

**A VIEW FROM THE OTHER SIDE:
ENGAGING RETAILERS IN TOBACCO POINT-OF-SALE REFORM IN
ALLEGHENY COUNTY**

by

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ABSTRACT

Tobacco use disproportionately affects African Americans in Allegheny County, Pennsylvania compared to both the national rate of African Americans and that of Whites in Allegheny County, with many implications for adverse chronic disease health outcomes. Tobacco industry targeted marketing practices have historically resulted in legislation that shifted tobacco marketing to retail stores at the point-of-sale, where storeowners are uniquely situated as stakeholders in the retail environment and the community. This original investigation analyzed interviews with storeowners (n=6) of different types of corner stores in Allegheny County to inform and recommend future programming and policy approaches for the Allegheny County Health Department (ACHD) and partners that reduce tobacco exposure and marketing in the community. The findings indicated that storeowners in the sample determined their product mix and the inclusion or exclusion of tobacco products based on a dynamic interaction between business planning, customer input, and individual decision-making processes. Storeowners highlighted that many opportunities exist to reform the corner stores in Allegheny County through partnerships, store façade and interior improvements, incentives, and community engagement. An integration of these approaches can act to provide assistance such as improvements to the product mix, produce sourcing, and targeted marketing and advertising outreach to increase foot traffic through stores, all while engaging storeowners in the reform

process. Tobacco control programs and policies that aim to reduce tobacco exposure in our communities must acknowledge that the built environment has an enormous impact on public health, and improvements have the ability to contribute to more equitable opportunities to be healthy.

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1.0 INTRODUCTION

Public health officials face numerous challenges in tobacco prevention and control activities, despite the extensive social, health, and economic consequences of tobacco use in the United States (U.S). Cigarette smoking, one form of tobacco use, is the leading cause of preventable disease and death in the U.S., and accounts for more than 480,000 deaths every year, or one of every five deaths.¹ If nobody smoked cigarettes, then one out of every three cancer deaths would not occur.¹ Smoking diminishes overall health and harms nearly every organ of the body, adversely affecting the health of smokers in general.²

Despite the extensive documentation of harmful health impacts, tobacco products and exposure to tobacco marketing is ubiquitous in retail stores across the United States. The tobacco industry's manipulation of the retail store differentially structures the built environment. The built environment is where a person lives, works, and plays, encompassing all buildings, spaces and products that are created or modified by people in the surrounding area.³ The built environment is a social determinant of health that illuminates the impact that differential exposure to tobacco retail stores can have by increasing tobacco consumption, discouraging quitting, and encouraging relapse.^{4,5}

Tobacco industry marketing promotes smoking experimentation and discourages quitting by maximizing marketing opportunities and taking advantage of unregulated channels, such as sponsorship, brand stretching, and point-of-sale advertising. ⁶ Point of sale (POS) marketing

targets customers at the place where they buy products with the intent to draw customers' attention to the advertisement when they are in the mood to buy.⁷ As shown in Appendix A, tobacco products are often carefully placed behind the counter or next to other advertisements to catch customers' eyes. POS advertising has become the established route for tobacco companies to target consumers.⁷ The POS is the primary channel of tobacco exposure, as the tobacco industry uses retail stores to connect with consumers and present environmental cues to smoke.⁸

The POS is a significantly valuable target for prevention.⁹ Higher tobacco retailer density is believed to promote smoking by increasing environmental cues to smoke and making smoking more accessible.⁶ Advertising at the POS is structured to create a carefully-crafted choice architecture in retail stores that nudges customers to purchase tobacco, a concept rooted in behavioral economics that is at the core of why POS advertising is successful.¹⁰ Tobacco is an eye-catching item at the POS,¹¹ marketed through product, price, promotion, and placement.⁶ Existing evidence finds a positive association between exposure to tobacco promotion at the POS and smoking.⁹ Interventions targeted at retail stores are one point of prevention that can decrease retail access to tobacco or reduce tobacco advertising at the point of sale.¹²

The following original investigation analyzes interviews with storeowners in Allegheny County about the inclusion or exclusion of tobacco products and advertising in their retail space to inform and recommend future programming and policy approaches for ACHD and partners. The Allegheny County Health Department is currently in the process of quantifying tobacco exposure in Allegheny County by assessing retail stores at the POS using the Standardized Tobacco Assessment for Retail Stores (STARS) assessment tool, provided by Counter Tobacco. Therefore, there is not yet quantifiable data regarding tobacco exposure in the county, and we will review the literature findings in support of this study. This research study is situated as an

early initiative in POS tobacco control work for ACHD to engage stakeholders and include their perspective on selling and not selling tobacco moving forward. The research question is: *what are the opportunities and barriers to reducing tobacco exposure and marketing in Allegheny County community retail stores?* The primary objectives of this research are to 1) explore the historical trauma of cigarette marketing practices, 2) explore the POS as a target of smoking prevention, and 3) examine the retail space as a point of intervention in Allegheny County.

2.0 BACKGROUND

2.1 WHAT IS THE POINT-OF-SALE?

The retail environment where tobacco products are marketed and advertised is called the point-of-sale (POS). The mechanisms of marketing are 1) promotion, 2) packaging, 3) price, and 4) place. Henriksen (2012) reviewed the four elements of POS advertising and the ways that the tobacco industry capitalizes on them. Promotion refers to direct advertising such broadcast/print media, billboards or outdoor ads, and point of sale, and indirect advertising such as branded merchandise, sponsorships, or giving out tobacco products.⁶ Promotional materials are often placed in areas of “friendly familiarity” in retail stores, including near staple food items, near candy, behind the counter, and on windows/doors.¹³ Packaging refers to attributes of branding and design that create product presentation, including things like logo, descriptors, colors, size, and shape. Color variation can be manipulated to signify lower strength, and deceptive words such as ‘smooth’ are often used as indicators of reduced risk, subverting the prohibition of the misleading words ‘light’, ‘mild’ and ‘low tar.’^{14,15} Price marketing efforts include strategies that reduce prices at the point of sale to draw in the consumer. Lastly, the marketing element of place refers to the channels that tobacco companies use to distribute their products to the public. The primary site of product availability is through retailers.⁶

Exposure to POS marketing and promotions has been shown to encourage smoking uptake, specifically among youth who are particularly vulnerable to tobacco advertising. POS displays act as cues to purchase tobacco, where between 10-25% of smokers report in-store exposure stimulates impulse purchase of cigarettes.¹⁶ In Allegheny County, 40% of 18-19 year olds have tried cigarettes or other tobacco products.¹⁷ The impact of displays as the main marketing channel is of utmost importance because youth are more susceptible to impulse and attraction to displays.¹⁸ A wealth of cross-sectional evidence supports that exposure to tobacco displays at the POS for adolescents and young adults is associated with susceptibility to smoking, experimenting with smoking, and current smoking.¹ A study by Paynter et al. (2009) of 14-15 year olds in New Zealand found that a greater frequency of store visits related to youth being 1.8 times more susceptible (OR=1.8) to smoking and 2.7 times more likely (OR=2.7) to experiment with smoking.¹¹

Tobacco advertising at the POS has been shown to prompt cravings, promote impulse purchases, and discourage quitting, especially among those sensitive to external cues.⁶ The widespread exposure to tobacco advertising at almost all corner stores distorts perceptions about the availability, use, and popularity of tobacco use.¹¹

2.2 HEALTH EQUITY CONSIDERATIONS FOR MARKETING

There are numerous health equity considerations to examine when looking at differential exposure to tobacco product marketing. The current state of POS policy exists because of an attempt to address the tobacco industry's historically disparate targeted marketing practices. The tobacco industry has systematically targeted population subgroups, and the literature finds there

are neighborhood disparities in point-of-sale tobacco marketing.¹⁹ Neighborhoods of lower-income have more tobacco marketing and neighborhoods with more Black residents have more stimuli to start and continue smoking.¹⁹ The tobacco industry has historically structured its marketing to target demographic groups by race, ethnicity, income, mental health status, sexual orientation, and gender.¹⁹ These marketing practices and retail exposures are pervasive environmental cues that contribute to the socioeconomic and racial/ethnic disparities in tobacco use patterns.

The mortality rate for lung cancer and oral cancer for White men was higher than Black men prior to the early 1960s. However, beginning in the 1970s, the age-adjusted death rate for lung cancer for Black men surpassed the rate for White men, and the age-adjusted death rate for oral cancer was twice as high for Black men than White men.²⁰ African Americans are more likely than Whites to die from smoking-related diseases.²¹ These findings suggest that while unequal access to health services and unhealthy habits on an individual level are important determinants of health, the geographically specific and intentionally-disproportionate levels of aggressive tobacco marketing in majority Black neighborhoods is one key environmental influence on the social determinants of health for Black residents. Archival analysis and current POS research validates that environmental cues to begin or continue smoking are more common in neighborhoods with more Black residents, providing a point of intervention at a community and policy level.¹⁹

Current health disparities related to smoking tobacco were shaped by the tobacco industry targeting specific demographic communities.²² Targeted marketing practices have contributed to social and environmental injustices. The National Conference on Tobacco and Health Disparities convened in 2002, and defined tobacco-related health disparities as:

“Differences in the patterns, prevention, and treatment of tobacco use; the risk, incidence, morbidity, mortality, and burden of tobacco-related illness that exist among specific population groups in the United States; and related differences in capacity and infrastructure, access to resources, and environmental tobacco smoke exposure” (pp. 211).²³

The tobacco industry’s activities in “menthol wars” have contributed to the racialized geography of today’s Black-White smoking disparity and tobacco-related health inequities.²⁰ Yerger et al. (2007) analyzed previously secret internal documents from the tobacco industry to outline their corporate influence on inner city health.²⁰ The documents, made public under the State of Minnesota versus Philip Morris, Inc. court case, explain the aggressive micromarketing of menthol products in inner city African American communities by the company.²⁴ The term *inner city* was used by the companies to refer to “the usually older and more densely populated central section of a city with large ethnic populations (mainly Black and Spanish).”²⁵ Menthol products are especially harmful because they are associated with both lower cessation rates and increased nicotine dependence.²⁶ A cross-sectional study by Muilenberg & Legge (2008) of Black secondary school students in a southeastern city found that though the youth smoke at lower rates than Whites, they accelerate cigarette consumption when the brand they use contains menthol.²⁷

Tobacco companies collected data on the smoking characteristics of Black people using the “Integrated Retail Demographic Database Micro-Marketing Tool,” a tool that “incorporated store-area data on smokers, census demographics, periodical subscriptions, lifestyles, and retail pricing data,” finding they were “different from those of whites” and required “a different marketing strategy for black consumers.”²⁸ What followed included special marketing programs

where tobacco companies handed out menthol cigarettes in any way possible, from mobile vans to staff on foot. Kool and Newport competed in “menthol wars”: targeted marketing efforts in geographical areas with large concentrations of African Americans during the mid-1970s. A cross-sectional study by Soulakova (2017) found that approximately 80% of black smokers currently smoke menthol cigarettes, whereas only 24% of White smokers smoke menthol cigarettes.²⁹ There is also a disproportionate presence of menthol marketing in socioeconomically disadvantaged neighborhoods.¹⁹

Menthol is the only cigarette additive that the tobacco industry legally advertises to consumers at this time, often as “refreshing” and “cool” based on its physiological effects as a cooling agent and an anti-irritant.³⁰ Historically, tobacco industry marketing practices included presenting menthol cigarettes as medicinal and less harmful, and even framing them as a more healthful product than non-menthol cigarettes.²⁶ In fact, there is evidence that menthol stimulates cold receptors, resulting in coolness in the mouth, pharynx, and lungs, which can reduce airway irritation and lead to deeper inhalation of smoke. More research is needed about the impact of increased inhalation on the passage of nicotine and cancer-causing agents across mucus membranes, and the resultant health outcomes.³⁰

Lee et al. (2015) systematically reviewed the literature for evidence of disparities in marketing by tobacco retailers based on sociodemographic neighborhood characteristics, validating that marketing practices target demographic groups defined by race.¹⁹ They found that low-income neighborhoods had more tobacco marketing, and neighborhoods with more Black residents experienced more menthol marketing. They note that while the tobacco industry’s use of targeted marketing is a big factor, there is room to intervene in neighborhood characteristics

such as “ordinances limiting marketing in retailer windows or other licensing, zoning, or minimum price policies.”¹⁹

