tip line for the general public to report suspected noncompliance with the court order.

Exposure and Reactions to Corrective Statements

Existing literature on corrective statements has highlighted the potential reach of corrective statements and their effects on consumers. Corrective statements were first implemented in newspapers and on television in 2017-2018. Nationally representative data from the 2018 Health Information National Trends Survey (HINTS) indicated that 40.6% of US adults reported seeing the corrective statements in newspapers or TV in the past 6 months (Blake et al. 2020). Reported exposure to the corrective statements varied by topic (i.e., health effects of smoking, health effects of secondhand smoke, addictiveness of smoking and nicotine, how cigarettes were designed to enhance the delivery of nicotine, and low tar and light cigarettes being as harmful as regular cigarettes) ranging from 11.4% (manipulation of cigarette design) to 34.7% (health effects of smoking) (Blake et al. 2020). Those with a high school education were significantly less likely than those with a college degree to report seeing the statements and current smokers were significantly more likely than never smokers to report seeing them. Another study that also used the 2018 HINTS data found lower self-reported exposure to the corrective statements among persons aged 18-34 years than other age groups (Chido-Amajuoyi et al. 2019). Chido-Amajuoyi et al. (2019) also observed that among persons who were current cigarette smokers, the portion of those who reported seeing the corrective statements was lower among Hispanic adults than non-Hispanic adults. They also found that as the duration of the placement of the corrective signs in newspapers and TV increased (from November 2017 through May 2018) the self-reported rates of exposure to the corrective statements increased (Chido-Amajuoyi et al. 2019). Timberlake and colleagues (2020) also found that broadcast corrective statement advertisements were able to reach a significant number of smokers; however, they also found that the smokers were not exposed to the statements as consistently as dictated by Centers for Disease Control and Prevention best practices.

Little research is available on the relation between exposure to the corrective statements and knowledge, attitudes, and beliefs about cigarette smoking and the tobacco industry. However, the tobacco industry has long used marketing to make cigarette smoking and tobacco use seem to be normal and to enhance the perception that tobacco is used by large numbers of people (USDHHS 2020). Public health organizations have used counter-marketing strategies to counteract this tobacco industry marketing and denormalize tobacco use (USDHHS 2020). The corrective statements in retail settings have the potential to act as a counter-marketing strategy.

One study measured adult smokers' responses to the corrective statements before their initial release in a 2013 consumer panel of 1,404 adult smokers (Kollath-Cattano et al. 2014). The adult smokers in the panel viewed the corrective statements and reported on the corrective statement's novelty and relevance and whether they felt anger at the tobacco industry and motivation to quit

when viewing the statements. African Americans and Hispanic persons who smoked cigarettes were more likely than non-Hispanic whites to report that the corrective statements were novel; in addition, these groups also had a stronger response to the corrective statements across all the measured indicators than white persons. Women rated the corrective statements as more relevant and reported higher motivation to quit after seeing the corrective statement compared to men. Persons who smoked who lived with minors were more likely to report that the corrective statements were novel, made them feel angry at the tobacco industry, and reported higher motivation to quit after seeing the corrective statement compared to those who did not live with a minor. Persons who intended to quit in the next six months were more likely to report the corrective statements as novel and reported significantly greater personal relevance, anger, and motivation to quit in response to the corrective statements than those who did not intend to quit in the next six months. Those who reported that the corrective statement was novel also reported higher levels of statement relevance, anger at the industry, and quit motivation than those who did not think the corrective statement was novel (Kollath-Cattano et al. 2014).

Across all three racial/ethnic groups, corrective statements on the health effects of smoking were judged as more relevant than the statements on cigarette addictiveness or on low tar/light cigarettes (Kollath-Cattano et al. 2014). In addition, statements on the health effects of smoking were associated with higher quit motivation than those about cigarette addictiveness or about low-tar/light cigarettes. Statements on health effects of secondhand smoke were also judged as more relevant and were associated with higher levels of quit motivation than statements on low tar/light cigarettes (Kollath-Cattano et al. 2014).

Another study examined the effects of the corrective statements on intentions to quit and to purchase cigarettes among 803 adults who were current smokers and participated in an online consumer panel in 2018 (Lee S et al. 2020). Participants were randomly assigned to view the court ordered corrective statements on the health effects of smoking and secondhand smoke health effects or modified versions of the corrective statements (one which added an industry deception statement and one that added the industry deception statement and testimonials of people harmed by smoking). They observed that intentions to quit smoking increased significantly after viewing the current corrective statements when compared to baseline intentions to quit smoking. Exposure to the current corrective statements also increased participants' willingness to "try to quit smoking", "reduce the number of cigarettes smoked per day" and "quit smoking completely". Those who viewed the corrective statements with the testimonials had a greater increase in intentions to quit and to reduce the number of cigarettes smoked per day than those who viewed the current corrective statements (Lee S et al. 2020).

Finally, Matheny et al. (2019) examined whether the corrective statements might influence adults' perceptions of the tobacco industry and support for tobacco control policies. This 2017 study randomized 2010 adults to a group "exposed" to the corrective statements (i.e., those who reported their attitudes after reading the corrective statements) or to an "unexposed" group (i.e.,

they reported their attitudes before reading the corrective statements) (Matheny et al. 2019). They observed that the exposed group was less likely than the unexposed group to think "lawmakers should trust tobacco companies as much as they trust other companies" or that "lawmakers should trust tobacco company lobbyists to provide accurate information on tobacco issues" (Matheny et al. 2019). The exposed group was also more likely than the unexposed group to favor the policy to "require large graphic warning labels on cigarette packs to better convey health risks of smoking" and the policy to "require stores that sell tobacco products to post a tobacco quitline sign" (Matheny et al. 2019). The authors concluded that exposure to the corrective statements and court findings may aid in the denormalization of the tobacco industry and the implementation of tobacco policy initiatives (Matheny et al. 2019).

In summary little research has been done to assess the reach of past corrective statements as distributed through various media as well as their relationship to persons with knowledge, attitudes and beliefs of persons who currently smoke cigarettes. Differences in exposure to past corrective statements occurred by age, education and ethnicity with younger, those with less education and those of Hispanic ethnicity less likely to be exposed to the statements in print and television ads (Blake et al. 2020 Chido-Amajuoyi et al. 2019). Demographic differences were also reactions to the corrective statements with American American persons and Hispanic persons more likely than whites to find the statements novel, relevant and to have great anger toward the tobacco industry when viewing the statements (Kollath-Cattano et al. 2014). Also, women were more likely than men to think the corrective statements were relevant and motivated them to quit. In addition, statements on the health effects of smoking and secondhand smoke were found to be more relevant than statements on other issues and they were associated in one study with intentions to quit (Lee S et al. 2020). To date no study has been published that examined the tobacco industry corrective statements in retail settings. This study seeks to fill the gap in literature.

Study Goals

The goal of this study is to examine whether the corrective statements by the US tobacco companies placed in retail stores in Fulton County Georgia that sell cigarettes are (1) placed correctly; and (2) are randomly distributed across the 17 corrective statements. It is currently unknown whether the signs are correctly placed (i.e., is a sign present in the store, is it clearly visible to the customer, etc.) and whether the 17 statements are randomly distributed or if certain messages are more prevalent than other messages. In addition, it is unknown whether certain messages are randomly distributed across geographic areas (i.e., that certain messages appear more frequently in particular neighborhoods). Although the tobacco industry is funding an audit of the signs, the quality of the audit is unclear and should be confirmed by independent groups given that the tobacco industry has a financial interest in the results.

To address the tobacco industry's past deception, the corrective statement must be present in the stores and must be clearly visible to the clients. Therefore, this study will assess whether the court order around sign placement is being adhered to.

This study will also assess the distribution of the 17 corrective statement messages in Fulton County Georgia. While there is limited information on the effects of the corrective statements on the attitudes, beliefs and behaviors among individuals who smoke cigarettes, one study found that corrective statements on the **health effects of smoking** were more relevant and were associated with higher quit motivation than statements on **cigarette addictiveness** or on **low-tar/light cigarettes** (Kollath-Cattano et al. 2014). This study also found that statements on the **health effects of secondhand smoke** were also more relevant and enhanced quit motivation compared to those on **low-tar/light cigarettes** (Kollath-Cattano et al. 2014). In addition, another study conducted at the time when the corrective statements were placed in newspapers found that 34.7% of adults reported seeing a statement on the **health effects of smoking** compared to 11.4% that reported seeing a sign on the **manipulation of cigarettes' design** by the tobacco industry (Blake et al. 2020). This may indicate that people may have higher recall of the messages around the health effects of smoking than the messages about tobacco industry manipulation of the cigarettes design. Therefore, it is important that this study assess the random distribution of the 17 messages to ensure that the messages are not unevenly distributed with potentially more messages in the potentially less novel/relevant categories of low-tar/light cigarettes or cigarette addictiveness and fewer messages on the health effects of smoking and secondhand smoke.

In addition, Kollath-Cattano et al. (2014) observed that African Americans and Latinos had more positive reactions to the corrective statements (in terms of statement relevance, anger toward the tobacco industry and motivation to quit) than white participants (Kollath-Cattano et al. 2014). Therefore, it is also important for this study to assess whether the signs are randomly distributed across geographic areas in Fulton County Georgia and that the potentially lesser impact statements (i.e., low-tar/light cigarettes) are not predominantly found in areas with high percentages of African American and Latino residents. Finally, it is also important to examine whether the statements are randomly distributed across geographic areas with varying levels of income since some studies have observed stronger anti-industry attitudes among people who smoke who have high levels of SES (Hammond et al. 2006).

Methodology

Retail Store Selection

To assess the state of compliance with the court-ordered corrective statements by the tobacco industry in Fulton County Georgia, 100 retail sites with corrective statements were chosen at random. Fulton County was selected as the location for the study because it is the largest county in metropolitan Atlanta and has large geographic variations in the distribution of racial and

ethnic groups and income levels. In 2023, Fulton County had over one million residents (1,070,105) and 45% were Black or African American, 45% were White, 8.1% were Asian and 7.4% were Hispanic (U.S. Census Bureau 2024). Over 12% of Fulton County residents (12.7%) had incomes below the poverty level (U.S. Census Bureau 2024). The 100 sites were chosen from a list of participating retail sites provided by tobacco companies available on The Campaign for Tobacco Free Kids' website https://www.tobaccofreekids.org/media/2023/corrective-statements. The list contained 628 sites with Fulton County zip codes and 100 (15.9%) of these sites were chosen at random using random number generation in Excel. An additional five sites in the metro-Atlanta area that were not part of the 100 randomly selected sites were chosen as training locations for the two survey team members; surveys from these sites were not included in the final set of stores as they did not have a Fulton County zip code. Ten stores were selected from the list to be surveyed by both team members and used to compute inter-rater reliability (IRR).

Survey Instrument and Study Measures

Overview

A standard survey instrument was designed in Google Forms that the two surveyors could use on their phones to collect key pieces of information at each retail store (see Appendix A for paper copy of survey instrument). The key pieces of information included (1) the store identifiers, (2) the corrective signs on the exterior of the store, (3) the corrective signs on the interior of the store, (4) the tobacco product promotions on the exterior of the store, (5) the tobacco product types sold in the store, and (6) the tobacco product promotions on the interior of the store.

