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Customer characteristics and shopping patterns associated with healthy and unhealthy purchases at small and non-traditional food stores

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Abstract

Background—Small and non-traditional food stores (e.g., corner stores) are often the most accessible source of food for residents of lower income urban neighborhoods in the U.S. Although healthy options are often limited at these stores, little is known about customers who purchase healthy, versus less healthy, foods/beverages in these venues.

Methods—We conducted 661 customer intercept interviews at 105 stores (corner stores, gas marts, pharmacies, dollar stores) in Minneapolis/St. Paul, Minnesota, assessing all food and beverage items purchased. We defined three categories of “healthy” and four categories of “unhealthy” purchases. Interviews assessed customer characteristics (e.g., demographics, body-mass index [BMI]). We examined associations between healthy vs. unhealthy purchase categories and customer characteristics.

Results—Overall, 11% of customers purchased ≥ 1 serving of healthy foods/beverages in one or more of the three categories: 8% purchased fruits/vegetables, 2% whole grains, and 1% non-/low-fat dairy. Seventy-one percent of customers purchased ≥ 1 serving of unhealthy foods/beverages in one or more of four categories: 46% purchased sugar-sweetened beverages, 17% savory snacks, 15% candy, and 13% sweet baked goods. Male (vs. female) customers, those with a lower education levels, and those who reported shopping at the store for convenience (vs. other reasons) were less likely to purchase fruits/vegetables. Unhealthy purchases were more common among customers with a BMI ≥ 30 kg/m² (vs. lower BMI).

Conclusion—Results suggest intervention opportunities to increase healthy purchases at small and non-traditional food stores, particularly interventions aimed at male residents, those with lower education levels and residents living close to the store.

Keywords

customer purchases; corner store; food retail; healthy choices

INTRODUCTION

Small food stores, such as corner and convenience stores, are often the most accessible source of food for residents of urban neighborhoods in the U.S. Low-income and high-ethnic/minority urban neighborhoods in particular tend to have a high concentration of these small stores and have fewer larger supermarkets, compared to higher income and primarily White neighborhoods.^{1–2} Several studies have shown that healthy food and beverage options, such as fresh fruits/vegetables and healthy snacks, are limited in small food stores.^{3–6} while unhealthy items like high-calorie snacks, candy and sugar-sweetened beverages (SSBs) are quite common.^{3, 7}

Managers of small food stores report low customer demand for healthy items compared with less healthy options.^{8–10} Indeed, findings from studies of the nutritional quality of purchases support the notion that low-nutrient, energy dense purchases are the most common in small food stores. For example, a study in Philadelphia demonstrated that SSBs, chips, prepared food items, and pastries were the most common purchases at corner stores.¹¹ Similarly, a study in Baltimore found that corner store shoppers were much more likely than supermarket shoppers to buy soda, potato chips, and unhealthy foods overall.¹² Furthermore, two studies of bodega shoppers in New York City showed that the most commonly purchased products were SSBs, while produce purchases were uncommon.^{13–14}

Despite limited healthy options at corner stores and customers often buying unhealthy items in these venues, these stores often do stock some food and beverages of high nutritional quality. One study showed that half of urban food stores stocked at least one variety of fresh fruit or vegetables.⁶ An assessment of SNAP (Supplemental Nutrition Assistance Program)-authorized small- to mid-sized stores found that more than half carried one or more varieties of fat-free or low-fat milk, fresh or canned fruit and whole-grain rich bread.¹⁵ Given that store owners make stocking decisions in part based on customer demands,^{5, 8–9, 10} it is important to understand more about the shoppers who choose to purchase healthier items (versus less healthy items) at small urban food stores. Studies examining characteristics of shoppers at small food stores are somewhat limited and provide little information on the sociodemographic or other characteristics of these customers, such as their reasons for and frequency for shopping at the store, and how these characteristics may be associated with types of products purchased.^{11–13} Discerning purchasing patterns among different customer groups may help retailers improve promotions of healthier options, and on a broader level, assist public health practitioners in designing interventions to prompt shoppers to make healthier choices.

In the current study, we conducted customer intercept interviews at small and nontraditional food stores in a metropolitan area to assess the characteristics of shoppers based on their types of purchases, specifically healthy vs. less healthy options.

METHODS

These data were collected as part of a larger study, STORE (STaple Foods ORdinance Evaluation), which is a large-scale evaluation of a local Staple Foods Ordinance, passed by the Minneapolis City Council in 2008 and revised in 2014. Briefly, the ordinance requires licensed grocery stores to stock minimum quantities and varieties of products in 10 categories of staple foods (e.g., fruits and vegetables, whole grains, low-fat dairy) and beverages. Data for analysis for the current study were collected between July and November 2014 before the policy went into effect. The Institutional Review Board of the University of Minnesota approved this study.