2.3 HISTORY OF TOBACCO POLICY

The POS has become the largest advertising channel for the tobacco industry since the 1998 Master Settlement Agreement (MSA) reshaped the allocation of funds. The MSA is a legal settlement reached between the five largest tobacco companies in the U.S. and the Settling States concerning the targeted marketing and promotion of tobacco products. The MSA restricted most of the avenues of sale and marketing of cigarettes used by the main tobacco companies, such as billboards, tobacco transit ads branded merchandise, use of cartoon characters, free tobacco product samples, and brand name sponsorships.^{12,31} One main focus of the MSA litigation was forbidding direct and indirect targeting of youth. The MSA required the tobacco companies signing to pay the Settling States annual payments in perpetuity at approximately \$10 billion per year as a compensation for taxpayer money spent on tobacco-related healthcare costs. Additionally, the MSA created a tobacco prevention foundation called the American Legacy Foundation, with a focus on preventing smoking and encouraging cessation, from which many tobacco prevention initiatives have been developed such as “The Truth” campaign.³¹

While the MSA restricted many avenues of marketing, the settlement had little restrictions for marketing promotion and advertising at the POS in retail stores. The tobacco industry allocated funds to promotion expenditures at the POS, where folks are prompted to purchase products. By 2005, 90% of tobacco marketing money was spent in the retail environment. By 2008, the industry doubled the money spent on cigarette price discounting,

accounting for 84% of industry spending in that year.¹² In 2015, the tobacco industry spent \$8.9 billion in the U.S. on marketing cigarettes and smokeless tobacco products, translating to \$24 million each day or \$1 million every hour.³²

Additional legislation was passed with the 2009 Family Smoking Prevention and Tobacco Control Act, often called the Tobacco Control Act, that provided the U.S. Food and Drug Administration (FDA) the power to regulate the tobacco industry. The Tobacco Control Act allows the FDA to restrict aspects of tobacco marketing, advertising, and promotion specifically banning sales to minors, vending machine sales (except in adult-only facilities), and the sale of packages of fewer than 20 cigarettes, and strengthening graphic warning labels on packaging.³³ While the Tobacco Control Act of 2009 gave the FDA unprecedented regulatory authority to protect the public's health, the majority of the regulatory authority to engage in tobacco control policy now exists within state and local governments.

2.4 POINT-OF-SALE STRATEGIES FOR TOBACCO CONTROL

There are numerous policy options for regulation at the POS, with an array of strategies that can act to decrease tobacco product exposure in neighborhoods or communities. There are now unprecedented opportunities to shape the environment of smokers and nonsmokers in order to prevent smoking initiation, facilitate cessation, and protect nonsmokers from secondhand smoke.³⁴ The Center for Public Health Systems Science at Washington University in St. Louis produced a tobacco control guide with POS strategies that are relegated to the state or local level of tobacco control programs and have shown strong or promising evidence of effectiveness. The focus of these strategies is the retail environment due to the prominence of the tobacco industry's

marketing in these settings. The tobacco control guide states the primary point-of-sale strategies include: reducing (or restricting) the number, location, density, and types of tobacco retail outlets; increasing the cost of tobacco products through nontax approaches; implementing prevention and cessation messaging; restricting point-of-sale advertising; restricting product placement; and other point-of-sale strategies such as reforming the corner store.¹² Calo (2013) reviewed recent literature and discussed key tobacco control strategies that have proven effective. They found productive mechanisms to influence the built environment regardless of an individual's smoking status through three key tobacco control strategies: regulations on sales and marketing of tobacco products, taxation, and smoke-free legislation.³⁴

The Allegheny County Health Department conducted the following research based on the strategy to reduce tobacco exposure at the POS by reforming the corner store, a community-based approach to restructuring the built environment. Due to the nature of this original investigation, reforming the corner store is a key POS strategy to examine. Reforming the corner store has the ability to reduce the impact of POS advertising, particularly when considering targeted marketing practices and tobacco-related health disparities by socioeconomic status and race/ethnicity. This strategy requires acknowledging the role of storeowners as an integral stakeholder in addressing exposure to tobacco marketing. Working with retailers to understand what motivates them to refuse to sell or abandon the sale of tobacco products guides policy and program development.⁶

2.5 BEHAVIORAL ECONOMICS APPLIED THEORY

Tobacco advertising at the POS is a carefully-structured built environment of decision making. Because of the unique interaction of the built environment with consumer choice, this analysis will be grounded in behavioral economics. The field of behavioral economics focuses on the ways in which choice is influenced by factors such as impulsiveness, limited willpower, social norms, and the context in which choices are made.¹⁰ The two constructs of behavioral economics are choice architecture and nudges. Choice architecture is the environment in which choices are made. ‘Nudge’ units are any element of the choice architecture that nudge people’s behavior in a predictable way and does not forbid options or change economic incentives.³⁵

Choice architecture at the POS is formulated by nudges from the tobacco industry encouraging consumers toward unhealthy behavior. The health effects of tobacco are widely known, but due to tobacco marketing and exposure in the retail store, customers’ perceptions of social norms around tobacco use are negatively influenced. The industry exploits customers’ impulsiveness and depleted willpower in the retail environment by controlling the choice architecture at the point of sale.¹⁰ However, the unique element of the retail store is that individual storeowners are the choice architects of their own store.³⁶ Placing tobacco products behind the counter at check-out, and advertising at eye level or next to common items are two examples of nudges to purchase tobacco products. Considering the ways in which the retail store is crafted is a vital element to understand when interviewing storeowners. In order to intervene in exposure, we must first understand the ways in which it is crafted, and the autonomy storeowners are given in doing so.

2.6 THE RESEARCH SETTING

2.6.1 Tobacco Use in Allegheny County

Allegheny County is a county in Southwestern Pennsylvania with a population of approximately 1,223,048 in 2017.³⁷ According to United States Census Bureau 2016 estimates, the racial and ethnic composition in Allegheny County was 80.5% White, 13.4% Black or African American, 3.7% Asian, 2.0% Hispanic or Latino, and 0.2% American Indian and Alaskan Native, with approximately 2.1% of residents identifying as “two or more races.”³⁷ Pittsburgh is the largest city in Allegheny County, with a population of 303,625 in 2016, classifying it as a second-class city.³⁸

Tobacco use in Allegheny County is currently on the decline, as measured by the Allegheny County Health Survey (ACHS) Behavioral Risk Factor Surveillance System (BRFSS). The rate of current cigarette smokers fell from 23% in 2010 to 19% in 2015-16.^{39,40} The overall rate of smoking in Allegheny County is comparative to the state and national rates. In Pennsylvania, 18.0% of adults were current smokers in 2016; however, nationally, 16.4% of adults were current smokers at this time.⁴¹

2.6.2 Tobacco Use Disparities in Allegheny County

There are stark health disparities in current smokers by race/ethnicity in Allegheny County. The Office of Management and Budget defines Black or African American as “a person having origins in any of the black racial groups of Africa.”⁴² Significantly more Black adults reported they were current smokers than white adults in 2015-16, at 30% and 17% respectively.³⁹

The disparity persists at the state level, as 24.1% of Black adults in Pennsylvania are current smokers compared to 17.2% of White adults. The Black-White smoking disparity is not present at the national level, where 17.4% of White adults are current smokers compared to 18.4% of Black adults.⁴¹ Appendix B reflects the decrease in current smokers from 2010 to 2016, and the persistent health disparity in Allegheny County.

In addition to the Black-White smoking disparity, there is a stark disparity by socioeconomic status (SES). The 2015-16 Allegheny County Health Survey found that the proportion of adults with a college degree who were current smokers, 9%, was significantly lower than the proportion of adults with less education who were current smokers. Of those with a high school education, 27% were current smokers, and 44% of those with less than a high school education were current smokers.³⁹ The survey also found that “the percentage of current smokers decreased as household income increased.”³⁹ National smoking data shows a stark increase in smoking as income level decreases, rising to 32.2% in households earning less than \$20,000 per year and dropping to 12.1% in households earning more than \$100,000 per year.⁴³ The Truth Initiative reports that nearly 3 in 4 smokers are from lower-income communities, a smoking disparity crafted by tobacco company marketing practices through the years.⁴⁴ In fact, smoking prevalence in 1940 was lowest among those with less than a high school degree, and smoking was more prevalent among those with more education.⁴⁵

2.6.3 Retail Store Interventions in Allegheny County

There are a couple of healthy store initiatives ongoing in Allegheny County that are important to understand the landscape of healthy store programming in the community. Just Harvest’s Fresh Corners Program was launched in 2015 in partnership with the Allegheny

County Health Department as a healthy corner store program that works to improve access to fresh foods in underserved neighborhoods. The program began with neighborhood assessments and stakeholder meetings to identify storeowners and communities prepared for corner store reform. Just Harvest provides storeowners with information and materials through the program, creating a partnership that breaks down barriers to access nutritious and affordable foods, ultimately reforming the corner store as a part of a broader effort to create healthier communities. There are currently nine Fresh Corners stores involved in the program⁴⁶. As a valuable partner outside of tobacco control, Just Harvest is a nonprofit that serves the Greater Pittsburgh community with a mission to *“educate, empower and mobilize people to eliminate hunger, poverty, and economic injustice in our communities by influencing public policy, engaging in advocacy, and connecting people to public benefits.”*⁴⁷

Fresh Corners is a program that developed out of the Allegheny County Health Department’s Live Well Allegheny campaign. Live Well Allegheny (LWA) is a chronic disease prevention program that brings together stakeholders to improve the health and well-being of county residents. The campaign focuses on collective action by promoting increased physical activity, improving mental health, eating healthy, decreasing cigarette smoking, and creating proactivity in managing health. Stakeholders of LWA include a partnership of municipalities, school districts, government agencies, academia, community-based organizations, and the private sector. LWA has primarily focused on physical activity and healthy eating since the launch of the campaign in 2014. LWA participants include communities, schools, restaurants, and workplaces. However, residents of Allegheny County are exposed to tobacco advertising every time they enter or walk by one of the 1,908 licensed retailers in Allegheny County.⁴⁸ The

Live Well Allegheny Campaign poses a unique opportunity to engage storeowners as the business owners of retail stores frequented by residents.

Another healthy corner store initiative we connected with to begin this research is the Tobacco Free Allegheny Healthy Corner Store Initiative. The Healthy Corner Store Initiative is an example of tobacco control working within healthy food to create a healthy retail environment. The program is funded by the Pennsylvania Department of Health to address the need for access to healthier foods in local stores, and currently has fourteen corner stores in the program. Tobacco Free Allegheny provides incentives, training, technical support, and business tools to storeowners as part of a four-phase business model.⁴⁹

There are a number of program initiatives and cross-sectional collaborations to capitalize on in an effort to improve the retail environment of corner stores in Allegheny County. In speaking with storeowners and managers of local retail stores, the aim of this investigation is to inform future policy recommendations and program development to reduce exposure to tobacco advertising at the POS. Storeowners are uniquely situated within communities with control over the tobacco industry's main channel of advertising. The research engaged them in interviews to understand their role as small business owners, and to work toward a healthier community.

3.0 METHODS

3.1 STUDY DESIGN

The study was an original investigation qualitative assessment of retail stores in Allegheny County, through key informant interviews with storeowners. The study population consisted of retail stores in Allegheny County. Key informant interviews with storeowners were chosen as the qualitative method because storeowners are busy, work many hours, and are therefore a difficult-to-reach population. Key informant interviews acknowledged the unique situation of storeowners as the main stakeholders of the retail environment and the community, and provide rich insight into their perceptions and motivations.⁵⁰ The study was exempt from the IRB. Storeowners consented to be interviewed and recorded and were asked open-ended questions about their store to which they volunteered their own sentiments.

The purpose of the interviews with storeowners was to inform and recommend future programming and policy approaches for ACHD that encourage and support a healthy, tobacco-free retail space. The research question was: *what are the opportunities and barriers to reducing tobacco exposure and marketing in Allegheny County community retail stores?*

3.2 SAMPLE

In summer and fall of 2017, six in-depth interviews were conducted with a purposive sample of retail storeowners in Allegheny County. Key informant interviews were with owners and managers of three types of stores, as defined in Table 1 below.