Information on the tobacco product promotions and the products sold in the stores was collected to provide the relevant context related to where the corrective statements were displayed. For example, the impact of the corrective statements may be larger in retail settings that don't have tobacco advertising and sell a limited number of tobacco products. They also may give additional context to the analyses of corrective signage by geographic area (i.e., by proportion of residents of a particular racial/ethnic group or socioeconomic group in the geographic area of the retail establishment). For example, the 2021 Surgeon General's report (USDHHS 2012) found that the presence of heavy cigarette advertising in convenience stores, especially in predominantly ethnic and low-income neighborhoods, increases the likelihood of exposing youth to pro-smoking messages, which can increase initiation rates among those exposed. In addition, data on tobacco advertising and tobacco products may assist Fulton County with advocacy efforts around the retail sales environment.

The survey instrument for this study was based on the Standardized Tobacco Assessment for Retail Setting (STARS) survey which was designed to characterize the availability, placement, promotion, and price of tobacco products, with items chosen for their relevance to regulating the

retail tobacco environment (Henriksen et al. 2016). The STARS items were selected from candidate measures that had previously demonstrated reliability and policy relevance (Henriksen et al. 2016). STARS is intended to be implemented by self-trained data collectors and was developed with the expectation that independent use of the STARS form, protocol and supporting materials, without technical assistance from the developers, would yield valid and reliable estimates of the retail tobacco marketing environment (Henriksen et al. 2016). The current survey included the STARS survey items on the store identifiers, exterior store promotions, interior store promotions, and type of tobacco product sold. It was modified by adding questions about the corrective statements on the exterior and in the interior of the store.

Store Identifiers

At each retail location, survey team members entered the identifying aspects of the store: **Store ID#, Store Name, and Store Address**. These data elements were provided on the tobacco industry's list of participating retailers.

Surveyors would then record whether the information about the store name and address matched the ones provided. If the name on the store was different but the address was still the same and the store was still an establishment where corrective statements were mandated to be displayed (i.e., a convenience store that changed its name but still sold cigarettes) then the survey would proceed.

However, if the store at the address was no longer selling cigarettes, was permanently closed, was being renovated, or was demolished, then the surveyor would check an applicable option (does not exist or closed) or fill-in another reason of why the data could not be collected (i.e., inaccessible) and end the survey. The surveyor could also select that the environment was unsafe and end the survey.

Measures on the Store Exterior

Surveyors then completed the first section of the survey regarding corrective statements and advertising on the exterior of the store (including all sides of the exterior).

Observations about the outside of the retail setting included the presence of an exterior corrective statement. If the statement was present, the language of the statement was noted (i.e., English/ Spanish) and if the statement was in English, information was collected on the content of **the preamble, the text of the statement, its placement and whether it was clearly visible, and whether it was defaced or damaged**. If more than one exterior statement was present information on each of the signs was collected.

The surveyors also collected data on the presence of any tobacco product advertisements on the exterior of the store, noting the category of product including **Cigarettes Non-Menthol, Menthol Cigarettes, Cigarillos, Large Cigars, Vapes, or Other Tobacco Products** such as Zyn. If conditions were safe and the store was open, survey team members then entered the store and proceeded with the rest of the survey.

Measures in the Store Interior

Upon entering the store, the surveyor noted **the type of store** (Convenience, Kiosk, Grocery/Supermarket, Dollar Store, Beer/Wine/Liquor Store, Drug Store/Pharmacy, Tobacco/Vape Store, Other). Surveyors then looked for corrective statements around the cigarette display areas (merchandising unit). Surveyors were instructed to look around the entire tobacco product area and to walk up to the counter to simulate the experience of a typical customer. If no corrective statements were detected in the interior, then survey members recorded no corrective statement present. If there were multiple corrective statements present, surveyors recorded the content of the statements in order from nearest to furthest from the cigarette display. Surveyors were instructed to collect the language (Spanish or English). If the statement was in English, data on **the preamble, the text of the corrective statement, its placement position relative to the cigarette display (and whether the signs could have been placed in a higher priority position within the ruling's sign placement hierarchy), and whether it was defaced or obstructed** was collected (this information was not collected for the Spanish signs). Finally, surveyors also collected data on t**he types of tobacco products for sale** including cigarettes non-menthol, menthol cigarettes, cigarillos, large cigars, vapes, or other tobacco products and data on **advertisements for tobacco products** in those same categories.

Training on Data Collection and Inter-Rater Reliability

Prior to beginning data collection on the 100 randomly selected stores the two surveyors visited five stores together for training purposes. Each surveyor separately collected information from the store. After each store survey was completed, the surveyors discussed the data they collected and any differences in how they recorded the data. For example, if one surveyor missed advertising for a particular product this was pointed-out by the other surveyor and discussed. Both of the surveyors visited 10 stores at different times so that IRR could be determined. IRR was calculated for the 10 stores using Cohen's kappa (Hallgren KA 2012, McHugh ML 2012).

The two surveyors had almost perfect agreement for the interior corrective statement text (Cohen's kappa = 0.88) (McHugh 2012) (Table 2). The IRR was also substantial for the interior corrective statement preamble, the exterior e-cigarettes/vape advertisements, and the exterior non-menthol cigarette advertisement (Cohen's kappas ranged from 0.62-0.80) (McHugh 2012). The IRR was moderate for the interior e-cigarette/vape advertisements, the exterior other tobacco products advertisements, the interior menthol cigarette advertisements, the exterior menthol

cigarette advertisements, and the interior other tobacco products advertisements (Cohen's kappas ranged from 0.52-0.60). Two of the variables had fair IRR; these were the exterior preamble (Cohen's kappa = 0.40) and the interior statement location (Cohen's kappa = 0.34). These results were reviewed with the interviewers and they were encouraged to pay particular attention to collection of these data elements.

Reporting of Corrective Statement Violations

All violations of the presence and placement of corrective statements will be reported to the tip line at the end of the study.

Demographics of the Store's Census Tract

Data on the proportion of residents in the census tracts where the retail stores were located who are African American/Black and the percentage with median income below the poverty level were obtained from the AHRQ Social Determinants of Health (SDOH) Database (AHRQ 2023) using data from the American Community Survey (ACS) as estimated for 2020. The ACS is a nationwide survey designed to allow for census tract-level estimates on a variety of data including demographic characteristics of the community. The ACS has an annual sample size of about 3.5 million addresses. Data are collected continuously throughout the year and pooled across a calendar year to produce estimates for that year. Both of these measures were categorized into quartiles; the cut-points for the quartiles were determined from all 327 census tracts in Fulton County. The quartiles for percent African American/Black were < 9.96%, 9.96%-28.4%, 28.41%-83.75% and > 83.75%. and the quartiles for the percent with income below the poverty level were <3.70%, 3.71%-10.38%, 10.39%-21.26%, and > 21.26%.

Analyses

Descriptive statistics (proportions, percentages) were produced using SAS version 9.4 for each of the store descriptor variables, the preambles of the corrective statements, the text of the corrective statements, the locations of the corrective statements (and whether the signs could have been placed in a higher priority position within the ruling's sign placement hierarchy), the promotions of the tobacco products, and the type of tobacco products sold. In addition, the number of signs that the surveyors found was compared to the number of signs that the tobacco industry reported on their list. As applicable, these statistics were produced for the exterior of the store and the interior of the store.

Chi-squared tests were then used to determine if the distributions differed across both the interior and the exterior corrective statement preambles and both the exterior and interior corrective statements categories (i.e., health effects of smoking, health effects of secondhand smoke, cigarette company manipulation of the design of the cigarettes, cigarette and nicotine addictiveness, and low-tar and light cigarettes as harmful as regular cigarettes). Fisher's exact test was used to determine if the distributions differed across the 17 correctives statements in the

exterior and interior of the stores since the expected frequencies across the 17 statements were < 5 (Kim HY 2017). Differences were considered to be statistically significant at $p < 0.05$.

The distributions of the percent of stores with a violation (i.e., stores that had no interior sign), percent of interior corrective statements preambles (Philip Morris vs. R.J. Reynolds), and categories of interior corrective statements were estimated for each quartile of percent African American/Black and each quartile of percent with incomes below the poverty level to determine if variations in the categories of the corrective statements differ across these quartiles. Separate logistic regression models with the continuous percent of African American/Black residents and the continuous percent of median incomes below the poverty level were estimated for the following outcomes (1) store having a violation (i.e., no sign) where 1 = violation and 0 = no violation, (2) interior sign have a Philip Morris preamble (1 = Philip Morris Preamble, 0 = R.J.Reynolds Preamble), and (3) each of the categories of interior corrective statements (i.e., for health effects 1 = yes had a health effect sign, 0 = no health effect sign).

Results

Description of Stores

Of the 100 stores selected, 91 were able to be surveyed (91.0%). Nine stores were not surveyed: four stores (4.0%) were closed and one (1%) did not exist at that location. In addition, three stores (3.0%) could not be surveyed due to an unsafe environment and one could not be accessed due to parking fees associated with entry (1.0%) (Table 3). Ninety-nine stores had addresses and 81 had names that matched the tobacco industry's list; the 19 stores with different names were still selling tobacco and were included in the 91 stores surveyed. Of the surveyed stores, the majority were convenience stores (58.2%), followed by grocery stores (15.4%), beer/wine/liquor stores (11.0%), dollar stores (8.8%), drug stores (4.4%), and tobacco/vape stores (1.1%) (Table 4).

Exterior Corrective Statements

Exterior signs were present on 36 stores (39.6% of the 91 stores surveyed) and in terms of the number of signs on the exterior, the majority had one sign (91.7% of the 36 stores) (Table 5). Concerning the preambles of the corrective statements on the outside of the stores, 38.9% started with R.J. Reynolds, 58.4% started with Philip Morris and 2.8% had signs with both a Philip Morris Preamble and signs with a R.J. Reynolds preamble (Table 6). The chi-squared test for difference in observed vs. expected percentages of the two preambles was not statistically significant ($p = 0.24$).

In terms of the distribution of the specific corrective statement texts on the exterior, they were fairly evenly distributed; the Fisher's exact test was not statistically significant ($p = 0.87$) (Table

7). Exterior statements were also evenly distributed across messaging categories, with no significant difference across categories (Table 8) (p=0.70). The most frequent signs on the exterior were “Smoking kills, on average 1,2000 Americans. Every Day”, “There is no safe level of exposure to secondhand smoke” and “When you smoke, the nicotine actually changes the brain - that's why quitting is so hard” with each statement appearing five times (12.2%) (Table 7). Two of the corrective statements did not appear on the exteriors of any of the stores surveyed; these were “Secondhand smoke kills over 38,000 Americans each year” and “Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are not”. All of the exterior signs were clearly visible and in English while 7.3% of the signs were damaged or defaced (Table 9).

Interior Corrective Statements

All stores in the sample were supposed to have at least one corrective sign in the interior. The surveyors observed that 15 stores (16.5%) did not have a corrective sign inside (Table 10). Of the 15 stores that did not have an interior corrective statement sign, nine (60.0%) also did not have an exterior sign, 5 (33.3%) had one exterior sign and one (6.7%) had two exterior signs. The majority of the stores had one interior sign (74.7% of all stores). Only two corrective statements were in Spanish all other signs were in English (the two stores with a Spanish language sign also had an English language sign which was abstracted). The Spanish language signs were not included in the total numbers and did not impact the evaluation of compliance with the corrective statement ruling.