Store Sample

We randomly selected food stores from lists of licensed grocery retailers for two cities, Minneapolis and St. Paul, Minnesota. The Minneapolis list was obtained from the Minneapolis Health Department and the St. Paul list was obtained from the Minnesota Department of Agriculture. Prior to the random selection of stores, those exempt from the Minneapolis policy, as well as comparable stores in St. Paul, were excluded from our sample, including: (1) stores in the core downtown commercial districts, (2) small stores not expected to stock an array of staple foods (e.g., liquor stores, specialty shops, and other small vendors such as produce stands), and (3) stores with invalid addresses. Because our evaluation was limited to stores most likely to be affected by the policy, we excluded supermarkets and stores listed in the statewide database as authorized retailers in the Women, Infants, and Children (WIC) program, since compliance with WIC standards would result in these stores already meeting the new policy standards. Of the 255 eligible stores, we randomly selected 180 for study participation. Among these 180 stores, 20 were deemed ineligible upon visiting the store (e.g., new participation in WIC), and for an additional 32 stores we could not obtain active consent for the study. Data collectors attempted recruitment at the remaining 128 stores.

Customer Intercept Interviews

Data collectors worked in pairs to conduct customer intercept interviews. Teams attempted to recruit customers for 30 minutes with a goal of recruiting a minimum of five interviews per store.¹⁶ In 22 stores, no customer was successfully recruited. To be eligible for participation, customers had to speak and understand English, be at least 18 years of age, and must have purchased a food and/or beverage. Each customer was required to provide verbal informed consent in order to participate. Data collectors recorded all food and beverages purchased including the product name, size, quantity and the price paid. Data collectors then administered a short survey that included demographic questions (age, sex, race/ethnicity, education, employment), customer-reported height and weight, and frequency of and reasons for shopping at the store. One general retailer was excluded from the analysis because it could not be included in models accounting for store type. In total, we completed 661 interviews in 105 stores (corner stores, gas marts, pharmacies, dollar stores) across the two cities.

Measures

Our main measures of interest for the current study pertained to healthy and unhealthy food and beverage purchases. We created measures for healthy food/beverage purchases based on three categories: fruits/vegetables, whole grains, and non-/low-fat dairy. Each was a dichotomous variable (1=one or more servings; 0=less than one serving). Fruits and vegetables included all types of fruit except fruit juices and all types of vegetables except fried potatoes and vegetable based savory snacks (e.g., potato chips). Whole grains included wholegrain-rich versions of all grains, flours, dry mixes, bread, rolls, crackers, pasta and cereal. Non-/low-fat dairy included low-fat (1%) and fat-free milk and cheese, and low- and fat-free yogurt. A summary measure of healthy food purchasing was also created, which was the sum of the healthy food categories for which at least one serving was purchased (range in possible values 0–3).

We created similar dichotomous measures for unhealthy food/beverage purchases based on four categories: SSBs, sweet baked goods, candy, and savory snacks. SSBs included sweetened beverages such soft drinks, fruit drinks and ready-to-drink flavored milk. Sweet baked goods included foods such as cakes, cookies, and pastries. Candy included chocolate and non-chocolate candy. Savory snacks included snack chips, popcorn, and vegetable-based savory snacks. A summary measure for unhealthy food/beverage purchasing was created by summing the number of unhealthy food/beverage categories for which at least one serving was purchased (range in possible values 0–4).

In the customer interview data, demographic measures consisted of age, gender, race/ethnicity, education level and employment status. Age was a continuous measure from which we created a three-level variable based on the frequency distribution (18–24, 25–44, and 45). The three gender response options (i.e., male, female, other) were dichotomized to male vs. female (“other” responses [n=2] were set to missing). The race/ethnicity interview item included seven check all that apply options: White, Native American, Black, Asian, Pacific Islander, Hispanic and Other that we recoded (based on frequency distributions) to White non-Hispanic, Black non-Hispanic and Other. Education level was measured as three categories: high school diploma or less, some college, and bachelor’s degree or higher. Employment status was a three-level variable: employed, unemployed/disability, or other (student, retired).

BMI was a continuous measure calculated from the participants’ self-reported weight and height responses (kg/m^2). From this measure we created a three-level variable corresponding to underweight/healthy, overweight and obese cut points¹⁷ (16–24.9, 25–29.9, and 30 kg/m^2). The interview item assessing customers’ shopping frequency at the store included eight response options ranging from more than once a day to less than once a month, which we collapsed into three categories (at least once a day, 1–6 times a week, and less than once a week). The participant’s most important reason for shopping at the store originally included ten response options (e.g., close to home, close to work, good prices), which we dichotomized into “close to destination” (i.e., close to home, work or other location) vs. “other” for analysis.