Table 1. Types of Corner Stores Interviewed

Store code	Store type	Store definition
HNT	Healthy, non-tobacco	Stores that have a focus on providing healthy products or are involved in a healthy corner store initiative, and they do not sell tobacco products in their store.
HS	Healthy, sells tobacco	Stores that have a focus on providing healthy products or are involved in one of the healthy corner store initiatives, but still sell tobacco in the store
S	Sells tobacco	Stores that are not involved in any healthy corner store initiatives and sell tobacco products.

These three types of stores were initially selected through discussions with Live Well Allegheny (LWA) staff, Tobacco Free Allegheny’s (TFA) Fresh Corner Store Initiative, and a former staff member of Just Harvest’s Fresh Corners program who had formed trusted relationships with storeowners. A purposive sample was selected to interview chosen representatives of different types of stores in order to gain a more complete understanding of stores that sell tobacco and stores that voluntarily exclude tobacco sales, as well exist on a spectrum of healthy store initiatives. The stores were selected based on partner relationships to better facilitate entrée into the interview. After completion of these retail interviews, snowball sampling identified additional corner stores near these stores or brought up by the storeowners in

the interviews. Storeowners at six stores were interviewed in total, and the stores remained anonymous in the findings. The only relevant information about the store was type of store, but for readability fictionalized names were included with the corresponding data by store and type.

The stores correspond to store type as follows:

Table 2. Corner Store by Fictional Name and Type of Store

Store name (Fictional)	Type of store
43 rd Avenue Market	HNT*
Dynamite Market	HNT*
Family Baker's Store	HNT*
Family Market	HS**
NY Market	HS**
Local Grocery	S***

Healthy, non-tobacco, **Healthy, sells tobacco, *Sells tobacco*

3.3 DATA COLLECTION

All interviews were conducted by an individual with tobacco control experience and an intern note-taker. Interview questions included: the makeup of the store’s customer base; what role the store serves within the greater community or neighborhood; whether or not the store sells tobacco products and what role the agreements play in advertising; how the storeowner chooses a product mix and stocks products considering revenue; and barriers, opportunities, and recommendations for reducing tobacco sales and/or becoming a healthier retailer. The open-ended interview guide was developed with assistance from the University of California, Davis Tobacco Control Evaluation Center guide for conducting interview with retailers.⁵¹ Interview questions were adapted and tailored from the tool based on suggested questions and interview approaches. Additionally, partners reviewed the interview questions and edits were made based

on feedback for alternate wordings and added questions. In-depth notes were taken about the store environment and during the interview responses. Interviews were tape-recorded and transcribed verbatim.

3.4 ANALYSIS

Coding storeowner's interviews was an iterative process, creating a codebook from emerging codes, and organizing codes into themes and subthemes. Interviews were transcribed then coded in two rounds to identify emerging themes. The analysis process and documentation maintained at least three standards of rigor for qualitative analysis, as presented by Ulin, Robinson, & Tolley (2005). The findings presented are grounded in narrative and they show a logical relationship to each other, lending *credibility* to the findings and confidence that they are accurate in context. The data are *dependable* because the data collection process was consistent and carried out with consistent methodology in each interview with the same interview team present. The interview questions were adapted from a retailer interview tool to minimize the impact of the researchers assumptions and biases in data collection, and coding in analysis was completed based on line-by-line emerging codes to strengthen *confirmability* and ensure "the data reflect as accurately as possible the participants' perspectives and experiences."⁵⁰ Findings are presented by theme with representative quotes for each subtheme in a table, following a summary narrative to reflect the participants' perspectives. The analysis of findings was grounded in behavioral economics, and the role of choice architecture and nudges at the point of sale.

4.0 FINDINGS

In the interviews, storeowners emphasized a dynamic relationship between business planning and management, decision making processes, and interactions with customers and the community in creating their corner stores. The following findings present narrative for fifteen themes that emerged from the data across six main sections, with tables for each theme segmented into subthemes with representative quotes from the data.

The first section, Business Planning and Management, presents findings in the themes of *business planning and management* and *store evolution since opening*. Following this is a section regarding the storeowner's Decision to Include or Not Include Tobacco Products in the Corner Store, with the themes *individual storeowner culture and values* and *selling/not selling tobacco*. The next section is Product Mix: Tobacco, Produce, and Specialty products explained by the themes *product mix*, *logistics of selling tobacco*, and *carrying and managing produce*. Subsequently, the paper presents the section Customers and the Community, and the emerged themes of *customer base*, *foot traffic into the store*, *community capacity/role of the store*, and *community input*. The next section is Marketing and Advertising in the store with the theme *marketing and advertising in the store*. The final section is Barriers, Opportunities, and Recommendations., detailing the emerged themes of *barriers to be/become a healthy, nontobacco store*; *opportunities to reform the corner store*; and *recommendations to reform the corner store*.

4.1 BUSINESS PLANNING AND MANAGEMENT

The stores that do not sell tobacco emphasized business planning and management as the key to making up for potential revenue loss. The business planning process was a major theme that emerged across the three tobacco-less stores, and even in the stores that do sell tobacco. The subthemes that made up business planning and management included *revenue from sales*, *higher price margin products*, *lower price margin products*, *business planning before opening*, *product pricing*, and *product sales*. Business planning and management made up the work that the storeowner did to create the store and make money, while pricing products correctly, to keep the store open and running. Price margin is the difference between the selling price of a product and the cost paid to obtain the product divided by the selling price.

Business planning before opening was an integral subtheme that emerged within stores that did not sell tobacco. When asked about making a choice with their store to sell healthy items and not sell tobacco, the storeowner of 43rd Avenue Market spoke of how difficult it was to find business planning and projection planning models for a store that does not sell tobacco or lottery or include that in the revenue [see Table 3, Subtheme A]. This was not a perspective that arose for the three stores that do sell tobacco. Another storeowner that does not sell tobacco mentioned that if stores were to voluntarily discontinue tobacco sales, they could expand their market model to include Supplemental Nutrition Assistance Benefits (SNAP) Electronic Benefits Transfer (EBT) customers and be an authorized SNAP retailer.

Storeowners were quite candid about their revenue drivers in response to a question about their main *revenue from sales*. Stores that exclude tobacco sales catered to a niche market and discussed revenue from sandwiches, prepared foods, meat items, and breads as significant sources of income. Stores that sell tobacco discussed revenue from tobacco, pop, candy, and

chips as the main source of revenue. The storeowner of Family Market said that less than 20% of revenue is from “healthy stuff” [see Table 3, Subtheme B].

Much of the business planning for storeowners was derived around crafting the store with *higher price margin products*, while maintaining the store capacity to carry *lower price margin products* such as milk, eggs, produce, and even cigarettes. Local Grocery, a store that sells tobacco, said that the lowest profit margin items were cigarettes and milk [see Table 3, Subtheme C]. Higher price margin products were largely carried in stores that are healthy and do not sell tobacco, as they used higher price margin products to make up for potentially lost revenue from tobacco and carrying produce. Prepared foods, sandwich items, and other specialty items from local food producers were offered at a higher price point, a higher margin, allowing a store to also carry produce, milk, and eggs at a lower price point. 43rd Avenue Market highlighted the role of prepared foods, which can be charged upwards of 60 to 100 percent of the true cost [see Table 3, Subtheme D].

Some storeowners spoke about *product sales driving revenue* in the general context of what products their store sold to make money. The response about product sales generating revenue came from healthy, non-tobacco stores (HNT) about lunch foods, specifically sandwiches, as a very important product sale. A minority perspective in *product sales*, Dynamite Market, spoke about struggling, especially in relation to creating income from sales revenue. The storeowner said:

“I’ve just come up on four thousand dollars a week in sales. But that’s not, and that’s sort of ... that’s like I can pay myself now. But last summer I was struggling at 2500 dollars a week in sales in a store like this. It was enough revenue to keep going ... but it

wasn't enough to pay myself. And it wasn't enough to get ahead" (Dynamite Market, HNT).

While none of the other storeowners spoke about struggling to pay themselves or translating revenue to income, it is valuable to consider revenue streams in a small business. Assuming the risks with operation as a for profit store was another minority perspective, where 43rd Avenue Market said that as 'a for profit LLC,' they certainly assume 'the risks associated with operations.' In business planning and management, the same storeowner even provided a minority perspective on *product pricing* and the process of working with community members to determine the price points for various products [see Table 3, Subtheme F]. Corner stores were highlighted as community-centered assets, but they nonetheless remain the storeowner's job as a small business owner.

Table 3. Theme: Business Planning and Management

Theme: Business planning and management		Representative quote
Subtheme A	Business planning before opening	"And I think a lot of convenience store models that we looked to take into account, if it's really the right business planning and projection planning, a lot of those revenues [from tobacco and lottery] are included in that." – 43 rd Avenue Market, HNT
Subtheme B	Revenue from sales	"Right now, I'm telling you, 85% is tobacco, pop, candy, chips. Less than 20% is healthy stuff. Less. So, the store is supported by this part [<i>points to first 3 aisles with chips, candy, sweets, tobacco and pop</i>]." – Family Market, HS
Subtheme C	Lower price margin products	"The lowest profit, I don't know what the profit is, but the lowest profit margin are cigarettes and milk." – Local Grocery, S

Table 3 Continued

Subtheme D	Higher price margin products	“So, there’s that piece of that [carrying prepared foods] and then the kind of, bridging that gap, of potentially lost revenue through tobacco is that prepared foods are offered at a higher price point, a higher margin. So, whereas your common grocery items at a convenience store is between 30 and 40 percent, you can charge upwards of 60 to 100 percent for that prepared food item.” – 43 rd Avenue Market, HNT
Subtheme E	Product sales driving revenue	“Outside of the baked goods, really, lunch [is the biggest revenue driver] – so sandwiches, drinks... then the formula sales are not too far behind that. We are WIC approved.” – Family Baker’s Store, HNT
Subtheme F	Product pricing	“So that would break down the product of specific brands to gluten free items, vegetarian options, all the way down to how much would you be willing to pay more for organic versus local, what are those price points if you would be willing to pay like one to two more dollars for organic and so forth, and the same for local foods.” – 43 rd Avenue Market, HNT

The storeowners that do not carry tobacco ‘firmly planted their feet’ in that decision as they opened their store and evolved. The process they explained of business planning before opening was not whimsical and required planning and research of higher profit margin products to carry that drove foot traffic and made up for the potential loss in revenue. The storeowners that sell tobacco discussed the role it played in helping keep their feet on the ground during the early months as a reliable sale.

The subtheme, *store genesis and bottom line when opening*, details the bottom line of the store when opening, which was a common theme in stores that do not sell tobacco. These stores knew they would not carry tobacco when they developed their store concept. Table 4, Subtheme A cites a quote from 43rd Avenue Market, as they knew they would not be carrying tobacco or lottery products before they even determined their product mix. *Store growth/improvement since*

opening is a concept that arose organically and was not asked about in the interview guide. Most storeowners discussed their growth and improvement in resources or product mix when they were asked about their customer base. The owner of Family Market was particularly representative of this because he said that most of his customers were families, and that makes him very happy to improve his store [see Table 4, Subtheme B]. Since opening, he has invested in a six-door freezer, allowing him to carry freezer food items for families.

Storeowners spoke of their *store's future goals and dreams*, or what they want to see the store become and what they want their store to look like in the future. This subtheme encompasses concepts like 'wanting the store to be a mix of everything' (Family Market, HS), coming up with 'new ideas' to drive foot traffic and get the word out (Family Baker's Store, HNT), or just simply 'wanting to survive here' (Local Grocery, S). Storeowners had different perspectives on the future of their stores, but Family Market mentioned that the store supports everybody and will carry products that are wanted, hopefully bringing good income [see Table 4, Subtheme C].

A minority perspective of store evolution since opening came from Local Grocery, where the influx of larger grocery stores in the area has decreased the role his store serves in the community and led to the *store's drop-off in business*. He said that his store has been in the area for a long time, since before grocery stores opened up in the community, but "now you look and there's nothing... .. but we used to be a grocery store" [see Table 4, Subtheme D]. While this was only one store that spoke of drop-off in business since opening, it was particularly interesting to consider his experience, and the changing role of corner stores in communities where larger grocery stores have moved in and taken over as the food source for the local customer base. Product mix and revenue streams changed as the context of the store changed

within the greater community, ultimately negatively impacting the capacity of the store from carrying ‘everything’ to carrying ‘nothing.’