With regard to the preambles of the corrective statements on the interior of the stores, 43.1% started with R.J. Reynolds, 52.4% started with Philip Morris, and 5.3% had a sign that started with Philip Morris and a sign that started with R.J. Reynolds (Table 11). The chi-squared test for difference in the observed vs. expected frequency of the preambles was not statistically significant (p=0.48).

In terms of the distribution of the specific corrective statement text in the interior, they were fairly evenly distributed; the chi-squared test for difference in the observed vs. expected statement text frequency was not statistically significant (p = 0.73) (Table 12). Interior statements were also evenly distributed across messaging categories, with no significant difference across categories (p=0.24) (Table 13). The most frequent sign observed on the interior was “Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA intentionally designed cigarettes to make them more addictive”, appearing nine times total (10.8%) (Table 12). The corrective statement “Secondhand smoke kills over 38,000 Americans each year” did not appear on the interior of any of the stores that were surveyed (it also did not appear on any exterior signs - see above).

In contrast with the exterior signs which were all clearly visible only 81.6% of the interior signs were clearly visible (Table 14). Only one interior sign was defaced or damaged (1.2%) (Table 14). The majority of the interior signs were in the preferred location (≤ 6 inches from the top of the merchandising set) (61.8% of the first observed sign - i.e., the one closest to the merchandising set - and 62.5% of the second observed sign), the next most common location was > 6 inches from the top of the merchandising unit (14.5% of the first sign abstracted) (Table 15). Among the signs that were not in the first preferred location (< 6 inches from the top) 87.5% (89.6% of the first sign abstracted and 66.7% of the second sign abstracted) could have been placed in a higher priority location (Table 16).

Tobacco Product Promotions

In terms of promotions, in general more retail stores had a higher proportion had tobacco product promotions in their interiors (94.5%) than their exteriors (55.5%) (Table 17). In addition, the number of types of tobacco products promoted was lower on the exterior of the stores than the interior of the stores; the most common number of types of tobacco promoted on the exterior was two (16.5% of all stores) while the most common number of types of tobacco promoted on the interior was five (25.3% of all stores). Overall, the most commonly advertised products on the exterior were cigarillos/little cigars (37.4%) followed by menthol cigarettes (31.9%), non-menthol cigarettes (20.9%), e-cigarettes/vapes (20.9%) and other tobacco products (19.8%) (Table 17). The most commonly advertised products on the interior were non-menthol cigarettes (86.8%), followed by menthol cigarettes (78.0%), cigarillos/little cigars (58.2%), chew/snuff/dip/snus (49.5%), e-cigarettes/vapes (45.0%) and other tobacco products (including nicotine pouches - 44.0%) (Table 18). The least common type of tobacco product advertised on the exterior and in the interior was large cigars (Table 18). Convenience stores were more likely to have one or more exterior advertisements (75.5%), while Dollar stores and drug stores did not have any exterior tobacco product advertising (Table 19). Type of tobacco product advertised varied somewhat by store type with the majority of convenience stores that had any advertising promoting cigarillos (52.8%), while only 21.4% of grocery stores had a cigarillo promotion (Table 20).

In the interior, only 7.6% of convenience stores and 7.1% of grocery stores did not have any tobacco product advertisements (Table 21). The most common number of tobacco products advertised was five for convenience stores and grocery stores (28.3% of all convenience stores and 28.6% of all grocery stores), while the most common number of tobacco products advertised in Dollar stores and liquor stores was 2 (28.6% and 40.0%, respectively). The most common number of tobacco products advertised was three for drug stores (50.0% of all drug stores). Among stores with any interior promotions cigarettes (both non-menthol and menthol) were promoted by the majority of stores regardless of store type (Table 22). The majority of stores also promoted cigarillos except for grocery stores (42.9%). In addition, the majority of convenience, grocery, and tobacco stores also promoted smokeless tobacco while the majority of

convenience and tobacco stores also promoted e-cigarettes/vapes and the majority of grocery, Dollar and drug stores also promoted other tobacco products.

Tobacco Products Sold

The most common type of tobacco products sold were menthol cigarettes (96.7%), non-menthol cigarettes (96.7%), and cigarillos (93.4%). The least common item sold was large cigars (11.0%). Sixty-two out of the 91 stores sold some other category of tobacco products (68.1%). Regardless of store type the majority of stores sold cigarettes (both non-menthol and menthol) and cigarillos (Table 24). Dollar stores had a lower prevalence of selling e-cigarettes/vapes than the other store types.

Comparison of Number of Observed Signs with Number of Signs from Tobacco Industry's List

According to the tobacco industry's list available on the Campaign for Tobacco Free Kids' website six of the 91 stores that were surveyed had merchandising units that had $\geq$ 9 linear feet of cigarette products by manufacturers covered by the settlement agreement. Based on the settlement agreement these six stores were required to have two interior signs. However, the surveyors found that none of these six stores had two signs. In addition, the tobacco industry's list said that 28 stores had off-set promotional signage which required a second sign be placed in a highly visible location within 4 feet of the entrance that can be seen by customers as they enter. The surveyors observed that only 10 (35.7%) of the 28 stores had two signs (one additional store had two signs but they were both on the exterior of the store) (Table 26).

Relationship Between Interior Corrective Statements and Demographic Characteristic of the Store's Census Tract

Absence of Any Interior Corrective Statement

In terms of whether the incidence of corrective statement violations (i.e. the store did not have a corrective statement on the interior) varied by quartile of percent of people who identify as Black/African American, there was not a significant difference across quartiles (Table 26). In addition, when percent Black/African American was entered as a continuous variable into a logistic regression model where the outcome was whether the store had a violation (0 = no, 1=yes), the beta coefficient for percent Black/African American was not statistically significant (beta = -0.01, p from Wald statistic = 0.17). Likelihood of a store having a violation also did not vary significantly across quartiles of percent of persons with median income below the poverty index (Table 27), and the beta coefficient for the continuous percent of persons with median income below the poverty index in the logistic regression model where violation (0 = no, 1 = yes) was the outcome was not statistically significant (p = 0.98).

Corrective Statement Preamble and Text

Corrective statement preambles also did not vary significantly based on the quartiles of percent black/African American or percent with median income below the poverty level or in the corresponding logistic regression models (Tables 28, 31). In terms of corrective statement categories, stores in census tracts with a higher proportion of Black or African American residents were more likely to have a corrective statement that addressed the health effects of smoking than stores in census tracts with lower proportions of Black/African American residents ($p = 0.03$) (Table 30). Corrective statement categories did not vary significantly across census tracts based on median income below the poverty level (Tables 32 and 33).

Discussion

Overall, the results indicate a high rate of noncompliance with the settlement requiring corrective statements across retail locations in Fulton County Georgia, with fifteen (16.5%) of stores surveyed not having any corrective statement at all in the interior. In addition, 29 (38.2%) of the 76 interior signs that were closest to the cigarette merchandising unit were not in the preferred locations. Of the signs that were not in the preferred location the majority (89.6%) could have been placed in a higher priority location in compliance with the settlement court order. This means that customers are not receiving the planned exposure to the tobacco industry's corrective statements to address the industry's past fraudulent marketing practices.

In addition, there were also problems with the visibility of the interior signs by the customers. For example, many of the convenience stores had plexiglass between the cash register and the customer. This plexiglass was often covered with products, advertisements or other signage that obstructed the view of the corrective statements. So, while the corrective statements were technically in the preferred position (less than six inches above the cigarette merchandising set), the merchandising set was located behind the cash register and the plexiglass thereby severely limited the visibility of the signs. This placement behind the wall of plexiglass reduced exposure of customers to the corrective statement messages. In fact, many times when the statement was behind the plexiglass wall the only way the surveyors were able to collect data on the corrective signs was to duck down to the bottom of the plexiglass where the cut-out to exchange money was - a position that most customers would never be in when approaching the window to make a purchase. So, although the majority of the interior signs were in the preferred placement (≤ 6 inches from the top of the merchandising set), many were not visible to the customer. In contrast, some of the convenience stores placed the corrective signs on the plexiglass barrier between the cash register and the customer and these were all very visible to the customer. The customer's limited visibility of the signs reduced the customer's exposure to the corrective statements as well as any potential impacts on consumers' attitudes toward the tobacco industry (Matheny et al. 2019) and intentions to quit (Kollath-Cattano et al. 2014, Lee S et al. 2020).

Some other problems with sign placement were also observed including products or advertisements being placed in front of signs and part of the sign falling behind the merchandising set so the entire sign could not be read (Figure 2a, 2b). In addition, it appeared that there may have been some confusion in terms of the requirements for sign placement. For example, a few locations had two exterior signs and no interior signs and another had tobacco-related warning messages that were not approved corrective statements from the list. Noncompliance did not vary significantly across census tracts based on median income below the poverty level or percentage of Black residents and may have been more a factor of how clearly the store owner or staff understood the timing and correct placement of the signs.

There was no particular corrective statement preamble, text or category of statement that was observed to be significantly more prevalent than the others. The only significant variation in the statement categories was the association between a higher proportion of African American/Black residents in a census tract and a higher prevalence of corrective statements in the health effects of smoking category. The one study that investigated the effect of the corrective statements on cigarettes smokers' beliefs observed that the corrective statements on the health effects of smoking were more powerful than those with low tar/light cigarette messaging and nicotine addiction messaging across all racial/ethnic groups (Kollath-Cattano et al. 2014). Placement of greater numbers of signs with messages about the health effects of smoking in neighborhoods with higher prevalence of African Americans may be beneficial and may increase knowledge of the damage cigarette smoking causes among this population. It is possible that this relationship may be due to chance or is a Type I error; however, given the lack of current research on the consumers' perceptions of the corrective statements it is also possible that the placement of signs has been somehow manipulated and not random.

Correct statements in retail stores must be placed in the context of the tremendous level of advertising of tobacco products and their availability in these settings (USDHHS 2012). Advertisements for various tobacco products were ubiquitous in the interior of the stores across all store types, while in terms of exterior advertising, 75.5% of convenience stores had at least one tobacco advertisement while the majority of other store types did not. These findings highlight that the effectiveness of the corrective statements may be diminished with consumer's attention focused instead on the plethora of tobacco promotions. However, the data also show that it is possible for stores to have no advertisements and still conduct business (i.e., 7.6% of convenience stores had no internal advertising). Nevertheless, tobacco products were also widely available in these retail stores. A majority of the stores surveyed sold non-menthol and menthol cigarettes, cigarillos, smokeless tobacco, and vapes. Large cigars were not as commonly sold (11.0%) and other tobacco products were sold at 68.1% of stores.