Table 4. Theme: Store Evolution Since Opening

Theme: Store evolution since opening		Representative quote
Subtheme A	Store genesis and bottom line when opening	“But it was definitely a bottom line of ours that we would not carry them. We just thought it counters to our kind of mission and while we certainly sell pop, and you know, some minimally processed foods and that sort of thing, we just did firmly plant our feet in our decision around that [not to carry tobacco and lottery]. So I guess, even before we determined our product mix, we knew we would not be carrying that.” – 43rd Avenue Market, HNT
Subtheme B	Store growth/improvement since opening	“That [many customers are families] is what makes me happy that I can improve. You see I invest in new, that new six door freezer, that’s new.” – Family Market, HS
Subtheme C	Store future goals and dreams	“And this is my goal, people say ‘what you going to do?’ I say, see: ‘I get the normal convenience like gas station and everybody, I get the international, I need them to fight.’ I’m not supporting nobody. I’m bringing everything for everybody I support everybody! I hope we win and bring me that good income - I’ll follow!” – Family Market, HS
Subtheme D	Store drop-off in business	“We are here a long time, so we are here in this location when there were no grocery stores. At that time, we were the Family Dollar. We had everything in the store. Now there’s nothing in the store. Now you look and there’s nothing... .. but we used to be a grocery store. Everything, baby diapers, every kind of food. We had more cases in the basement. All the cases stayed in the basement... .. Well, now there is Aldi store and Family Dollar store. But we are still here, and we will stay.” – Local Grocery, S

4.2 DECISION TO INCLUDE OR NOT INCLUDE TOBACCO PRODUCTS IN THE CORNER STORE

There were a number of individual storeowner level factors that impacted the decision to carry or not carry tobacco. Of the three stores that do not carry tobacco, two had *food studies backgrounds* in schooling or work surrounding food policy in the greater community. Through a food studies background, they saw the corner store as serving to increase community capacity around food and examined the ways that can be done within their store [see Table 5, Subtheme A]. This personal value was a large part of the decision not to carry tobacco in the store. The third storeowner (a manager) cited an interest in healthy lifestyles, though this was a minority perspective, as the reason for leaving tobacco out of the business plan: “he is very against smoking, and that’s why we don’t sell it. It’s as simple as that! He’s very against it” (Family Baker’s Store, HNT).

Of the storeowners that sell tobacco, they were open and honest about their decision to carry tobacco. They shared *thoughts on tobacco sustaining itself as a product* and *thoughts on societal change around tobacco*. The storeowner of Local Grocery explained that they do not like to sell tobacco “but it is part of business” because “every person in society smokes.” Storeowners’ perspectives of selling tobacco were not without considering the greater role of tobacco in American society. The same storeowner answered a question about how to help corner stores move in a healthier direction by discussing the difficulties of impacting societal change around tobacco, health, and even race [see Table 5, Subtheme B]. The response to this question by storeowners who sold tobacco was interesting, as it often left the corner store as the unit of study and moved to the macroscale of societal change. The storeowner of NY Market replied to the question with a reference to the power that tobacco has in sustaining itself as a

product, a concept that came up surrounding foot traffic as well. He said that because tobacco is so omnipresent, “you ain’t gotta try to make money on your own” [see Table 5, Subtheme C].

One very valuable minority perspective was the *cultural influence on opinion of tobacco*, which came up during the Local Grocery interview. While this concept did not directly correlate with the storeowner’s decision to sell tobacco, it provided insight into the storeowner’s value system, much like the storeowners who have values based in food studies. The storeowner said, in response to a question about how he felt about selling tobacco in the store, that “back home in our families, we are not allowed to smoke at all” and smoking is unacceptable in the community [see Table 5, Subtheme D].

We did not hear any other responses related to cultural values, but the perspective of how the storeowner determines whether or not to carry tobacco in the store was not without consideration of beliefs and values surrounding tobacco. Future interventions and programmatic approaches may appeal to the storeowner’s cultural values when approaching corner store reform.

Table 5. Theme: Individual storeowner culture and values

Theme: Individual storeowner culture and values		Representative quote
Subtheme A	Food studies background	“And then I wrote my thesis on: ‘... how do you do food in a neighborhood like Hazelwood?’ and I did a lot of research on what people who use food stamps buy and where do people shop? Where are the best deals, you know ...? why do people shop in big suburban grocery stores? What are the things that people buy with food stamps?” – Dynamite Market, HNT
Subtheme B	Thoughts on societal change around tobacco	“The other thing if everybody can think this can be changed, it might take a long time. It’s hard to understand people... .. But not many people give up [smoking]. So, I think it can start from the

Table 5 Continued

		home. Like home, church, school. When we say at home, when we talk, if they can talk nice at home. Everything starts from there. It doesn't matter if you're talking about food, doesn't matter if you're talking about race, talking about hate. Because people have ... Health-wise, race-wise, people need more education to understand human beings. It's hard." – Local Grocery, S
Subtheme C	Thoughts on tobacco sustaining itself as a product	"Honestly, tobacco has all of the room. It has all of the room. You ain't gotta try to make money on your own." – NY Market, HS
Subtheme D	Cultural influence on opinion of tobacco	"I feel like ... I tell you back home in our families, we are not allowed to smoke at all. Period. Anybody smoking in my community is a bad thing. In the community it is unacceptable. Any kid doing out of family ... no tobacco at all." – Local Grocery, S

The decision to sell tobacco or not sell tobacco in the corner store was a combination of storeowner individual culture and values, storeowner thoughts on societal change around tobacco, storeowner thoughts around tobacco as a self-sustaining product, and business planning and management practices. *The decision to carry tobacco* was a powerful subtheme that emerged, as storeowners that sell tobacco explained that they did not really want to do so but they did what they could to keep their business afloat. The storeowner of Local Grocery explained that “we are strongly against tobacco, but we can do whatever we can do,” and that although they do not like tobacco personally, it is part of business. There was a widespread idea expressed by storeowners that tobacco purchases are connected to chips, candy, and sweets purchases, and that tobacco sales drive the sales of other products [see Table 6, Subtheme A].

On the other hand, for stores that do not sell tobacco, the *decision not to carry tobacco* was very similar to the *store genesis* [see Table 4, Subtheme A]. The decision not to carry tobacco was a well-thought out and intentional decision, rooted in offering a healthy alternative

to the community [see Table 6, Subtheme B]. Storeowners do not sell tobacco because they do not want to, but also because they planned their store around different products and considered *replacing tobacco revenue* in their business planning [see Table 6, Subtheme C]. 43rd Avenue Market carried prepared food items at a higher price margin, making up revenue that is potentially lost by not carrying tobacco products. They spoke of replacing tobacco revenue in their business planning through prepared foods:

“So, whereas your common grocery items at a convenience store is between 30 and 40 percent [price margin], you can charge upwards of 60 to 100 percent for that prepared food item. The stores that decide not to carry tobacco products focus their store on other ready-made products to bridge the gap and change the focus of the corner store” (43rd Avenue Market, HNT).

The decision to carry tobacco was rooted in the belief that tobacco brings in foot traffic and the role it plays in revenue because “It’s good money. It’s guaranteed” [see Table 6, Subtheme D]. The storeowner of Family Market, a corner store that sells tobacco, mentioned that he sold fresh meat items and wanted to focus on having a considerable stock of fresh meat items to “cover all tobacco.” One approach to reforming corner stores that sell tobacco is replacing tobacco revenue with high profit margin products, as this storeowner is already considering.

One perspective from a storeowner that does not carry tobacco was that “everybody [considers selling tobacco], the first six months they’re open” (Dynamite Market, HNT). While the decision was made not to carry tobacco before opening, this storeowner mentioned that she struggled with not catering to the customer base that came into the store and asked if she sold cigarettes. About this, she said: *“And that would have been a customer base and it was very tempting last summer to go that route and put in something that would just bring people in the*

door” (Dynamite Market, HNT); connecting this back to the *decision to carry tobacco*, it becomes clear that storeowners across all types of stores believed that tobacco brings in foot traffic and provides a customer base.

Table 6. Theme: Selling/Not Selling Tobacco

Theme: Selling/Not Selling Tobacco		Representative quote
Subtheme A	Tobacco connection to chips/candy/sweets	“The problem is if you stop with tobacco, all these 3 aisles will stop... The chips, candy, the sweets, you know. It’s connected with this, by this, you know?” – Family Market, HS
Subtheme B	Decision NOT to carry tobacco	“The owner of the store, the owner of the facility, does not want tobacco. A lot of our employees smoke, and... he is very against smoking, and that’s why we don’t sell it. It’s as simple as that! He’s very against it. He wanted to come in and do something, offer alternatives to the community.” – Family Baker’s Store, HNT
Subtheme C	Replacing tobacco revenue	“Ready-made [items can be offered to shift the focus from tobacco as a revenue stream] ... like the carrot sticks and things like that. When you walk in here, our produce cooler is the first thing you see coming through... it’s right there.” – Family Baker’s Store, HNT
Subtheme D	Decision to carry tobacco	“I don’t like doing that, but as a new business, I should do it so that I can bring the traffic in and this is my plan ... It helps me for my rent, the rebate from the company. It’s good money. It’s guaranteed.” – Family Market, HS

4.3 PRODUCT MIX: TOBACCO, PRODUCE, AND SPECIALTY PRODUCTS

The *product mix that makes up the store* was the selection of items available in a store. Structuring the store and deciding on product mix is a part of the storeowner’s role as the “choice

architect,” and was a theme that emerged across all interviews. The storeowner of Family Market said that as a small store owner, he carried low sodium chips and drinks, as well as “tomatoes, a couple green peppers, lettuce” [see Table 7, Subtheme A]. The product mix in each store varied and depended on the storeowner and where they sourced their food.

The market created by *specialty products* was a key response from storeowners about their product mix. All but one storeowner spoke of specialty items in their store that created a niche market for customers and differentiated them from other stores. New customers often came to the store because of the specialty market products. Specialty items included local food distributors such as Leona’s Ice Cream Sandwiches or Pittsburgh Pickles, local organic or halal meat, or island products from [redacted], among other products. 43rd Avenue Market (HNT) stated that specialty products “provide higher margins” that “allow us to keep things like produce, your eggs, your milk, things like that that at a lower price point” [see Table 7, Subtheme B]. In addition to *specialty products*, storeowners that do not sell tobacco products spoke of the important role that *prepared food items* played in both bridging the gap between potentially lost revenue from not selling tobacco, but also mitigating spoilage due to carrying produce [see Table 7, Subtheme C].

Not perishable food items are a part of processed food availability in a convenience store. Items like chips and candy are not perishable and have a long shelf life [see Table 7, Subtheme D]. Additionally, one storeowner even mentioned that tobacco is a non-perishable food item with a “very long shelf life.” Please note that tobacco products were a part of the product mix in stores that do sell tobacco, but that theme was separate and analyzed exclusively in Table 8 due to the nature of the research. There is minimal waste from non-perishable food items, and although items expire, storeowners can have contracts with distributors that come in and swap out expired

items for new ones. This process was explained to be a part of the ease and flexibility storeowners have with including non-perishable food items in their store.

The minority perspective on product mix actually presented a unique perspective on carrying products in the store that do not make money but bring customers in and fill a need in the community. Local Grocery has bus permit machines in the store, which is a specialty product that provides foot traffic, without directly providing revenue. The storeowner said:

“The other big thing we have here is selling bus passes for people. That machine has nobody in the area, started from none. Nobody has it ... Why other people don’t have bus permit machine, why they don’t have it? ... There’s no money in that [having a bus permit machine]” (Local Grocery, S).

The response from other storeowners about their product mix was about grocery and convenience store items that they sold, but unique to this mix was the bus pass machine.

Table 7. Theme: Product Mix

Theme: Product mix		Representative quote
Subtheme A	Product mix that makes up the store	“Yeah, the only that the best food that people like is low sodium like chips, low sodium drinks, and then maybe people ... like we are doing a couple of tomatoes, a couple green peppers, lettuce, and ... so if a small store can do that, that helps a little bit.” – Local Grocery, S
Subtheme B	Specialty products	“And then since opening, [we] have developed a ton of direct farm partnerships and food producer partnerships, and have created a little niche market for those new food producers like Pittsburgh Pickle Company and Leona’s Ice Cream Sandwiches, and others, that really provide higher margins through those specialty products that allow us to keep things like produce, your eggs, your milk, things like that that at a lower price point.” – 43rd Avenue Market, HNT
Subtheme C	Prepared food items	“Yeah, so, for our experience specifically, we

Table 7 Continued

		looked to prepared foods to help kind of, I guess, bridge that gap between that potential loss in revenue [from not selling tobacco] and then to also provide a source of use for... to prevent... I guess to mitigate spoilage ... ” – 43rd Avenue Market, HNT
Subtheme D	Not perishable food items	“And so, all of those foods [the snack foods], none of those foods are very perishable... Very little waste.” – Dynamite Market, HNT

Carrying tobacco products was emphasized as one of the easiest sources of revenue for a storeowner. Storeowners explained that new stores often struggle to stay afloat and tobacco has a long shelf life. The unique aspect of tobacco products is the simplicities that come with selling them: the long shelf life and low maintenance; these also apply to non-perishable products like chips and sweets.

Storeowners that sell tobacco spoke of the *tobacco rebate money* providing guaranteed revenue. Owning a small business and assuming a lot of risk with operations, guaranteed money felt like, and often was a necessity to keeping the doors open [see Table 8, Subtheme A]. *Tobacco company agreements* [see Table 8, Subtheme B] and *tobacco distributor markets* [see Table 8, Subtheme C] provided products for the stores that carry tobacco. The stores that we spoke to said that they had *no tobacco company requirements* around advertising or anything for selling the products [see Table 8, Subtheme D]. The storeowners simply carried the tobacco products and decided what to do with them within the allowance of the law. Storeowners were the “choice architects.” deciding where to place advertisements and the amount of tobacco products to place behind the counter.

The minority perspective on selling tobacco came from Dynamite Market, where they brought up *tobacco licensing* as a barrier to selling tobacco. They do not sell tobacco because of their store genesis, but in the beginning stages, found that there were two difficulties with selling

tobacco in the store. Permitting and license paperwork to become a tobacco retailer was one part of this [see Table 8, Subtheme E], and the other was knowing the market of tobacco products and learning what products to carry. She said that “learning the market, as well ... that, to me, was a pretty significant barrier. I just don’t know either of those markets [tobacco or lottery]” (Dynamite Market, HNT).

Table 8. Theme: Logistics of Selling Tobacco

Theme: Logistics of selling tobacco		Representative quote
Subtheme A	Tobacco rebate money	“... It helps me for my rent, the rebate from the company. It’s good money. It’s guaranteed” – Family Market, HS
Subtheme B	Tobacco company agreements	“Newport is number 1. Then Mavericks and Wave, and Kool. That’s all. I got 3 of them.” – Family Market, HS
Subtheme C	Tobacco distributor market	“I used to buy my things from [name]. They closed about two months ago. So I go to this place on Liberty, tobacco company.” – NY Market, HS
Subtheme D	No tobacco company requirements	“Nope [tobacco distributor doesn’t have any requirements for advertising or anything for selling the products].” – NY Market, HS
Subtheme E	Tobacco licensing	“So, yeah ... I didn’t do it [sell tobacco] for a couple reasons. One is the permitting. So you have to get a license ... No, it’s just the licensing. We have to get sales tax and hotel license ... so it’s just doing the paperwork. And you can do it online so it’s not ... it wasn’t a real big deal, but it was just something, just an extra thing to do.” – Dynamite Market, HNT

While tobacco products have a long shelf-life and provide guaranteed money in the product mix, carrying produce was detailed as difficult and high-maintenance. The main takeaway from storeowners was that carrying produce required time, money, knowledge, and commitment. *Managing produce in the store* was a learning process, which all stores reiterated [see Table 9,

Subtheme A]. Produce was a “very perishable item” that required a lot of knowledge on the part of the storeowner to manage and learn how to reduce waste while mitigating spoilage. *Produce spoilage and challenges* was a common subtheme that arose from all storeowners in response to questions about carrying fruits and vegetables as a healthy store [see Table 9, Subtheme B]. Maximizing the shelf life of produce required having a cooler, which is extremely resource-intensive because coolers are expensive and an investment for the storeowner. Ready-made items and prepared foods were one source of *spoilage mitigation and management* [see Table 9, Subtheme C].

Sourcing produce from distributors was one part of carrying produce that was challenging for storeowners. Storeowners spoke of difficulties with making it through a case of produce without spoilage, as *produce distributor partnerships* often required stores to buy by the case. Family Baker’s Store said:

“We had initially gone through a produce distributor, but after a while we were not able to meet the minimums for them to deliver it, and we had an issue with waste because you had to order so much for them to bring it” (Family Baker’s Store, HNT).

In response to this challenge of sourcing produce, they partnered with the Green Grocer program of Just Harvest, a mobile farmers’ market that comes to a site free of charge at a set date and time. This direct partnership was one representative example of mitigating spoilage and maintaining community capacity around healthy food [see Table 9, Subtheme D].

Table 9. Theme: Carrying and Managing Produce

Theme: Carrying and managing produce		Representative quote
Subtheme A	Managing produce in the store	“And I would say that one significant thing about produce is that it’s not like stocking chips. You have to know something about managing it. It’s a very perishable item. You .. yeah, I do pretty well here, I don’t have a lot of waste, but I’m 3 years into ... 4 years now... into managing produce and I have a pretty good idea of what will sell within the time that I have.” – Dynamite Market, HNT
Subtheme B	Produce spoilage and challenges	“Produce is highly perishable. You have to buy cases of stuff. You’re not necessarily going to sell the case. Managing that case, managing that order ... I don’t buy on delivery, and I’m a grocery store. Because of quality control, and also because I don’t go through cases of everything.” – Dynamite Market, HNT
Subtheme C	Spoilage mitigation and management	“I guess to mitigate spoilage ... so whenever you’re carrying prepared food, there’s obviously going to be a level of spoilage that you’re experiencing. And we saw, again, prepared foods not only as an opportunity to decrease that ... So, yeah, your bananas are turning, you make banana bread, and it’s perfectly great.” – 43rd Avenue Market, HNT
Subtheme D	Produce distributor partnerships	“Right now, the majority of the produce we get in is local, we get it through the Green Grocer, every week it’s brought in fresh, and by the end of the week we’re selling out of that, as well.” – Family Baker’s Store, HNT

4.4 CUSTOMERS AND THE COMMUNITY

There was a dynamic relationship that emerged in the analysis between customers and the role of the store in the community. Storeowners spoke of the contribution the store made to community capacity around food, and the greater role that the store had in the context of the

community. Across stores, the main customer base was residents. There was a common subtheme brought up across interviews that *customer base is connected to location*, which has implications for the product mix and advertising the store [see Table 10, Subtheme A]. The neighborhood-based location of stores served both the store and the community in a dynamic relationship between the products that residents need and the product mix that the store must offer. Many residents used the corner store for supplementary grocery shopping within walking distance. Storeowners echoed that a “little bit of everybody” (Family Baker’s Store, HNT) stopped at their stores, but primarily folks within walking distance to the store were the most common customers. For *residents and local customers*, the corner store truly served as a convenience store [see Table 10, Subtheme B]. Understanding the role of the store to local residents highlights the ways in which the corner store can best serve the community.

Dynamite Market mentioned that their customer base was threefold, which encompassed the customer bases discussed by other stores: local community members, commuters, and destination shoppers. Approximately half of their customer base was residents doing small or supplementary food shopping. *Commuters stopping by the store* were folks driving past the store that stopped on their way home from work [see Table 10, Subtheme C]. Lastly, destination shoppers were customers that see local paper ads or social media platforms and came looking for the store. In many interviews, storeowners responded to the questions about the customer base with the concept that they have a *diverse customer base* [see Table 10, Subtheme D]. Carrying a diverse product mix reaches more customers, and the following storeowner explained the value in an expansive customer base:

“And those three pieces ... like I wouldn’t make it if I just had the local, just the neighborhood. I couldn’t make it. Like you do have to have a shtick that appeals to those

people who have a higher income, who want to do something like this, and that's a market that will just grow. The local, the neighborhood market ... a lot of the people in the neighborhood still don't know that I'm here. I don't have great signage and I'm not in the business district, and so they're like ... what?! Or the word of mouth is continuing to fill out" (Dynamite Market, HNT).

Youth Customers are vital to the conversation around tobacco exposure in corner stores because they are most vulnerable to marketing at the POS. Youth often frequented the stores in the sample for snacks before and after school or went by the store with their family or guardians [see Table 10, Subtheme E]. One storeowner with a minority perspective on youth as a customer base pointed out the connection between product mix and youth customers, stating:

"Sometimes we see in the morning when the kids go to school, so parents come get them, they pick up chips or candy bar. That can't be done and that can be changed [kids picking up chips or candy bars]" (Local Grocery, S).

The relationship between the role of the store and the customers can be contextualized within the community [see Appendix B]. Food was spoken of as a common amenity that brought together neighborhoods, especially those that are rapidly changing due to gentrification. Additionally, transportation was a piece of grocery shopping that cannot be ignored, as storeowners described that folks often used corner stores to economize their shopping throughout the month, and "they can't take 25 bags of groceries with them" (Family Baker's Store, HNT).

Table 10. Theme: Customer Base

Theme: Customer Base		Representative quote
Subtheme A	Customer base connected to location	“I think due to our kind of neighborhood-based location and the fact that our customer base is so resident-driven, that [advertising in the Post-Gazette] hasn’t really produced as good of a return as say advertising in The Bulletin, which is something we’ve also done, and is our neighborhood, local newspaper for the East End.” – 43rd Avenue Market, HNT
Subtheme B	Residents and local customers	“The people. The people are in the neighborhood and there is no other convenience.” – Family Market, HS
Subtheme C	Commuters stopping by the store	“So there’s a lot of people that live in Baldwin, Whitehall, Munhall, Homestead, Lincoln Place, and they drive past. And a number of them have gotten into stopping.” – Dynamite Market, HNT
Subtheme D	Diverse customer base	“The customers, they are Mexicans, Americans, African Americans, Arab, Indian. Like that, a lot mixed.” – Family Market, HS
Subtheme E	Youth Customers	“And some of the neighborhood kids will come over, there’s a couple kids live over there, and they’ll come in looking for a snack, but we don’t get a tremendous amount of high school students ...” – Family Baker’s Store, HNT

Storeowners discussed the interaction of product mix with their customer base as the driver of foot traffic through the store. They saw *foot traffic for tobacco/lottery* as a main way to bring customers into the store [see Table 11, Subtheme A]. The stores that sell tobacco said that “you have to have it in the store to bring people in so when they come in, then they can buy chips and some water or some food” (Local Grocery, S). As corner stores are often small and surrounded by larger grocery stores, storeowners acknowledged that folks do not have to come in their store, but they saw tobacco as one reason that customers will come into their store. Stores

that do not sell tobacco even saw tobacco as a driver of foot traffic. Family Baker’s Store touched on this, saying:

“We get frustrated, we’re like, if we had cigarettes that would be a draw, we know that, but that is not an option at this point. Which is fine!” (Family Baker’s Store, HNT).

Stores that do not sell tobacco, however, iterated that *foot traffic for specialty products* increased revenue from products with higher price margins [see Table 11, Subtheme B]. Only one storeowner brought up *foot traffic difficulties* and how he has struggled with drawing people into a small store [see Table 11, Subtheme C]. While it may be difficult to bring people into small corner stores, there are alternatives to tobacco that storeowners find make up for the possible loss in revenue from not selling tobacco.

Table 11. Theme: Foot Traffic into the Store

Theme: Foot traffic into the store		Representative quote
Subtheme A	Foot traffic for tobacco/lottery	“I don’t like doing that [selling tobacco], but as a new business, I should do it so that I can bring the traffic in and this is my plan.” – Family Market, HS
		“... the lowest profit margin are cigarettes and milk. But you have to have it in the store to bring people in so when they come in, then they can buy chips and some water or some food.” – Local Grocery, S
Subtheme B	Foot traffic for specialty products	“So, I think partnering with other food producers for those types of [specialty] products is also a way to drive foot traffic for products that do have higher margins.” – 43rd Avenue Market, HNT
Subtheme C	Foot traffic difficulties	“It’s hard. Like this kind of small store, that’s hard to bring people in.” – Local Grocery, S

While corner stores may serve as community assets, providing a source of food and other items, storeowners spoke of varying difficulties with visibility within their community. *Store*

perception was a subtheme that came up often across interviews. The stores that offer a larger variety of grocery items said that “people don’t think about buying groceries in their neighborhood” or they think they’re too expensive [see Table 12, Subtheme A].