Public health implications of this study point to the need for independent public health organizations to survey the retail stores that are required to display the tobacco industry

corrective signs to ensure that the signs are present and are clearly visible to the customers. These assessments by independent groups are also necessary to accurately determine whether the correct number of signs is being placed. This is of particular concern because this study found discrepancies between the number of signs the tobacco industry reported should be in the stores and the actual number found in the stores. This study also affirms the need for continued monitoring of retail stores that sell tobacco products to document the amount of advertising in these settings and the type of tobacco products sold (Henriksen et al. 2016). This information can be used by public health organizations to identify when new tobacco products are introduced to their community and to educate the public and policy makers about the extent of advertising in retail settings and policy options to lower the community's exposure to tobacco industry marketing, promotions, and products (Giovenco et al 2024, Welwean et al. 2022).

Limitations of this survey include the limited number of stores able to be surveyed, (n=91) representing 14.5% of the total list compared with the 15% target, due to safety and budget constraints and some of the stores going out of business since the tobacco industry created the list of stores. The ability of surveyors to accurately assess the distance from the statement to the top of the display (whether it was less than or greater than six inches) between raters was also a concern with a Cohen's Kappa of 0.34 being observed. While the survey instrument did leave a section for other observations and notes, the approach based strictly on the location of the corrective statement and whether it was defaced, damaged, or not visible may not have fully capture the nuance of how the statements were being obscured or how other factors not listed affected a customer's ability to see the statement. Only two Spanish statements in total were observed during the course of the survey and there was not enough data to conclude whether or not compliance with the part of the order mandating that Spanish statements be placed in areas with many Spanish speakers was being adhered to in a meaningful way. Further research is needed to identify the magnitude of possible noncompliance with that part of the order. Finally, only two demographic characteristics were examined in relation to the corrective statement placement (percent of African Americans in the store's census tract and percent of persons with incomes below the poverty level in the store's census tract). It is possible that corrective sign placement might be related to other demographic characteristics that were not examined by this study.

Conclusion

The high rate of noncompliance (absence of interior signs, not visible signs, and signs in lower priority locations) with the corrective statements order across retail locations in Fulton County is cause for concern and further investigation. Sixteen of the seventeen corrective statements were observed with no significant differences in statement text prevalence which indicated compliance with the random assignment aspect of the corrective statements order. However, there was a

direct relation observed between the percentage of African Americans in the store's census tract and the corrective statement on the health effects of smoking. This relationship could possibly be beneficial to educate persons about the health effects of smoking; however, more research is needed on how African Americans and other groups perceive these signs. Tobacco advertisements and sales were ubiquitous across the interiors of all store types and most likely significantly detract from the impact or visibility of corrective statements. Because of the temporary nature of the corrective statements order and the high rate of noncompliance, it calls into question whether the corrective statements' messaging is actually reaching consumers and whether the damage from the tobacco industry's disinformation campaign is being effectively mitigated in line with the court's order.

Table 1. POS Corrective-Statement Signs

A. Preambles

A FEDERAL COURT HAS ORDERED R.J. REYNOLDS TOBACCO & PHILIP MORRIS USA TO STATE:

A FEDERAL COURT HAS ORDERED PHILIP MORRIS USA & R.J. REYNOLDS TO STATE:

B. Corrective Statements grouped by theme

B1. Health Effects of Smoking

Smoking kills, on average, 1,200 Americans. Every day.

More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol **combined**.

Smoking causes heart disease, emphysema, acute myeloid leukemia, and cancer of the mouth esophagus, larynx, lung, stomach, kidney, bladder, and pancreas.

Smoking also causes reduced fertility, low birth weight in newborns, and cancer of the cervix.

B2. Health Effects of Secondhand Smoke

Secondhand smoke kills over 38,000 Americans each year.

Secondhand smoke causes lung cancer and coronary heart disease in adults who do **not** smoke.

Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, severe asthma, and reduced lung function.

There is no safe level of exposure to secondhand smoke.

B3. Cigarette Companies Manipulating the Design of Cigarettes

Altria, R.J. Reynolds Tobacco, Lorillard, and Philp Morris USA intentionally designed cigarettes to make them more addictive.

Cigarette companies intentionally designed cigarettes with enough nicotine to increase and sustain addiction.

Cigarette companies control the impact and delivery of nicotine in many ways, including designing filters and selecting cigarette paper to maximize the ingestion of nicotine, adding ammonia to make the cigarettes taste less harsh, and controlling the physical and chemical make-up of the tobacco blend.

B4. Cigarette and Nicotine Addictiveness

Smoking is highly addictive. Nicotine is the addictive drug in tobacco.

When you smoke, the nicotine actually changes the brain – that's why quitting is so hard.

It's not easy to quit.

B5. Low Tar and Light Cigarettes as Harmful as Regular Cigarettes

All cigarettes cause cancer, lung disease, heart attacks, and premature death – lights, low tar, ultra lights, and naturals. There is no safe cigarette.

Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are not.

"Low tar" and "light" cigarette smokers intake essentially the same amount of tar and nicotine as they would from regular cigarettes.

Table 2. Inter-Rater Reliability

	Cohen's Kappa	**p-value**
Interior Corrective Statement Text	0.88	<0.0001
Interior Corrective Statement Preamble	0.80	<0.01
Exterior e-cigarette, vape ad	0.74	0.01
Exterior non-menthol cigarette ad	0.62	0.02
Interior e-cigarette, vape ad	0.60	0.02
Exterior other tobacco product ad	0.60	0.02
Interior menthol cigarette ad	0.55	0.03
Exterior menthol cigarette ad	0.55	0.03
Interior other tobacco ad	0.52	0.05
Exterior preamble	0.40	0.19
Interior statement location	0.34	0.05

(kappa could not be calculated for vapes for sale and chew for sale)

Table 3. Disposition of Stores

Store Disposition	**Number of Stores**	**%**
Store can be assessed	91	91.0
Store does not exist	1	1.0
Store closed	4	4.0
Environment unsafe	3	3.0
Asked to leave	0	0.0
Could not complete (other)	1	1.0
Total	100	100

Table 4. Distribution of Store Type

Store Type	**Number of Stores**	**%**
Convenience	53	58.2
Kiosk	1	1.1
Grocery/Supermarket	14	15.4
Dollar Store	8	8.8
Beer/Wine/Liquor Store	10	11.0
Drug Store/Pharmacy	4	4.4
Tobacco/Vape Store	1	1.1
Total	91	100.0
Could not be Surveyed	9	

Table 5. Number of Exterior Signs

Number of Signs	**Number of Stores**	**%**
0	55	60.4
1	33	36.3
2	2	2.2
4	1	1.1
Total	91	100.0

Table 6. Distribution of Exterior Signs' Corrective Statement Preambles

Preamble	**Number of Signs**	**%**
One Philip Morris Preamble	20	55.6
One R.J. Reynolds Preamble	13	36.1
Two Philip Morris Preambles	1	2.8
Two R.J. Reynolds Preambles	1	2.8
Three Philip Morris and One R.J. Reynolds Preambles	1	2.8
Total	36	100.0

Chi-square test = 1.40, one degree of freedom (for collapsed Philip Morris preamble vs. RJR Reynolds Preamble, p-value = 0.24

Table 7. Distribution of Exterior Signs' Corrective Statement Text

Corrective Statement Text	Number of Signs	%
Health Effects of Smoking		
Smoking kills, on average, 1,200 Americans. Every day	5	12.2
More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol **combined.**	1	2.4
Smoking causes heart disease, emphysema, acute myeloid leukemia, and cancer of the mouth esophagus, larynx, lung, stomach, kidney, bladder, and pancreas.	2	4.9
Smoking also causes reduced fertility, low birth weight in newborns, and cancer of the cervix	3	7.3
Health Effects of Secondhand Smoke		
Secondhand smoke kills over 38,000 Americans each year.	0	0.0
Secondhand smoke causes lung cancer and coronary heart disease in adults who do **not** smoke.	4	9.8
Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, severe asthma, and reduced lung function	2	4.9
There is no safe level of exposure to secondhand smoke.	5	12.2
Cigarette Company Manipulating the Design of Cigarettes		
Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA intentionally designed cigarettes to make them more addictive.	1	2.4
Cigarette companies intentionally designed cigarettes with enough nicotine to increase and sustain addiction.	2	4.9
Cigarette companies control the impact and delivery of nicotine in many ways, including designing filters and selecting cigarette paper to maximize the ingestion of nicotine, adding ammonia to make the cigarettes taste less harsh, and controlling the physical and chemical make-up of the tobacco blend.	2	4.9

Cigarette and Nicotine Addictiveness		
Smoking is highly addictive. Nicotine is the addictive drug in tobacco.	0	0.0
When you smoke, the nicotine actually changes the brain - that's why quitting is so hard.	5	12.2
It's not easy to quit	4	9.8
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes		
All cigarettes cause cancer, lung disease, heart attacks, and premature death - lights, low tar, ultra lights, and naturals. There is no safe cigarette.	4	9.8
Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are not.	0	0.0
"Low tar" and "light" cigarettes smokers intake essentially the same amount of tar and nicotine as they would from regular cigarettes.	1	2.4
Total	41	100

Fisher's exact test p-value = 0.83

Table 8. Distribution of Exterior Signs' Corrective Statements by Category

Corrective Statement Category	**Number of Signs**	**%**
Health Effects of Smoking (n=4)	11	26.8
Health Effects of Secondhand Smoke (n=4)	11	26.8
Cigarette Company Manipulating the Design of Cigarettes(n=3)	5	12.2
Cigarette and Nicotine Addictiveness (n=3)	9	22.0
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes (n=3)	5	12.2
Total	41	100.0

Chi-square test = 2.2 with 4 degrees of freedom p-value = 0.70

Table 9. Condition of the Exterior Signs

Condition of Sign	**Number of Signs**	**%**
Sign was Damaged/Defaced	3	7.3
Sign was Not Damaged	38	92.7
Total	41	100.0

Note: All of the exterior signs were clearly visible.