Although storeowners spoke of people not knowing where the store was, and frequently getting new customers from the neighborhood that did not know the store was there, they also spoke of the integral role the store plays within the community. Corner stores serve to “maintain community capacity around food” (43rd Avenue Market). *Community capacity and support* emerged as a subtheme, detailing that the need for grocery items brought together the store and the community as one, where the store supported the community by providing food and other items [see Table 12, Subtheme B].

Table 12. Theme: Community Capacity/Role of the Store

Theme: Community capacity/role of the store		Representative quote
Subtheme A	Store perception	“And people don’t think about buying groceries in their neighborhood. Or they see a small store and they think I’m really expensive. And then they finally come in and they’re like: ‘what?! You can buy sliced meat here? I can buy sandwiches for five dollars a pound?!’” – Dynamite Market, HNT
Subtheme B	Community capacity and support	“Especially, we are open 8 to midnight. That’s a long time whenever you think about anything that’s still open, supporting this area.” – Family Market, HS

Another part of the dynamic relationship of a store being a community asset was that customers interacted with the store by providing input. *Community input into the store* occurred at almost every store, even though the process occurred in different ways [see Table 13, Subtheme A]. Storeowners saw their stores as “community-centered assets” (43rd Avenue

Market), understanding the store was truly for the customers. *Community planning practices* involved engaging the community at the individual or neighborhood level to talk about how to best serve the community’s needs [see Table 13, Subtheme B].

Two extreme perspectives of incorporating community input were 43rd Avenue Market and Family Baker’s Store. The entire idea of 43rd Avenue Market was generated out of residents in the neighborhood. Their store planning process was entirely resident-centered and they “really looked to them to determine what that product mix would be” through a comprehensive survey process. Their survey process broke down products into specific brands to gluten free items, vegetarian options, all the way down to questions such as: ‘how much more would you be willing to pay more for organic versus local?’ and ‘what are those price points you would be willing to pay?’ Family Baker’s Store also completed a survey process when their store first opened and found that people in the area most wanted to see milk, bread, and eggs.

Community input into the store also came in the form of storeowners saying that *customers want tobacco*. As the storeowner of Family Market put it: “I’m telling you, it’s not the company, it’s the people [that want the tobacco products]” [see Table 13, Subtheme C].

Table 13. Theme: Community Input

Theme: Community Input		Representative quote
Subtheme A	Community input into store	“I have a book here, any customers says ‘Do you have this?’ ... ‘No, what’s that, write it down. I’ll try to bring it.’ I need to be multinational and a healthy corner, too.” – Family Market, HS
Subtheme B	Community planning practices	“But it’s good. I think, I talk with the Garfield/Bloomfield association on Garfield. I know them from there. The bulletin... I will do advertisements with them, and I told them if we can make and hand out an ad. Like talking about healthy corners in the neighborhood and how we can improve it.” – Family Market, HS

Table 13 Continued

Subtheme C	Customers want tobacco	“They want it [tobacco]. But they want also fresh food like apples, bananas, oranges. Stuff like that. They want, but then again they want cigarettes. I can’t really like change their mind. Ya know. I try to steer them one way, but it’s their final decision.” – NY Market, HS
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4.5 **MARKETING AND ADVERTISING THE STORE**

Marketing and advertising practices within the community are the one tool the storeowner has to expand their reach and draw in more customers. There are a number of channels to market and advertise the store to the community, and each store had its own approach to marketing. *Newspaper* advertisements were brought up as one way of advertising to a broader population, but 43rd Avenue Market (HNT) said that the best returns came from the local, neighborhood area because of the neighborhood-based location and the resident customer base [see Table 14, Subtheme A]. *Google* maps and advertisements were the number one customer coming to Family Market (HS), according to the storeowner [see Table 14, Subtheme B]. Additionally, *social media* outlets such as Twitter, Facebook, and Instagram are low-cost and can be used daily to promote specials or specialty products [see Table 14, Subtheme C]. *Word of mouth* was iterated as the most valuable marketing for specialty products, where customers will recommend the store to other folks because of its unique product mix [see Table 14, Subtheme D].

The minority perspective on marketing and advertising was one storeowner that made use of *direct mail*, which is a higher-cost approach. Only 43rd Avenue Market (HNT) mentioned using direct mail to reach the local customer base and was certain that this method provided the

biggest return in bringing in more customers [see Table 14, Subtheme E]. The same minority perspective involved the subtheme *marketing budget*, and the reality that for a small business, marketing is a budget item that is often not included despite being one of the most valuable returns for the store [see Table 14, Subtheme F].

Table 14. Marketing and Advertising the Store

Theme: Marketing and Advertising the store		Representative quote
Subtheme A	Newspapers	“What we have tried in the past... to kind of print ads through the City Paper or Post-Gazette or things like that. I think due to our kind of neighborhood-based location and the fact that our customer base is so resident-driven, that that hasn’t really produced as good of a return as say advertising in ... our neighborhood, local newspaper for the [redacted area].” – 43rd Avenue Market, HNT
Subtheme B	Google	“I find the google maps and google ads is number one customer coming here.” – Family Market, HS
Subtheme C	Social media	“With all that being said, we do have a strong social media presence. We utilize Facebook, Instagram, and Twitter. I have seen same day returns on our twitter account promoting lunch specials or specialty products that just came in, whatever the case may be, and same with those other channels as well.” – 43rd Avenue Market, HNT
Subtheme D	Word of mouth	“And most [redacted] people when they’re looking for certain food, they will recommend my store. Like this lady she just told this lady on her cell phone ... word of mouth.” – NY Market, HS
Subtheme E	Direct mail	“In terms of efforts that we’ve done that has produced most returns, but is definitely the most costly, is direct mail. That has definitely proven to give us the biggest return just in terms of letting people know that we’re here.” – 43rd Avenue Market, HNT
Subtheme F	Marketing budget	“But certainly, I think marketing suffers for any small business and it certainly does for us. It’s just one of those price points, or one of those budget items that, you know, while it is arguably the most important. It’s hard for me sometimes to imagine throwing a few hundred dollars at an ad.” – 43rd Avenue Market, HNT

4.6 BARRIERS, OPPORTUNITIES, AND RECOMMENDATIONS

The value in interviewing storeowners who do not sell tobacco in their store was gaining unique insight into the issues and barriers that must be overcome to commit to revenue streams and customer bases that do not include or rely on tobacco. Storeowners highlighted the barriers they face to be or become a healthy store that doesn't have tobacco in the product mix. As a small business, respondents emphasized difficulties with *time and money* in committing the store to healthy foods and relying on products other than tobacco to bring in customers. In response to a question about what prevents stores from becoming healthier or limiting the tobacco exposure that their store has to the community, one respondent emphasized that "you're asking them to take on a huge risk" and then they "have to deal with spoilage and ordering and this sort of thing" [see Table 15, Subtheme A]. Ordering produce from distributors is another barrier that was brought up often in relation to carrying produce and being a healthy store. *Produce distributors* have minimum deliveries, meaning stores are required to order a certain amount of produce, and this is often by the case, which leads to a lot of waste for small stores [see Table 15, Subtheme B]. *Managing produce supply* is a process requiring knowledge by the storeowner and they iterated that carrying a lot of produce was a time commitment because of this [see Table 15, Subtheme C].

Across the interviews, one of the most frequent concepts was the role of refrigeration and cooler space to expand the product mix. In response to a question about how to keep corner store doors open while reducing tobacco exposure at the point of sale, 43rd Avenue Market said that prepared food can bridge the gap. However, they continued to explain that there are a host of issues with selling prepared foods such as refrigeration, employee training, and safety

certifications. While prepared foods have been one of their biggest growth points in their years of operations, it also required a number of resources.

“That’s not to say that [carrying prepared foods] doesn’t offer a whole other host of issues in terms of like refrigeration and employee training and managing spoilage and safety certifications, and all that sort of thing. But for us that was the best option and proved to be the biggest [in terms of our product sales], the biggest growth point that we’ve seen in the years that we’ve been in operation” (43rd Avenue Market, HNT).

Storeowners may want to carry more produce in their store, but the costs associated with adequate *cooler/refrigeration resources* was a barrier voiced by all stores. Coolers for produce refrigeration, and even freezers to provide a more diverse product mix, are extremely expensive. The storeowner of Family Market (HS) was waiting on a new six level cooler from a partnership with Just Harvest’s Fresh Corners program, though he stated it is “a good investment and it will keep a lot of fresh produce” [see Table 15, Subtheme D]. Another resource barrier that emerged for diversifying the store’s product mix and relying on items that aren’t tobacco or non-perishable was the need for *storage space resources*. Storeowners can’t expand their market model without the necessary cooler space or back-storage [see Table 15, Subtheme E].

Lastly, storeowners said that the *perception of the store* within the community was a barrier to reforming the corner store. This was a minority perspective brought up by a couple of storeowners, but it was mentioned that the community perceives stores in certain ways and this was a barrier to reforming the store. “Getting to change perception that’s deeply seeded, in some cases, of what that store is or used to be” is one piece of becoming a healthier corner store [see Table 15, Subtheme F].

Table 15. Theme: Barriers to Be/Become a Healthy, Non-tobacco Store

Theme: Barriers to be or become a healthy/nontobacco store		Representative quote
Subtheme A	Time and money	“I mean, I think, you know it always comes down, no matter what, to time and money. So, one, you’re approaching people that are seeing, you know, what could be large revenue gains from a product, and you’re asking them to take on a huge risk ... something that they necessarily haven’t carried before that also has low margins in some cases, in the case of produce that they then have to deal with spoilage and ordering and this sort of thing.”– 43rd Avenue Market, HNT
Subtheme B	Produce distributors	“And that was one issue we had in the beginning [identifying who supplied fresh foods]. We had initially gone through a produce distributor, but after a while we were not able to meet the minimums for them to deliver it, and we had an issue with waste because you had to order so much for them to bring it. The green grocer’s working out for us right now.” -- Family Baker’s Store
Subtheme C	Managing produce supply	“So, when do I have time to think through ... so I would say your biggest barrier probably is sourcing. And then your second barrier is managing your supply.” – Dynamite Market, HNT
Subtheme D	Cooler/refrigeration resources	“Yeah, I’m going to bring all the freezer food for them and improve that. Fresh produce, I’m waiting... It’s a big cooler like from here to here [hand gestures size]. Six levels, it’s customized. He doesn’t tell me it’s customized! I’ll take whatever they have! But it’s a good investment and it will keep a lot of fresh produce. So that will help too.” – Family Market, HS
Subtheme E	Storage space resources	“We don’t have the back-storage space, so what we have here is what we’ve got.” – Family Baker’s Store, HNT
Subtheme F	Perception of the store	“You’re going to have to change the culture of that store, as well, and I think that’s kind of the secondary part of new signage is not only advertising this new product mix, but getting to change perception that’s deeply seeded, in some cases, of what that store is or used to be.” – 43rd Avenue Market, HNT

Though many barriers may exist to be or become a healthy store that doesn't sell tobacco, storeowners emphasized an array of opportunities that exist to reform the corner store. The community's perception of the store can operate as a barrier to be a healthy corner store, but the opportunity exists to take advantage of *marketing and advertising outreach opportunities* [see Table 16, Subtheme A]. Storeowners across all interviews spoke about the role of marketing and advertising, saying there remained opportunities to "let the community know what we have" (Family Baker's Store, HNT). In response to a question about how programs and organizations could help with marketing and advertising, 43rd Avenue Market (HNT) stated that any help would need to be "targeted and specific, and really thoughtful, I guess, in what new customers they're looking to potentially draw in."