Table 10. Number of Interior Signs

Number of Signs in Each Store	Number of Signs	%
0	15	16.5
1	68	74.7
2	8	8.8
Total	91	100.0

Table 11. Distribution of Interior Signs' Corrective Statement Preambles

Preamble	**Number of Signs**	**%**
One Philip Morris Preamble	36	47.4
One R.J. Reynolds Preamble	32	42.1
Two Philip Morris Preambles	3	4.0
Two R.J. Reynolds Preambles	1	1.3
One Philip Morris and One R.J. Reynolds Preamble	4	5.3
Total	76	100.0

Chi-square test = .50, one degree of freedom (for collapsed Philip Morris preamble vs. RJR Reynolds Preamble), p-value = 0.48

Table 12. Distribution of Interior Signs' Corrective Statement Text

Corrective Statement Category	Sign 1		Sign 2	
	n	%	n	%
Health Effects of Smoking				
Smoking kills, on average, 1,200 Americans. Every day	7	9.2	0	0.0
More people die every year from smoking than from murder, AIDS, suicide, drugs, car crashes, and alcohol **combined.**	6	7.9	0	0.0
Smoking causes heart disease, emphysema, acute myeloid leukemia, and cancer of the mouth esophagus, larynx, lung, stomach, kidney, bladder, and pancreas.	2	2.6	0	0.0
Smoking also causes reduced fertility, low birth weight in newborns, and cancer of the cervix	4	5.3	1	12.5
Health Effects of Secondhand Smoke				
Secondhand smoke kills over 38,000 Americans each year.	0	0	0	0,0
Secondhand smoke causes lung cancer and coronary heart disease in adults who do **not** smoke.	5	6.6	0	0.0
Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, severe asthma, and reduced lung function	1	1.3	2	25.0
There is no safe level of exposure to secondhand smoke.	5	6.6	0	0.0
Cigarette Company Manipulating the Design of Cigarettes				
Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA intentionally designed cigarettes to make them more addictive.	7	9.2	2	25.0
Cigarette companies intentionally designed cigarettes with enough nicotine to increase and sustain addiction.	3	4.0	0	0.0
Cigarette companies control the impact and delivery of nicotine in many ways, including designing filters and selecting cigarette paper to maximize the ingestion of nicotine, adding ammonia to make the	4	5.3	0	0.0

cigarettes taste less harsh, and controlling the physical and chemical make-up of the tobacco blend.				
Cigarette and Nicotine Addictiveness				
Smoking is highly addictive. Nicotine is the addictive drug in tobacco.	8	10.5	0	0.0
When you smoke, the nicotine actually changes the brian - that's why quitting is so hard.	8	10.5	0	0.0
It's not easy to quit	1	1.3	1	12.5
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes				
All cigarettes cause cancer, lung disease, heart attacks, and premature death - lights, low tar, ultra lights, and naturals. There is no safe cigarette.	6	7.9	1	12.5
Many smokers switch to low tar and light cigarettes rather than quitting because they think low tar and light cigarettes are less harmful. They are not.	5	6.6	1	12.5
"Low tar" and "light" cigarettes smokers intake essentially the same amount of tar and nicotine as they would from regular cigarettes.	4	5.3	0	0.0
Total	76	100	8	100.0

Fisher's exact test p-value = 0.73

Table 13. Distribution of Interior Signs' Corrective Statements by Category

Corrective Statement Category	Sign 1		Sign 2	
	n	**%**	**n**	**%**
Health Effects of Smoking (n=4)	19	25.0	1	12.5
Health Effects of Secondhand Smoke (n=4)	11	14.5	2	25.0
Cigarette Company Manipulating the Design of Cigarettes (n=3)	14	18.4	2	25.0
Cigarette and Nicotine Addictiveness (n=3)	17	22.4	1	12.5
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes (n=3)	15	19.7	2	25.0
Total	76	100	8	100

Chi-square test = 4.22 with 4 degrees of freedom p-value = 0.2387

Table 14. Visibility of the Interior Signs

Sign Visibility	Number of Signs	%
One Sign was Clearly Visible	55	72.4
One Sign was Non-Visible	13	17.1
Two Signs were Clearly Visible	7	9.2
Two Signs were Both Non-Visible	1	1.3
Total	76	100

Note: Out of the 84 interior signs, one was defaced (1.2%).

Table 15. Distribution of Interior Signs by Location

Sign Location	Sign 1		Sign 2	
	Number of Sign	**%**	**Number of Signs**	**%**
Above Set ≤ 6 inches from top (Preferred)	47	61.8	5	62.5
Above Set > 6 inches from top	11	14.5	0	0.0
On Side (≤ 6 inches from Set)	4	5.3	1	12.5
On Side (> 6 inches from Set)	1	1.3	0	0.0
On wall (≥ 48 inches from floor)	4	5.3	1	12.5
Perpendicular to set (≥ 48 inches from floor)	2	2.6	0	0.0
≤ 48 inches from Main Entrance	1	1.3	0	0.0
< 48 inches from Register	2	2.6	0	0.0
Other (For Example, on ceiling)	4	5.3	1	12.5
Total	76	100	8	100

Table 16. Percent of Signs that Could Have Been Placed in a Higher Priority Location

Sign Location	Sign 1		Sign 2	
	Number of Signs	**%**	**Number of Signs**	**%**
Above Set > 6 inches from top	11	100.0	0	0.0
On Side (≤ 6 inches from Set)	4	75.0	1	100.0
On Side (> 6 inches from Set)	1	100.0	0	0.0
On wall (≥ 48 inches from floor)	4	75.0	1	100.0
Perpendicular to set (≥ 48 inches from floor)	2	100.0	0	0.0
≤ 48 inches from Main Entrance	1	100.0	0	0.0
< 48 inches from Register	2	100.0	0	0.0
Other	4	75.0	1	0.0
Total	29	89.6	3	66.7

Table 17. Number of Types of Tobacco Products Advertised on Exterior and Interior of Each Store

Number of Different Types of Tobacco Products Advertised	Exterior		Interior	
	Number of Stores	%	Number of Stores	%
0	41	45.0	5	5.5
1	14	15.4	4	4.4
2	15	16.5	14	15.4
3	7	7.7	22	24.2
4	6	6.6	10	11.0
5	5	5.5	23	25.3
6	2	2.2	11	12.1
7	1	1.1	2	2.2
Total	91	100	91	100

Table 18. Type of Tobacco Products Advertised on Exterior and Interior of Each Store that had at Least One Product Advertised

Type of Tobacco Product	Exterior		Interior	
	Number of stores	%	Number of Stores	%
Cigarettes non-menthol	19	20.9	79	86.8
Cigarettes menthol	29	31.9	71	78.0
Cigarillos/little cigars	34	37.4	53	58.2
Large cigars	4	4.4	4	4.4
Chew, moist or dry snuff, dip or snus	10	11.0	45	49.5
E-cigarettes, vapes	19	20.9	41	45.0
Other tobacco products	18	19.8	40	44.0
Total	50	100	86	100

Table 19. Percent Distribution of Number of Types of Tobacco Products Advertised on Exterior by Store Type

Number of Different Types of Tobacco Advertised	Convenience (n = 53)	Kiosk (n=1)	Grocery (n=14)	Dollar (n=8)	Liquor (n=10)	Drug (n=4)	Tobacco (n=1)
	%	%	%	%	%	%	%
0	24.5	0.0	71.4	100	60.0	100.0	0.0
1	24.5	0.0	7.1	0.0	0.0	0.0	0.0
2	20.8	0.0	0.0	0.0	30.0	0.0	100.0
3	11.3	0.0	7.1	0.0	0.0	0.0	0.0
4	7.6	100	0.0	0.0	10.0	0.0	0.0
5	7.6	0.0	7.1	0.0	0.0	0.0	0.0
6	3.8	0.0	0.0	0.0	0.0	0.0	0.0
7	0	0.0	7.1	0.0	0.0	0.0	0.0

Table 20. Percent Distribution of Type of Tobacco Products Advertised on Exterior by Store Type

Type of Tobacco Product	Convenience (n = 53)	Kiosk (n=1)	Grocery (n=14)	Dollar (n=8)	Liquor (n=10)	Drug (n=4)	Tobacco (n=1)
	%	%	%	%	%	%	%
Cigarettes non-menthol	22.6	100	21.4	0.0	20.0	0.0	100.0
Cigarettes menthol	39.6	0.0	21.4	0.0	40.0	0.0	100.0
Cigarillos/little cigars	52.8	100	21.4	0.0	20.0	0.0	0.0
Large cigars	3.8	0.0	7.2	0.0	10.0	0.0	0.0
Chew, moist or dry snuff, dip or snus	15.1	100	7.1	0.0	0.0	0.0	0.0
E-cigarettes, vapes	32.1	0.0	14.3	0.0	0.0	0.0	0.0
Other tobacco products	24.5	100	21.4	0.0	10.0	0.0	0.0

Table 21. Percent Distribution of Number of Types of Tobacco Products Advertised on Interior by Store Type

Number of Different Types of Tobacco Products Advertised	Convenience (n = 53)	Kiosk (n=1)	Grocery (n=14)	Dollar (n=8)	Liquor (n=10)	Drug (n=4)	Tobacco (n=1)
	%	%	%	%	%	%	%
0	7.6	0.0	7.1	0.0	0.0	0.0	0.0
1	5.7	0.0	7.1	0.0	0.0	0.0	0.0
2	7.6	0.0	7.1	28.6	40.0	25.0	0.0
3	20.8	0.0	21.4	13.6	30.0	50.0	0.0
4	11.3	0.0	21.4	0.0	10.0	0.0	0.0
5	28.3	0.0	28.6	4.3	20.0	0.0	100
6	17.0	100.0	0.0	0.0	0.0	25.0	0.0
7	1.9	0.0	7.1	0.0	0.0	0.0	0.0

Table 22. Percent Distribution of Type of Tobacco Products Advertised in Interior by Store Type

Type of Tobacco Product	Convenience (n = 53)	Kiosk (n=1)	Grocery (n=14)	Dollar (n=8)	Liquor (n=10)	Drug (n=4)	Tobacco (n=1)
	%	%	%	%	%	%	%
Cigarettes non-menthol	83.2	100	85.7	100	90.0	100	100
Cigarettes menthol	79.3	100	64.3	50.0	100	100	100
Cigarillos/little cigars	64.2	100	42.9	50.0	50.0	50.0	100
Large cigars	3.8	0.0	7.1	0.0	10.0	0.0	0.0
Chew, moist or dry snuff, dip or snus	54.7	100	71.4	12.5	20.0	25.0	100
E-cigarettes, vapes	52.8	100	35.7	12.5	40.0	25.0	100
Other tobacco products	47.2	100	57.2	50.0	0.0	50.0	0.0

Table 23. Number of Stores Selling Each Type of Tobacco Product

Type of Tobacco Product	**Number of Stores**	**%**
Cigarettes non-menthol	88	96.7
Cigarettes menthol	88	96.7
Cigarillos/little cigars	85	93.4
Large cigars	10	11.0
Chew, moist or dry snuff, dip or snus	72	79.1
E-cigarettes, vapes	59	64.8
Other tobacco products	62	68.1
Total	91	

Table 24. Percent of Stores Selling Each Type of Tobacco Product

Type of Tobacco Product	Convenience (n = 53)	Kiosk (n=1)	Grocery (n=14)	Dollar (n=8)	Liquor (n=10)	Drug (n=4)	Tobacco (n=1)
	%	%	%	%	%	%	%
Cigarettes non-menthol	100	100	100	87.5	90.0	100	100
Cigarettes menthol	100	100	100	87.5	90.0	100	100
Cigarillos/little cigars	96.2	100	85.7	87.5	90.0	100	100
Large cigars	9.4	0.0	14.3	0.0	20.0	25.0	0.0
Chew, moist or dry snuff, dip or snus	88.7	100	85.7	75.0	20.0	75.0	100
E-cigarettes, vapes	79.2	100	50.0	12.5	60.0	50.0	100
Other tobacco products	73.6	100	71.4	62.5	30.0	100	0.0

Table 25. Distribution of the Number of Exterior and Interior Signs for Stores Where the Tobacco Industry Reported There Would be Two Signs.

Number of Signs	Number of Stores	%
No exterior sign, No Interior Sign (Noncompliant)	2	7.1
No exterior sign, One Interior Sign	13	46.4
One exterior sign, No Interior Sign (Noncompliant)	2	7.1
Two exterior signs, No Interior Sign (Noncompliant unless Kiosk)	1	3.6
No exterior sign, Two Interior Signs	2	7.1
One exterior sign, Two Interior Signs	1	3.6
One exterior sign, One Interior Sign	7	25.0
Total	28	100

Table 26. Percent of Stores Without a Corrective Statement (Violation) by Quartile of Percent African Americans/Blacks in Store's Census Tract and Beta Coefficient, Standard Error, Wald Statistic from Logistic Regression Model with Violation as the Dependent Variable and Percent of African Americans/Blacks in Census Tract as the Independent Variable.

	Quartile of Percent of African Americans/Blacks in Store's Census Tract			
Presence of Correct Statement	**Quartile 1 <9.95% (Number of Stores=11) %**	**Quartile 2 9.96-28.40% (n=20) %**	**Quartile 3 28.41-83.75% (n=32) %**	**Quartile 4 >83.75% (n=28) %**
No Corrective Statement Present	18.2	20.0	18.8	10.7
Corrective Statement Present	81.8	80.0	81.3	89.3
Logistic Regression Model	**Beta Coefficient**	**Standard Error of Beta Coefficient**	**Wald Statistic**	**p-value**
Percent of African Americans/ Blacks in Census Tract (n=76)	-0.0113	0.0083	1.88	0.1707

Table 27. Percent of Stores Without a Corrective Statement (Violation) by Quartile of Percent with Median Income Below the Poverty Index in Store's Census Tract and Beta Coefficient, Standard Error, Wald Statistic from Logistic Regression Model with Violation as the Dependent Variable and Percent with Median Income Below the Poverty Index in Census Tract as the Independent Variable.

Presence of Correct Statement	**Quartile of Percent with Median Income Below the Poverty Level in Store's Census Tract**			
	Quartile 1 <3.70% (Number of Stores=13)	**Quartile 2 3.71-10.38% (n=18)**	**Quartile 3 10.39-21.26% (n=27)**	**Quartile 4 >21.26% (n=33)**
	%	**%**	**%**	**%**
No Corrective Statement Present	7.7	22.2	14.8	18.2
Corrective Statement Present	92.3	77.8	85.2	81.8
Logistic Regression Model	**Beta Coefficient**	**Standard Error of Beta Coefficient**	**Wald Statistic**	**p-value**
Percent with Median Income Below the Poverty Index (n=76)	0.0005	0.0228	0.0004	0.9836

Table 28. Distribution of Interior Signs' Corrective Statement Preambles by Quartile of Percent African Americans/Blacks in Store's Census Tract and Beta Coefficient, Standard Error, Wald Statistic from Logistic Regression Model with Preamble (Philip Morris vs. R.J. Reynolds) as the Dependent Variable and Percent with Percent African American/Black as the Independent Variable.

Preamble Text	Quartile of Percent of African Americans/ Blacks in Store's Census Tract*			
	Quartile 1 <9.96% (Number of Stores=9) %	Quartile 2 9.96-28.40 (n=16) %	Quartile 3 28.41-83.75 (n=26) %	Quartile 4 >83.75% (n=25) %
One Philip Morris Preamble	50.0	71.4	47.8	33.3
One R.J. Reynolds Preamble	50.0	28.6	34.8	51.9
Two Philip Morris Preambles	0.0	0.0	8.7	3.7
Two R.J. Reynolds Preambles	0.0	0.0	4.4	0.0
One Philip Morris and One R.J. Reynolds	0.0	0.0	4.4	11.1
Logistic Regression Model	**Beta Coefficient**	**Standard Error of Beta**	**Wald Statistic**	**p-value**
Percent of African Americans/ Blacks in Census Tract (n=72)	-0.0090	0.0069	1.71	0.1906

Table 29. Distribution of Interior Corrective Statement Category by Quartile of Percent African Americans/Blacks in Store's Census Tract

Corrective Statement Text Category	Quartile 1 <9.96% (Number of Stores=9)	Quartile 2 9.96-28.40% (n=16)	Quartile 3 28.41-83.75% (n=26)	Quartile 4 >83.75% (n=25)
	%	%	%	%
Health Effects of Smoking	11.1	12.5	26.9	40.0
Health Effects of Secondhand Smoke	22.2	18.8	23.1	4.0
Cigarette Company Manipulating the Design of Cigarettes	22.2	18.8	23.1	16.0
Cigarette and Nicotine Addictiveness	33.3	25.0	7.7	24.0
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes	11.1	25.0	19.2	16.0

Table 30. Beta Coefficients, Standard Errors and Wald Statistics for Percent African American/Black in Store's Census Tract from Separate Logistic Regression Models for Each Interior Corrective Statement Category

	Beta Coefficient	Standard Error	Wald Statistic	p-value
Health Effects of Smoking	0.0188	0.0089	4.82	0.0343
Health Effects of Secondhand Smoke	-0.0067	0.0089	0.56	0.4508
Cigarette Company Manipulating the Design of Cigarettes	-0.0013	0.0083	0.02	0.8755
Cigarette and Nicotine Addictiveness	-0.0077	0.0082	0.88	0.3488
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes	-0.0055	0.0084	0.468	0.5136

Table 31. Distribution of Interior Signs' Corrective Statement Preambles by Quartile of Percent with Median Income Below the Poverty Level in Store's Census Tract and Beta Coefficient, Standard Error, Wald Statistic from Logistic Regression Model with Preamble (Philip Morris vs. R.J. Reynolds) as the Dependent Variable and Percent with Median Income Below the Poverty Index in Census Tract as the Independent Variable.

Preamble Text	**Quartile of Percent with Median Income Below the Poverty Level in Store's Census Tract**			
	Quartile 1 <3.70% (Number of Stores=12)	**Quartile 2 3.71-10.38% (n=14)**	**Quartile 3 10.39-21.26% (n=23)**	**Quartile 4 >21.26% (n=27)**
One Philip Morris Preamble	50.0	71.4	47.8	33.3
One R.J. Reynolds Preamble	50.0	28.6	34.8	51.9
Two Philip Morris Preambles	0.0	0.0	8.7	3.7
Two R.J. Reynolds Preambles	0.0	0.0	4.4	0.0
One Philip Morris, One R.J. Reynolds Preamble	0.0	0.0	4.4	11.1
Logistic Regression Model	**Beta Coefficient (S.E.)**	**Standard Error of Beta Coefficient**	**Wald Statistic**	**p-value**
Percent of African Americans/ Blacks in Census Tract (n=72)	-0.0293	0.0194	2.28	0.1307

Table 32. Distribution of Interior Corrective Statement Category by Quartile of Percent with a Median Income Below the Poverty Level in Store's Census Tract

Corrective Statement Category	Quartile of Percent with Median Income Below the Poverty Level in Store's Census Tract			
	Quartile 1 <3.70% (Number of Stores=12)	Quartile 2 3.71-10.38% (n=14)	Quartile 3 10.39-21.26% (n=23)	Quartile 4 >21.26% (n=27)
	%	%	%	%
Health Effects of Smoking	8.3	28.6	34.8	25.9
Health Effects of Secondhand Smoke	33.3	7.1	21.7	7.4
Cigarette Company Manipulating the Design of Cigarettes	8.3	21.4	13.0	29.7
Cigarette and Nicotine Addictiveness	33.3	21.4	17.4	14.8
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes	16.7	21.4	13.0	22.2

Table 33. Beta Coefficients, Standard Errors and Wald Statistics for Percent with Median Income below the Poverty Level in Store's Census Tract from Separate Logistic Regression Models for Each Interior Corrective Statement Category

Corrective Statement Category	Beta Coefficient	Standard Error	Wald Statistic	p-value
Health Effects of Smoking	0.0060	0.0205	0.08	0.7711
Health Effects of Secondhand Smoke	-0.0274	0.0279	0.96	0.3261
Cigarette Company Manipulating the Design of Cigarettes	0.0345	0.0223	2.40	0.1215
Cigarette and Nicotine Addictiveness	-0.0476	0.0280	2.90	0.0886
Low Tar and Light Cigarettes as Harmful as Regular Cigarettes	0.0174	0.0228	0.58	0.4444

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Appendix: A

Figure 1: A photograph of a convenience store with a corrective statement on the exterior, flanked by ads for cigarillos and menthol cigarettes.

Figure 2.a: Photograph of a typical customer's view, approaching the counter of a store with the corrective statement in the "correct" location at the top of the display but is obstructed by a large "Kool" menthol tobacco advertisement. Can you spot the corrective statement in this photo?

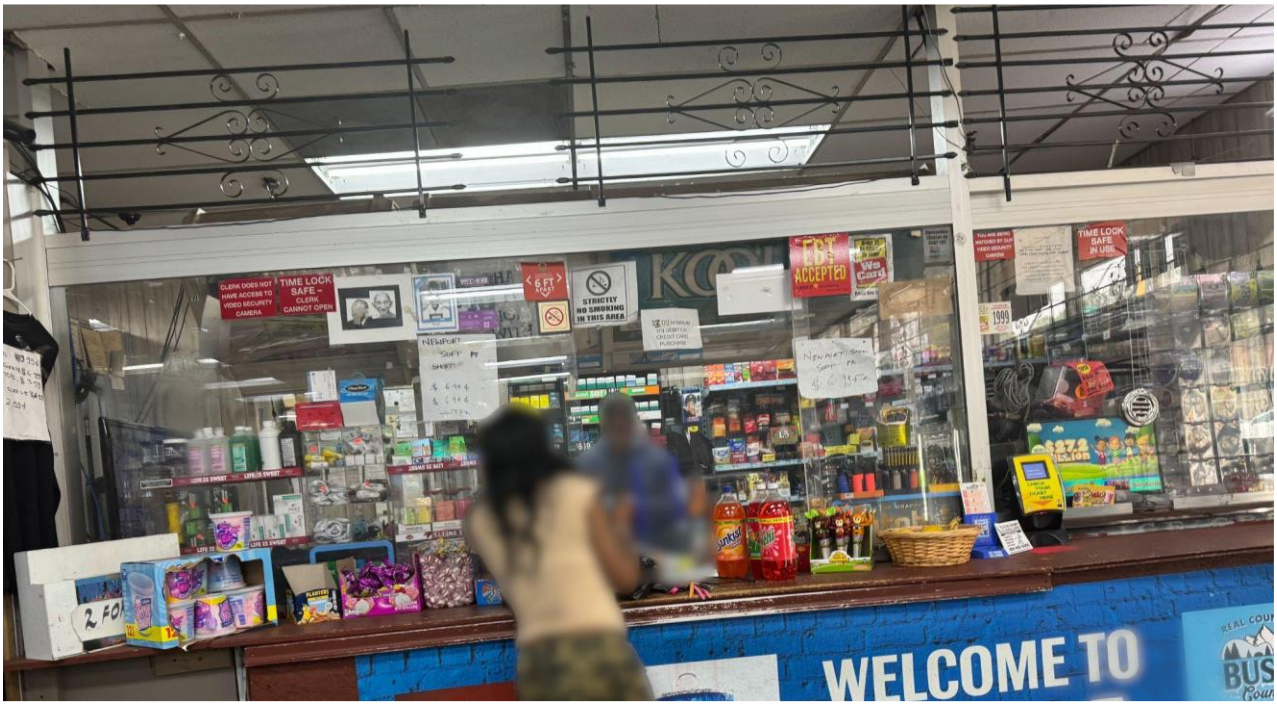


Figure 2.b: Side angle of Figure 2.a. The corrective statement can only be seen when looking from a specific angle in the doorway of the store; it is unlikely customers would see it unless they were standing at this angle in the doorway while checking out.