An opportunity exists to shift the store's focus away from tobacco and unhealthy products, but this shift requires careful planning. The easy thing about a convenience store, one storeowner said, is that you can have three suppliers and have a store with little to no waste. However, sourcing healthier food products like produce is not as simple. There is an opportunity to overcome this barrier by *improving the product mix*, which can be done in a number of ways, but as "choice architects" of the corner store, storeowners can modify the environment. Family Baker's Store (HNT) suggested that an opportunity exists to integrate the produce and fresh fruits, and this can even be "as simple as having oranges in baskets, having apples and oranges on the counter, at the register" [see Table 16, Subtheme B]. *Providing produce sourcing* to small corner stores was mentioned as one opportunity to assist stores in becoming healthier community assets. Finding appropriate *produce distributors* was a barrier mentioned by a couple of storeowners [see Table 15, Subtheme B], but they also stated that an opportunity exists for local programs or interventions to provide corner stores with produce, without the added barrier of

managing spoilage. One storeowner that carried produce even helped out other corner stores in town by bringing them fruits and vegetables by the count to carry in their store [see Table 16, Subtheme C].

Engaging storeowners in this programmatic reform of their store can be tricky because they are small business owners who rely on profit. A minority of interviewees indicated that an opportunity to reform the corner store is to *engage storeowners in the process* to truly change their market model, coming up with “authenticity in the approach” and possibly providing some “long-term handholding.” While support through advertising offers one way to help stores get the word out and increase their customer base, this approach seemed to be limiting from the perspective of storeowners. Working with storeowners to reform corner stores requires that programs support storeowners in real ways, such as showing true two- to three-year profit projections of how customer base changes contribute to future profits. 43rd Avenue Market offered up the following advice for engaging and working with storeowners to reform the corner store:

“So, how can the case best be presented to show that they’re supported in real ways, and by that I mean what sort of support could be offered to show practical projections over a two to three year period to make up those losses in revenue? And how can they see that connecting to a larger community is going to, and by offering a new product, and perhaps getting rid of previous products, will garner even more of a customer base that will contribute to future profit? I think that’s gonna be the harder sell, but if there’s some authenticity in that approach and some long-term handholding, I think that would lead ... if it were me as a skeptical person ... that would make me a little bit more willing and it would make the venture seem a little less crazy” (43rd Avenue Market, HNT).

One proposed possibility to dispel concerns and alleviate stress throughout the reform process is to engage storeowners in a network of other storeowners, creating a peer support network that forms a community and fosters dialogue among storeowners that want to reform their store [see Table 16, Subtheme D].

Table 16. Theme: Opportunities to Reform the Corner Store

Theme: Opportunities to reform the corner store		Representative quote
Subtheme A	Marketing and advertising outreach opportunities	“We’re in the process of talking about some big changes we’re going to make and offerings we’re going to have, and the advertising, but we just haven’t gotten there yet. We’re limited with our space, too.” – Family Baker’s Store, HNT
Subtheme B	Improve product mix	“Yeah, if you could start integrating the produce and the fresh fruits, and even as simple as having oranges in baskets, having apples and oranges on the counter, at the register.” – Family Baker’s Store, HNT
Subtheme C	Provide produce sourcing	“So, I do fruits and vegetables in both of the convenience stores here in town.” – Dynamite Market, HNT
Subtheme D	Engage storeowners in the process	“I think engaging them in a network of other storeowners that you’re also approaching so they as small business owners can have that community and can have that dialogue among themselves, is really important and can also hold value. And then also linking them with other storeowners that, you know, like myself and others, that are engaged in this kind of different model will also be helpful in kind of dispelling potential concerns and that sort of thing.” – 43rd Avenue Market, HNT

In interviews, storeowners were asked for suggestions and recommendations about ways to help stores shift the focus from tobacco as a revenue stream and offer healthier products. Storeowners provided a spectrum of *recommendations for store improvements* focusing on the

façade and interior of the store itself as an intervention target. One part of this was to provide “a fresh coat of paint” and remove “years of those tacked on top of each other signs” [see Table 17, Subtheme A], and another part was *incentivizing offering healthier products* via resource investments within the store like coolers and freezers that allow for a diversified product mix [see Table 17, Subtheme B]. Specifically, storeowners recommended incentivizing a healthier produce mix by providing a “grab and go cooler” (a refrigerated open front display case) to keep produce accessible and visible to customers.

Storeowners had a number of *recommendations for partnerships* to shift the focus from tobacco as a revenue stream to produce and healthier food options. Family Baker’s Store (HNT) recommended partnerships with food distributors willing to bridge the gap for stores that want to carry produce but can’t meet the sourcing minimums [see Table 17, Subtheme C]. Dynamite Market (HNT) suggested that a program could stock corner stores with produce and go through and refresh everything to minimize waste, in order to provide a source of produce for small corner stores that can’t meet food distributor minimums.

A number of storeowners brought up *talking to the community* as a recommendation to move forward with reforming the corner store. The storeowner of Family Market (HS) mentioned that moving forward and working to become a healthier store in the community, he wants to talk with community groups about healthy corner stores in the neighborhood and how to improve them. Dynamite Market (HNT) suggested that connecting community group(s) and storeowners would create a relationship to work toward improving community capacity around food and target the store’s product mix to the customer base [see Table 17, Subtheme D].

Table 17. Theme: Recommendations to Reform the Corner Store

Theme: Recommendations to reform the corner store		Representative quote
Subtheme A	Recommendations for store improvements	“You know, in some cases there’s vast improvements that can be done, but largely like a fresh coat of paint and removing years of those tacked on top of each other signs would produce vast improvements.”– 43rd Avenue Market, HNT
Subtheme B	Incentivize offering healthier products	“Like if you were coming by and putting things in their cooler, and if you had a grab and go But if you had a reasonable sized grab and go, you could probably keep vegetables in there pretty easily.” – Dynamite Market, HNT
Subtheme C	Recommendations for partnerships	“Get those distributors! You know, because they have waste, they have the capabilities... now, [redacted distributor] was willing to work with us with the price points. But everything’s working out fine with Green Grocer. But you’ll find some of them are going to be willing to give back, and I think that might be a way to pull them in, you know, if you can get meetings with them and say, these stores who want to sell these products but can’t get them because they can’t meet the minimums, you’re here and what can you do to bridge that gap?” – Family Baker’s Store, HNT
Subtheme D	Talk to the community	“What you could do [to make it a community effort] is: if there’s a community group that you can connect to and then say, ‘do you guys want ...? will you buy stuff if you ...?’” – Dynamite Market, HNT

5.0 DISCUSSION

The research indicated that storeowners in the sample determined their product mix and the inclusion or exclusion of tobacco products based on a dynamic interaction between business planning, customer input, and individual decision-making processes. Stores that sell tobacco echoed the idea that tobacco drives foot traffic through the store and leads to the sale of other products. On the other hand, stores that do not sell tobacco iterated that they make up for the potential loss in revenue through carrying specialty products that also drive foot traffic through the store, such as prepared food items or niche local distributor items.

The following is a model of the relationship between customers and the role of the corner store, as well as the business planning and storeowner preference that goes into creating the retail store environment. Based on the findings, customers interacted with the store's role in maintaining community capacity around food through community input, and the store interacted with the customers by driving foot traffic through marketing the store. While this relationship served to create the product mix of the store, mainly tobacco, produce, and specialty products, there were also three outside inputs that involve the storeowner. The storeowner fundamentally determined the *business planning and management* of the store in an iterative process, while also maintaining their own *individual culture and values, thoughts on societal change around tobacco, and thoughts on tobacco as a self-sustaining product*. The reciprocal relationship between customers and store community capacity was modified by storeowner inputs, thereby

structuring the product mix and tobacco sales. The model provides a framework to begin thinking about why a storeowner decides to carry or not carry tobacco and how they followed through on the decision not to carry tobacco, when that decision was made.

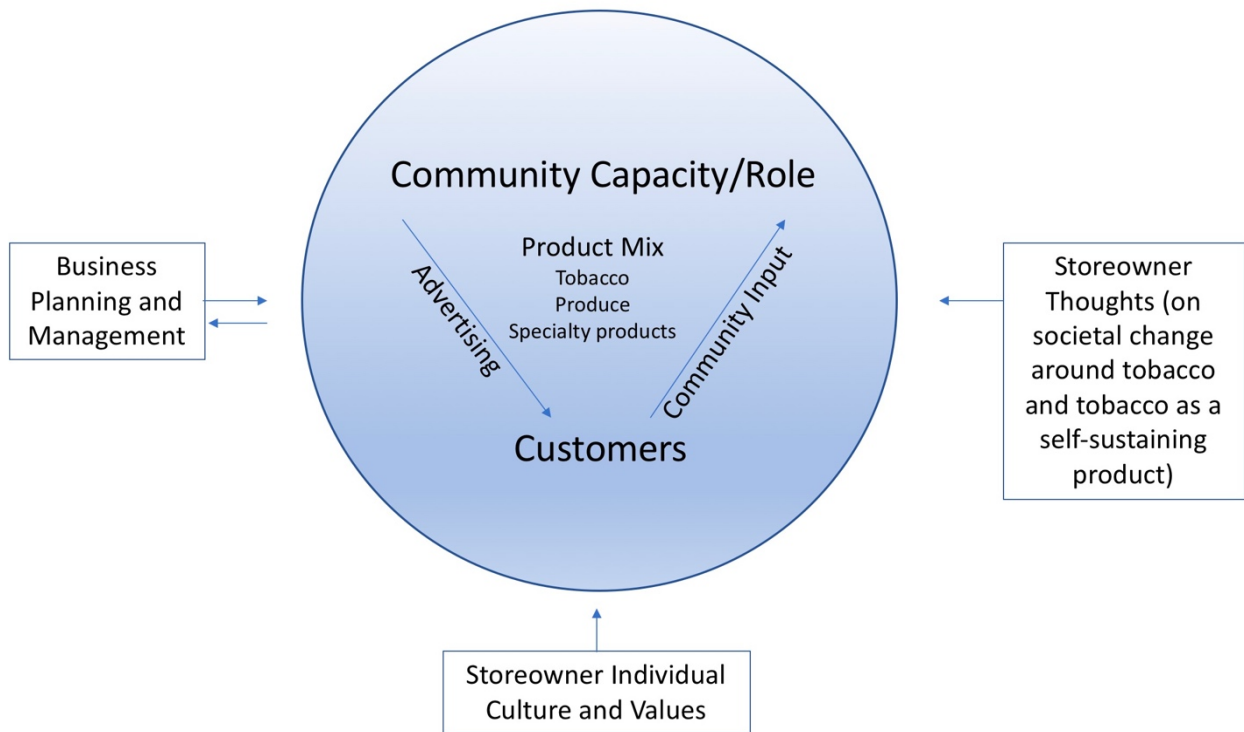


Figure 1. Model of Findings: Dynamic Relationship Between Storeowner, Community, and Product Mix at Corner Stores in Allegheny County

These findings provided illuminated the interaction storeowners in the sample have as “choice architects” of the corner store and the role that tobacco plays in the corner store. The integration of tobacco as, seemingly, a staple product in corner stores was challenged by storeowners that do not include tobacco sales in the store model because the revenue was replaced, and the foot traffic was driven by other staple products. Tobacco products are sold at lower profit margins and are not themselves inherently profitable products for storeowners.

While there are many considerations to addressing POS tobacco advertising through retailers, a key consideration is economic concerns about fear of reduced revenue due to the role of tobacco sales. Lawman et al. (2017) examined the prevalence and patterns of tobacco purchases in urban, low-income Philadelphia corner stores, finding that 87% of purchases did not include tobacco. Additionally, 61% of tobacco purchases did not include the sale of non-tobacco items, meaning that more than half of tobacco sales were exclusively tobacco products. Their findings are extremely valuable because they challenge predominant assumptions about tobacco purchases being associated with the sales of other food and beverage items in corner stores and have the ability to inform the development of policies that target tobacco sales. Retailers' perceptions about selling tobacco in their store are grounded in these assumptions, which may be preventing tobacco retailers from voluntarily discontinuing tobacco sales in their stores.⁵² These perceptions may be changed with relationship-building that informs retailers of these findings. However, it would be beneficial to examine the prevalence and patterns of purchases in Allegheny County corner stores to be specific in discussions with retailers about the purchasing habits of their customer base.