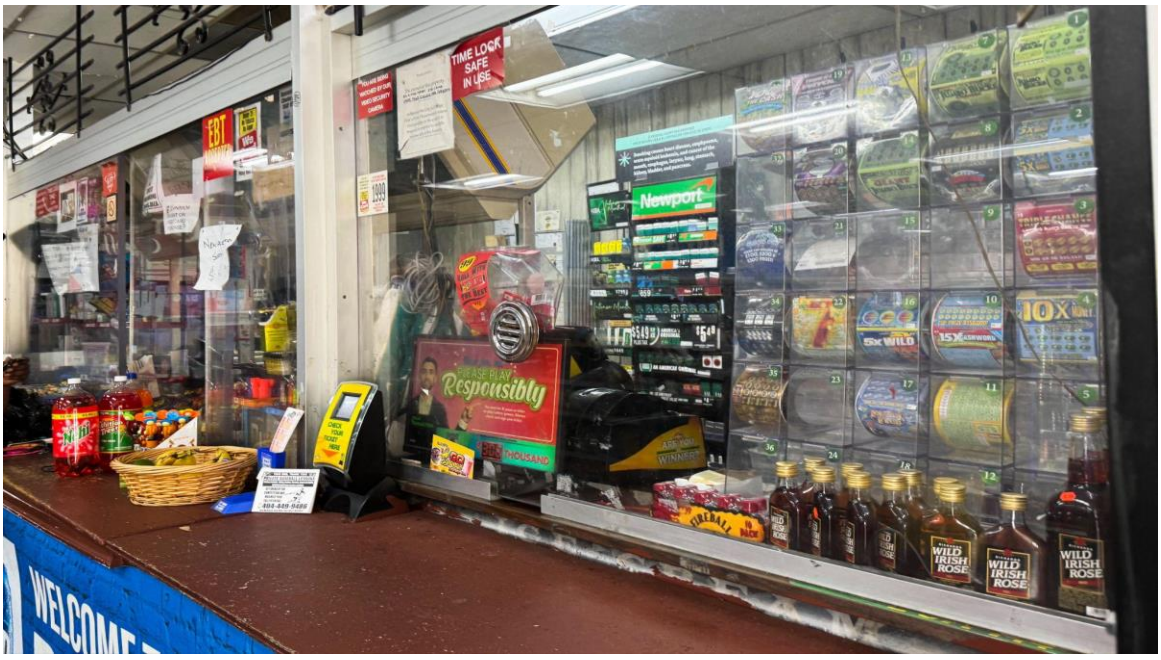


Figure 3: A convenience store with a corrective statement on the plexiglass barrier at the register.

Figure 4: A liquor store with a corrective statement perpendicular to the cigarette display at checkout.

Figure 5.a: A tobacco display in the interior of a pharmacy with no corrective statement present.

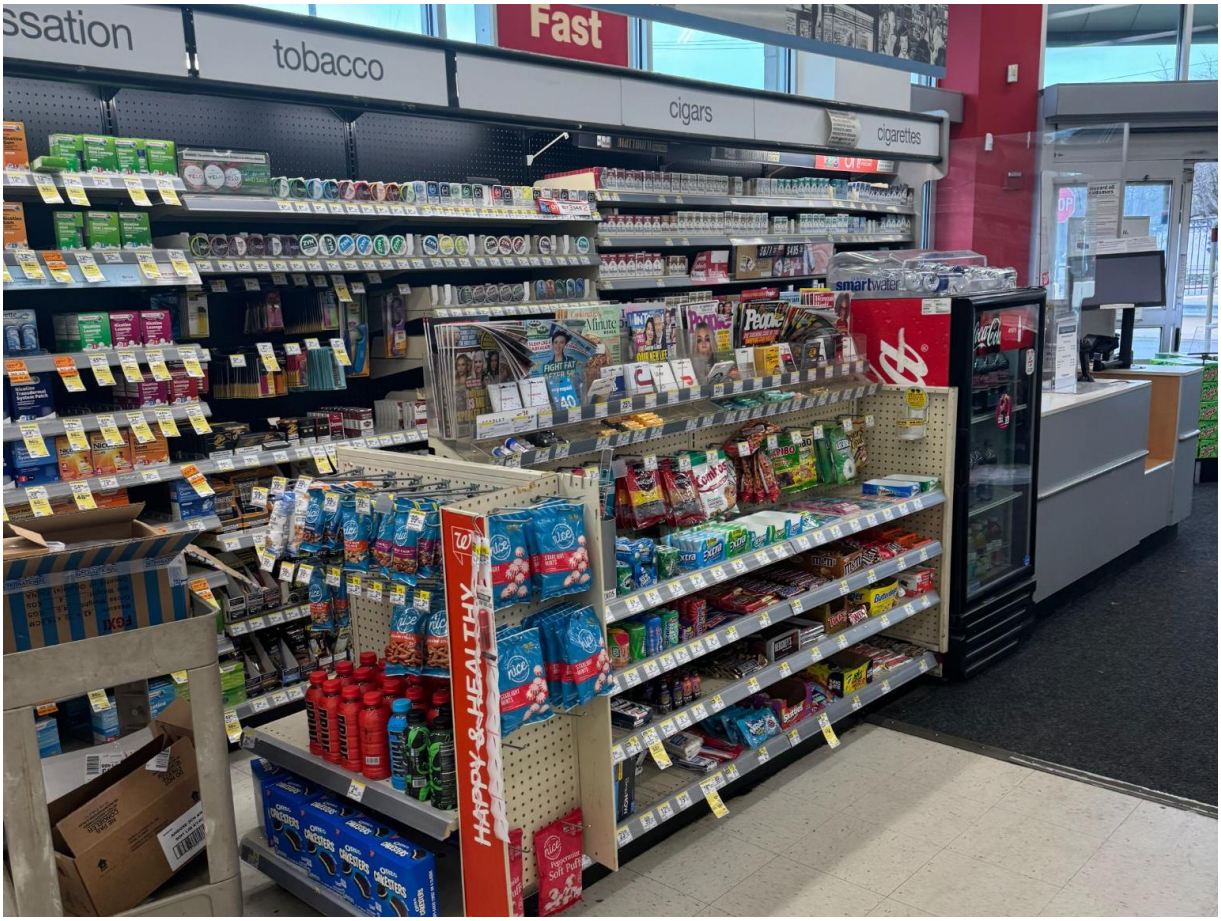
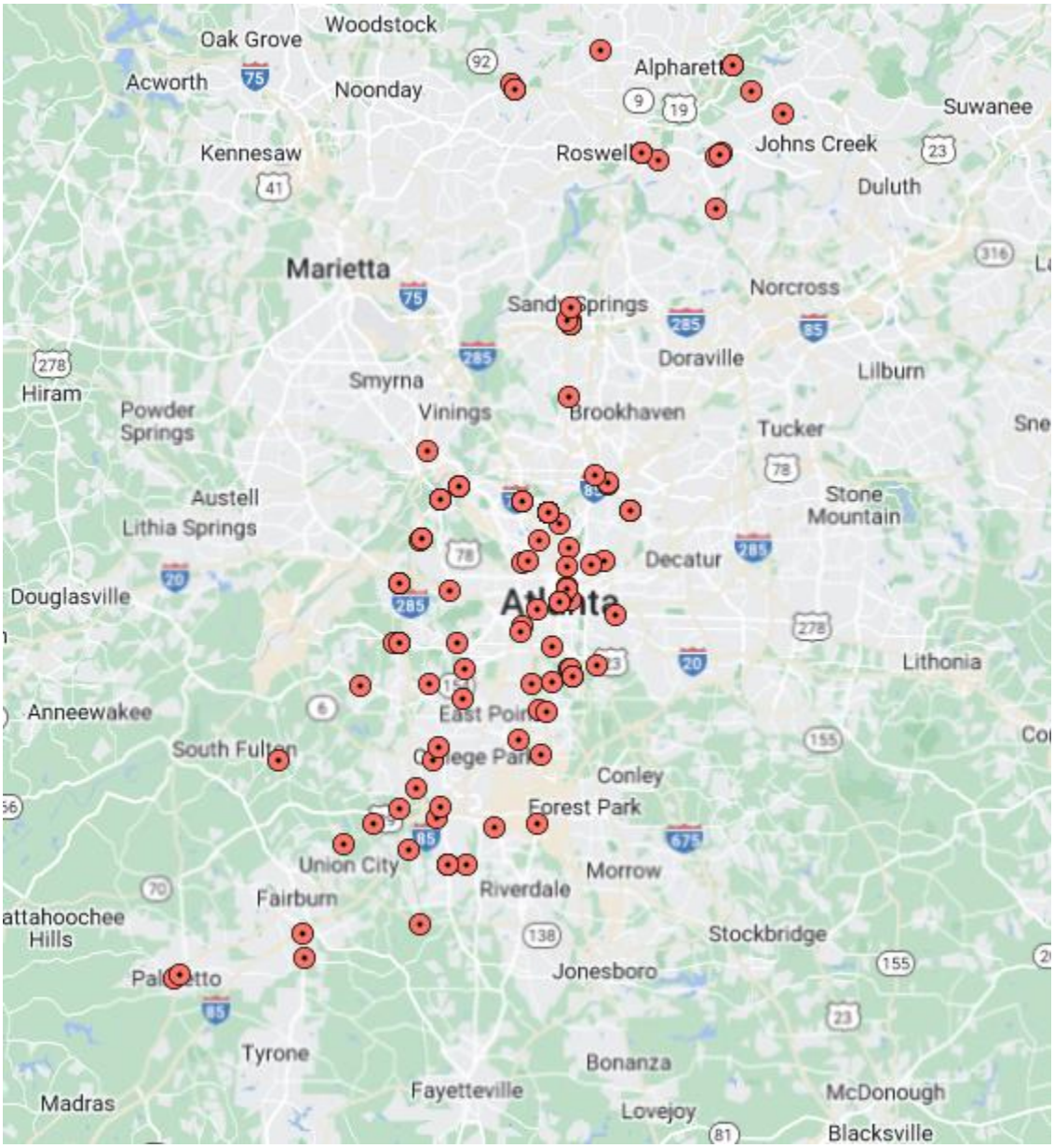


Figure 5.b: Customer view of a tobacco display in the interior of a pharmacy with no corrective statement present.

Figure 6: A map of the surveyed locations in Fulton County, Georgia. Some pins may represent multiple survey locations if they were within a mile of each other due to scale restrictions and mapping software.



Tobacco Industry Corrective Statement Assessment in Retail Settings

1. **Date of visit:** _____ **Start Time:** _____ **End Time:** _____

2. **Coder Name:** _____

3. **Store Name:** _____

__ 1 Yes, Store name matches assigned name

4. **Store Address:** _____

__ 1 Yes, Store address matches assigned address

5. **Can you survey this store?** (If not then select an option below and STOP.)