Storeowners detailed a number of opportunities and recommendations to improve healthy corner stores in the area. Storeowners conveyed opportunities to reform the corner store including marketing and advertising outreach, improving the product mix, providing produce sourcing, and engaging storeowners in the process. Storeowner recommendations to reform the corner store comprised store improvements to the façade or interior of the store, incentives for offering healthier products, recommendations for partnerships, and talking to the community. Gittlesohn et al (2012) reviewed small-store intervention trials targeted at improving the food environment and dietary behaviors associated with chronic disease risk to determine their

impact. They found that multipronged strategies positively impacted the availability/sale of healthy foods and the purchase/consumption of healthy foods, including structural modifications to infrastructure, the provision of healthy foods, and health communications designed to increase the demand of healthy food.⁵³

There is evidence of the benefit of environmental approaches to small-store interventions and the possible benefits of targeting the opportunities and recommendations brought up by storeowners in future interventions in Allegheny County. Health communication in the store can provide cues that increase the demand of healthy food. In-store signage and media in the form shelf labels and posters are point-of-purchase promotions that replace tobacco advertisements at the point-of-sale. Additionally, three trials in the Gittelsohn et al. (2012) review provided business training to storeowners on stocking and handling fresh produce, aimed at reducing profit loss.⁵³ In the results of our study, storeowners expressed difficulties with managing produce and mitigating spoilage, and the low profit margins associated with taking the risk to carry more produce; training to reduce profit loss risks could be a part of engaging storeowners in the process of reforming the corner store. There is an opportunity to engage with healthy corner store initiatives in Allegheny County to structure trainings that would be offered as a part of ongoing initiatives working toward healthier communities.

An integration of evidence-based programmatic approaches to reform the corner store (e.g, social marketing, product mix improvements, improvements to store infrastructure, and training and engaging storeowners) ought to be considered in Allegheny County to attract an expanded customer base and reform the role the corner store serves in the community. The process of combining infrastructural changes, store layout modifications, and training storeowners is referred to as a “corner store conversion.” Though these changes can cost between

\$5,000 to \$35,000, store conversions are an investment in healthy changes that are profitable and sustainable.⁵⁴

The San Francisco nonprofit group Literacy for Environmental Justice started a healthy retailer intervention called the Good Neighbor Program that provides a framework for how to reform the corner store. The program incentivized corner stores to make their businesses healthy in exchange for energy-efficient building improvements, local advertising, business training, in-store promos, cooperative buying, and participation in the branding campaign of the Good Neighbor Program. To do so, retailers were required to replace “alcohol and tobacco products with fresh produce and healthy, affordable foods,” and reduce tobacco and alcohol advertising in the store.¹² Henriksen (2018) discuss the unique role retailers have in tobacco marketing, stating:

“Focusing on the growing number of retailers that voluntarily abandon tobacco sales, more research is needed to evaluate the relative costs and benefits for their revenue and reputation. Because retail is the primary channel that the industry uses to connect with consumers, addressing these research gaps is essential to minimize industry interference with state and local retail tobacco policy activity” (pp. 235).⁸

Our research focused on the costs and benefits to abandoning tobacco sales for corner stores in Allegheny County, finding that there is the possibility that some storeowners may voluntarily abandon tobacco sales with proper programmatic support. There are a couple existing corner store initiatives in Allegheny County that provide structured programmatic support focused on reforming corner stores. The Tobacco Free Allegheny Healthy Corner Store Initiative works with storeowners in four phases to reform the corner store. Phase one involves storeowners carrying four new healthy items such as fresh oranges or apples and phase two asks the storeowners to display marketing materials in the store that guide customers to healthy

decision making. There is a \$100 incentive check provided at this point. The third phase provides store owner trainings on organizing and displaying products to emphasize healthy options, while assisting with food sourcing to build up a healthy inventory. Finally, phase four allows stores to qualify for a mini-grant to modify the store environment in small ways, such as refrigeration or shelving.⁴⁹ Just Harvest's Fresh Corners program also works with storeowners in the area to break down barriers to becoming a healthier store, by providing incentives such as coolers for refrigeration to carry more produce.

There is an opportunity to capitalize on these pre-existing programs by integrating reductions in tobacco sales and advertising into the Healthy Corner Store Initiative and Fresh Corners program. Tobacco Free Allegheny is a committed stakeholder in reducing tobacco use as part of a statewide tobacco control program, and Just Harvest is committed to building healthier communities by eliminating barriers to health and hunger. Future work should include these programs as partners in program development focused on decreasing tobacco exposure in the community and decreasing nudges to smoke in the community.

Policies aimed at decreasing exposure to tobacco have the potential to find success if storeowners are included as stakeholders in the development and implementation process. Developing objectives for POS policy strategies should involve storeowners as an integral stakeholder in the preparation and feedback process.⁵⁵ Regulation on sales and marketing of tobacco products includes a variety of upstream intervention targets. Mechanisms for implementing POS strategies through regulation exist at three levels – direct or stand-alone laws, licensing laws, and zoning laws. Stand-alone laws can be at the state or local level, such as state statutes or local ordinances. Licensing laws require that tobacco retailers obtain a license to sell tobacco products and can be implemented at the state or local government level based on the

amount of legislative authority given by the state to the local government.¹² In Pennsylvania, there are two required licenses to sell tobacco products, one for cigarettes and little cigars and another for other tobacco products, including those sold by wholesalers or dealers. The Pennsylvania Department of Revenue licenses retailers annually and ensures they satisfy all state tax liabilities.⁵⁶

A local ordinance would be complex to approach as a policy angle in Allegheny County due to the Pittsburgh City Council and Allegheny County Council structure, and further complicated by the status of the county municipalities as incorporated towns. An incorporated town is a municipality that has their own elected officials, and codified laws unique to each municipality.⁵⁷ Allegheny County has 130 municipalities, which is the second most for any county in the entire country.⁵⁸ Allegheny County has a County Council made up of fifteen elected officials, thirteen of which represent the thirteen districts in the county along with two at-large members. County Council approves and amends legislation that governs the county.⁵⁹ Pittsburgh City Council consists of nine members elected from each of the nine districts, and is responsible for introducing legislation and making laws that govern the city of Pittsburgh.⁶⁰

Licensing laws can strengthen tobacco control laws by placing restrictions on the sale of flavored tobacco products, the use of vending machines, the types of retailers that can sell tobacco products, or the location of retailers proximate to child care, schools, or other youth-centered locations.¹² For example, a municipality can structure a licensing ordinance to prohibit a license from being administered to a retailer within 1,000 feet of a youth facility.⁶¹

Another strategy to limit exposure to marketing at the POS is zoning laws, which are a mechanism to control the location, density, or number of retailers to benefit public health in an area. Zoning laws and conditional use permits (CUPs) can operate in a number of ways to restrict

and reduce exposure. CUPs are restrictions that can be developed to reduce the harm some businesses may have on the community, where the local government can make an individualized determination about the suitability of a proposed business in a neighborhood.⁶²

Zoning ordinances provide a legal tool to impact the built environment and limit tobacco exposure by requiring retailers to conduct business within certain zones or restricting them from conducting business in certain zones.¹² For example, zoning laws can lower the density of tobacco retailers in neighborhoods, or a zoning ordinance may prohibit tobacco retailers from being located in zones with areas frequented by youth.⁶¹ Adolescents who go to school in a neighborhood with a higher density of tobacco outlets have a higher smoking prevalence than adolescents that go to school in a neighborhood without any tobacco outlets.⁶³ There is evidence that proximity to tobacco retailers is a significant risk factor for smoking initiation, highlighting the key role zoning laws can have in tobacco control.³⁴ Neighborhoods that are low income or predominantly minority may benefit most from zoning ordinances due to the higher presence of tobacco advertising and a higher density of tobacco retailers.¹²

San Francisco implemented the Tobacco Sales Reduction Act in 2015, a landmark tobacco retailer licensing law, which capped the number of tobacco sales permits allowed in the city's 11 districts at 45 permits in each district. Once a district reaches the 45-permit cap through attrition, new stores selling tobacco must be at least 500 feet away from other retailers and schools.⁶⁴ The aim of the tobacco retail density policy is to reduce disparities in the density of tobacco retailers in lower income and minority communities, and to halve the number of retailers in the city over 10-15 years. In a report on the first-year outcomes, there were already noticeable impacts, as the number of tobacco retailer licenses in San Francisco decreased by 8% in the first 10 months of implementation.⁶⁵

The local nature of licensing and zoning laws makes it an unlikely policy lever to impact the 130 municipalities of Allegheny County, and is more a tobacco control option for consideration at the local level of Pittsburgh City Council. As exemplified by San Francisco's Tobacco Sales Reduction Act, there are existing tobacco control licensing and zoning rules and regulations for Pittsburgh to model after the problem is more defined in the area and stakeholders at all levels are involved. While there are policy options at the local level to decrease tobacco exposure at the POS, more research and guidance need to be done within Allegheny County to see where these options can fit into the political sphere. Zoning may be a policy approach within Pittsburgh in the foreseeable future, as it would be local within City Council and there are fewer municipalities than approaching zoning in the large context of the county. Future research in Allegheny County should engage elected officials as stakeholders in point-of-sale strategies to improve the public's health.

The study had several limitations. The interviews were intended to only begin to explore the role that storeowners play as "choice architects" of the corner store, and their role in tobacco marketing and advertising. Findings are not externally generalizable outside of the sample due to the unique perspectives of each storeowner on their respective corner store, based on the context of Allegheny County, Pittsburgh, and the neighborhood-based location of corner stores. While data saturation was achieved for many subthemes, there were a number of minority perspectives across the findings. The method of nonprobability sampling was purposive due to the nature of the research and the connection with community partners; therefore, there is some bias in choosing study subjects that were open to discussing the role of tobacco in their corner store. Results are not intended to be generalizable outside of the sample, though conclusions provide further options to explore with future stakeholder interviews. Future research would ideally

randomly sample retail stores in Allegheny County, but snowball sampling within vulnerable communities with high tobacco exposure would also provide valuable insight to inform community-based interventions.

6.0 CONCLUSION

The findings indicated that storeowners in the sample that carry tobacco products in their store are open to discussing approaches to limit tobacco sales and advertising in their store. Interviews with storeowners that leave tobacco sales out of their business plan provided insight into why and how storeowners may voluntarily discontinue tobacco sales. Programmatic support in the form of infrastructural changes, store layout modifications, and training storeowners are essential to attaining storeowner buy-in to reform the corner store. Storeowners stated the need for projection planning and “long-term handholding” to implement any array of store changes, which could be integrated into existing healthy corner store initiatives in the area. The formative research presented here is the first step to understanding business planning and the role of storeowners as choice architects of retail stores in Allegheny County. The data presented in this research is applicable to planning healthy corner store initiatives, policy development, and community engagement practices. Future research on reducing tobacco exposure at the point-of-sale in Allegheny County should engage elected officials as stakeholders in tobacco control policy, and connect storeowners, the community, and healthy corner store programs on productive approaches to reduce tobacco exposure and reform the corner store.

APPENDIX A: TOBACCO ADVERTISING AT THE POINT OF SALE



Customer views of tobacco promotions behind the counter.⁶⁶



Customer views of tobacco advertisements on the door, placed next to a slushy ad.⁶⁷

**APPENDIX B: NATIONAL, STATE AND LOCAL BLACK-WHITE SMOKING
DISPARITIES**

Location	White Adults	Black Adults	Total
United States	17.4% ¹	18.4% ¹	16.4% ¹
Pennsylvania	17.2% ¹	24.1% ¹	18.0% ¹
Allegheny County	17% ²	30% ²	19% ²

DISPARITIES^{41,39}

APPENDIX C: THEME – STORE COMMUNITY CONTEXT

Theme: Store community context		Representative quote
Subtheme A	Store location	“I think due to our kind of neighborhood-based location and the fact that our customer base is so resident-driven...” – 43 rd Avenue Market, HNT
Subtheme B	Neighborhood location	“A couple older people that will come push their cart and get their stuff for the week, so it’s nice if they don’t drive they can get here.” – Family Baker’s Store, HNT
Subtheme C	Gentrified neighborhoods	“Our bottom lines for opening were to maintain community capacity around food. So bringing rapidly gentrified neighborhoods together over common amenities... that is food.” – 43 rd Avenue Market, HNT
Subtheme D	Transportation to shop	“So they don’t have to take transportation, but they’ll take the transportation once for the big shopping because they can buy in bulk, they buy things that are on sale, they buy [inaudible], and then they economize through the month, but for the little things, for the in between shopping.” – Dynamite Market, HNT

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