___ 1 Yes I can
___ 2 No, store does not exist
___ 3 No, store is closed
___ 4 No, membership or fee required to enter
___ 5 No, environment unsafe for me
___ 6 No, asked to leave before completing the survey
___ 7 No, other _____

Exterior (Obtain relevant photos of exterior if possible)

6. **Statement present?** _____ 1 Yes _____ 2 No

7. **Statement language?** _____ 1 English _____ 2 Spanish(don't abstract)

8. **English Statement preamble starts with?** _____1 Philip Morris _____ 2 R.J. Reynolds

9. **English Statement text** (check)

_____ 1 All cigarettes cause cancer…
_____ 2 Altria, R.J. Reynolds, Lorillard,…
_____ 3 Children exposed to secondhand smoke…
_____4 Cigarette companies control the impact…
_____ 5 Cigarette companies intentionally designed…
_____ 6 It's not easy to quit
_____ 7 "Low tar" and "light" cigarette smokers…
_____ 8 Many smokers switch to low tar and light…
_____ 9 More people die every year from smoking…
_____ 10 Smoking also causes reduced fertility…
_____ 11 Smoking causes heart disease…
_____ 12 Smoking is highly addictive…
_____ 13 Smoking kills on average 1,200…
_____ 14 Secondhand smoke causes lung cancer…
_____ 15 Secondhand smoke kills over 38,000…
_____ 16 There is no safe level of exposure…
_____ 17 When you smoke, the nicotine…

Location of Corrective Statement

10. Is statement clearly visible for consumer? _____ 1 Yes ____ 2 No
11. Is statement Defaced or Damaged (any part unreadable)? _____ 1 Yes ____ 2 No
12. Is it in the correct location (48" from main door and 48" from floor or for Kiosk store – near sales window)? _____ 1 Yes ____ 2 No

13. Which products are advertised outside the store (on windows/doors, building, sidewalk or elsewhere)?

a. Cigarettes - non-menthol	____ 1 Yes	____ 2 No
b. Cigarettes – menthol	____ 1 Yes	____ 2 No
c. Cigarillos/little cigars	____ 1 Yes	____ 2 No
d. Large Cigars	____ 1 Yes	____ 2 No
e. Chew, moist or dry snuff, dip or snus	____ 1 Yes	____ 2 No
f. E-cigarettes, vapes	____ 1 Yes	____ 2 No
g. Other Tobacco Product	____ 1 Yes	____ 2 No

INTERIOR OF STORE

14. **Store Type (check one)**

Convenience	_____ 1
Kiosk (customer can't enter or <325 sq feet)	_____2 (note: < 18x18)
Grocery/Supermarket	_____ 3
Walmart/Costco/Dollar Store	_____ 4
Beer/Wine/Liquor Store	_____5
Drug Store/Pharmacy	_____ 6
Tobacco/Vape Store	_____ 7
Other	_____ 8

FOR NON-KIOSK STORES

15. **Is there > 9-horizontal linear feet of Merchandizing Set space?** _____ 1 Yes _____ 2 No

16. **Number of English Corrective Signs?** ___ 0 None ___ 1 1 ____ 2 2 _____ 3 3 _____ 4 >3

16. **Spanish Statement present?** ___ 1 Yes ___ 2 No

(Note: if multiple English signs are present begin with the one closest to Cigarette Merchandizing Set)

SIGN #1: Sign Closest to Merchandizing Set

17. **English Statement Preamble starts with?** _____1 Philip Morris _____ 2 R.J. Reynolds

18. **English Statement text** (check one)

_____ 1 All cigarettes cause cancer…
_____ 2 Altria, R.J. Reynolds, Lorillard,…
_____ 3 Children exposed to secondhand smoke…
_____ 4 Cigarette companies control the impact…
_____ 5 Cigarette companies intentionally designed…
_____ 6 It's not easy to quit
_____ 7 "Low tar" and "light" cigarette smokers…
_____ 8 Many smokers switch to low tar and light…
_____ 9 More people die every year from smoking…
_____ 10 Smoking also causes reduced fertility…
_____ 11 Smoking causes heart disease…
_____ 12 Smoking is highly addictive…
_____ 13 Smoking kills on average 1,200…
_____ 14 Secondhand smoke causes lung cancer…
_____ 15 Secondhand smoke kills over 38,000…
_____ 16 There is no safe level of exposure…
_____ 17 When you smoke, the nicotine…

Location of English Corrective Statement

19. Is statement clearly visible for consumer? ____ 1 Yes ___ 2 No
20. Is statement Defaced or Damaged (any part unreadable)? ____ 1 Yes ___ 2 No
21. Statement Location?
    - _____ 1 **ABOVE** the Cigarette Merchandizing set (≤ 6" from top)
      if no, Could it have been placed here? 211 _____ 1 Yes _____ 2 No
    - _____ 2 **ABOVE** the Cigarette Merchandizing set (> 6" from the top)

if no, Could it have been placed here? 212 _____ 1 Yes _____ 2 No

_____ 3 **ON SIDE** of Cigarette Merchandizing set (≤ 6" from side)

if no, Could it have been placed here? 213 _____ 1 Yes _____ 2 No

_____ 4 **ON SIDE** of Cigarette Merchandizing set (> 6" from side)

if no, Could it have been placed here? 214 _____ 1 Yes _____ 2 No

_____ 5 **ON WALL in Front of Recessed** Main Merchandizing set (≥ 48" from floor)

if no, Could it have been placed here? 215 _____ 1 Yes _____ 2 No

21a. **IF 1-5,** Is Statement in **same plane** as Merchandizing set? _____ 1 Same Plane ____ 2 Off-Set

_____ 6 **Perpendicular** to Cigarette Merchandizing set (≥ 48" from floor)

_____ 7 **≤ 48" from Main Entrance** and ≥48" from Floor and visible as you enter

_____ 8 **≤ 48" from Cash Register** and ≥48" from Floor and visible as approach/stand at CR

_____ 9 **Other** location

SIGN #2: Select the Sign Closest to Sign #1

22. **English Statement Preamble starts with?** _____1 Philip Morris _____ 2 R.J. Reynolds

23. **English Statement text** (check one)

_____ 1 All cigarettes cause cancer…

_____ 2 Altria, R.J. Reynolds, Lorillard,…

_____ 3 Children exposed to secondhand smoke…

_____ 4 Cigarette companies control the impact…

_____ 5 Cigarette companies intentionally designed…

_____ 6 It's not easy to quit

_____ 7 "Low tar" and "light" cigarette smokers…

_____ 8 Many smokers switch to low tar and light…

_____ 9 More people die every year from smoking…

_____ 10 Smoking also causes reduced fertility…

_____ 11 Smoking causes heart disease…

_____ 12 Smoking is highly addictive…

_____ 13 Smoking kills on average 1,200…

_____ 14 Secondhand smoke causes lung cancer…

_____ 15 Secondhand smoke kills over 38,000…

_____ 16 There is no safe level of exposure…

_____ 17 When you smoke, the nicotine…

Location of English Corrective Statement

24. Is statement clearly visible for consumer? ____ 1 Yes ___ 2 No

25. Is statement Defaced or Damaged (any part unreadable)? ____ 1 Yes ___ 2 No

26. Statement Location?

_____ 1 **ABOVE** the Cigarette Merchandizing set (≤ 6" from top)

_____ 2 **ABOVE** the Cigarette Merchandizing set (> 6" from the top)

_____ 3 **ON SIDE** of Cigarette Merchandizing set (≤ 6" from side)

_____ 4 **ON SIDE** of Cigarette Merchandizing set (> 6" from side)

_____ 5 **ON WALL in Front of Recessed** Main Merchandizing set (≥ 48" from floor)

26a. **IF 1-5,** Is Statement in **same plane** as Merchandizing set? _____ 1 Same Plane ____ 2 Off-Set

_____ 6 **Perpendicular** to Cigarette Merchandizing set (≥ 48" from floor)

_____ 7 **≤ 48" from Main Entrance** and ≥48" from Floor and visible as you enter

_____ 8 **≤ 48" from Cash Register** and ≥48" from Floor and visible as approach/stand at CR

_____ 9 **Other** location

SIGN #3: Select the Sign Farthest from Sign #1

27. **English Statement Preamble starts with?** _____1 Philip Morris _____ 2 R.J. Reynolds

28. **English Statement text** (check one)

_____ 1 All cigarettes cause cancer…
_____ 2 Altria, R.J. Reynolds, Lorillard,…
_____ 3 Children exposed to secondhand smoke…
_____ 4 Cigarette companies control the impact…
_____ 5 Cigarette companies intentionally designed…
_____ 6 It's not easy to quit
_____ 7 "Low tar" and "light" cigarette smokers…
_____ 8 Many smokers switch to low tar and light…
_____ 9 More people die every year from smoking…
_____ 10 Smoking also causes reduced fertility…
_____ 11 Smoking causes heart disease…
_____ 12 Smoking is highly addictive…
_____ 13 Smoking kills on average 1,200…
_____ 14 Secondhand smoke causes lung cancer…
_____ 15 Secondhand smoke kills over 38,000…
_____ 16 There is no safe level of exposure…
_____ 17 When you smoke, the nicotine…

Location of English Corrective Statement

29. Is statement clearly visible for consumer? ____ 1 Yes ___ 2 No
30. Is statement Defaced or Damaged (any part unreadable)? ____ 1 Yes ___ 2 No
31. Statement Location?

_____ 1 **ABOVE** the Cigarette Merchandizing set (≤ 6" from top)
_____ 2 **ABOVE** the Cigarette Merchandizing set (> 6" from the top)
_____ 3 **ON SIDE** of Cigarette Merchandizing set (≤ 6" from side)
_____ 4 **ON SIDE** of Cigarette Merchandizing set (> 6" from side)
_____ 5 **ON WALL in Front of Recessed** Main Merchandizing set (≥ 48" from floor)

31a. **IF 1-5,** Is Statement in **same plane** as Merchandizing set? _____ 1 Same Plane ____ 2 Off-Set

_____ 6 **Perpendicular** to Cigarette Merchandizing set (≥ 48" from floor)
_____ 7 **≤ 48" from Main Entrance** and ≥48" from Floor and visible as you enter
_____ 8 **≤ 48" from Cash Register** and ≥48" from Floor and visible as approach/stand at CR
_____ 9 **Other** location

FLAVORED PRODUCTS FOR SALE

32. Flavored Cigarillos/little cigars for sale? ____ 1 Yes ___ 2 No
33. Flavored Large cigars for sale? ____ 1 Yes ___ 2 No
34. Flavored Chew, moist/dry snuff, dip or snus for sale? ____ 1 Yes ___ 2 No
35. Flavored E-cigarettes/vapes for sale? ____ 1 Yes ___ 2 No

36. **Which products are advertised inside the store?**

a. Cigarettes - non-menthol	____ 1 Yes	____ 2 No
b. Cigarettes – menthol	____ 1 Yes	____ 2 No
c. Cigarillos/little cigars	____ 1 Yes	____ 2 No
d. Large Cigars	____ 1 Yes	____ 2 No
e. Chew, moist or dry snuff, dip or snus	____ 1 Yes	____ 2 No
f. E-cigarettes, vapes	____ 1 Yes	____ 2 No
g. Other Tobacco Product	____ 1 Yes	____ 2 No