Two additional measures, store type and Healthy Food Supply (HFS) score, were obtained from separate visits to the stores by study staff. We used a tool modified from the Yale Rudd Center¹⁸ to collect data on the availability, price, and quality (for fresh fruits and vegetables) of 69 food and beverage items. The Rudd Center tool focuses on WIC-approved items, but in the current evaluation, the instrument was adapted to align with Minneapolis Staple Food Ordinance requirements and other store features of interest⁵. Data collectors indicated the type of store as either a corner/small grocery store, food/gas-mart, pharmacy, or dollar store. HFS score, a measure that summarizes availability, price, quality, and variety of inventory, was calculated for each store based on data collected on food and beverage purchases. The HFS score can range from 0 to 31 with a higher score indicating greater availability of healthy food. HFS score has previously been used to evaluate overall healthfulness in both WIC and non-WIC stores.¹⁸

Analysis

We first computed descriptive statistics for all measures. We then assessed bivariate associations between each healthy and unhealthy food category (outcome measures) and customer demographics, BMI, and frequency of/reason for shopping at store (independent measures) using Chi-square tests ($p < .05$). For each outcome measure, we estimated a multivariate multilevel logistic regression model that included all independent measures that were significant in bivariate analyses. In each regression model we included store type and HFS score as fixed effects to account for variation in stocking patterns across stores, and store identification as a random effect to account for customers nested within stores. All analyses were conducted using SAS/STAT Version 9.4 (SAS Institute Inc., Cary, NC).

RESULTS

Descriptive statistics are presented in Table 1. Overall, 11% of customers purchased one or more servings of healthy foods and/or beverages in one or more of the three categories, including 8% purchasing fruits/vegetables, 2% purchasing whole grains and 1% purchasing non-/low-fat dairy. Among the unhealthy categories, 71% of participants purchased at least one serving of unhealthy foods/beverages overall (46% purchased SSBs, 13% sweet baked goods, 15% candy, and 17% savory snacks). Nearly half of the customers were ages 25–44, 57% were male, and 47% were non-Hispanic White. About one quarter of our sample reported having a four-year college degree and 63% were employed. Approximately one-third were in each BMI category. Most customers (71%) shopped at the store at least weekly, among whom 27% shopped there daily, and 75% reported that the primary reason for shopping at the store was that it was close to a destination. The most common type of store in our sample was food/gas marts, with the least common being dollar stores. The mean HFS score was 10.5.

Bivariate analyses for healthy purchases (Table 2) demonstrated that female customers were more likely to purchase fruits/vegetables, and those with a bachelor's degree or higher were more likely than those with less education to purchase fruit/vegetables and healthy food/beverages overall. Those who reported shopping at the store because it was close to a destination were less likely to buy healthy food/beverages, compared to those who gave

another reason for shopping at the store. All independent variables that were significant in bivariate models were also significant in multivariate analysis for at least one outcome. Females had over two times higher odds than males of buying fruits/vegetable. Customers with a bachelor's degree or higher had 3.2 higher odds than those with a high school diploma or less of purchasing fruits/vegetables and 2.2 higher odds of purchasing healthy food/beverages overall. Customers who reported shopping at the store because it was close to their destination were less likely to buy fruits/vegetables, compared to those who gave another reason for shopping at the store.

Bivariate analyses for unhealthy purchases (Table 3) demonstrated that both younger and unemployed customers were more likely to buy SSBs, compared to their older and/or employed counterparts. Non-Hispanic Black customers and those with less education were also more likely to buy SSBs and unhealthy food/beverages overall. Those who shopped at the store daily, versus less frequently, were more likely to purchase candy but less likely to purchase SSBs and savory snacks. Savory snacks, SSBs and unhealthy purchases overall were more common among customers with a BMI ≥ 30 kg/m² (vs. lower BMI). Multivariate analysis showed that customers aged 44 and younger and those unemployed had approximately two times greater odds than older and employed customers respectively of purchasing SSBs. Non-Hispanic Black shoppers had higher odds of purchasing savory snacks and unhealthy foods overall compared to non-Hispanic White shoppers. Customers with a BMI ≥ 24.9 kg/m² (compared to those with a BMI ≥ 30 kg/m²) had lower odds of purchasing SSBs, savory snacks, and unhealthy foods overall.

DISCUSSION

This study is one of the first assessments of characteristics of shoppers at urban small food stores based on the healthfulness of their purchases. Consistent with other studies, healthier purchases were relatively uncommon.^{11,13–14, 19} This was perhaps not unexpected given the tendency of small food stores to stock limited healthy products.^{3–6, 15} Overall, 11% of customers purchased at least one serving of healthy foods and/or beverages (defined as fruits/vegetables, whole grains and non-/low-fat dairy).

Food purchases are likely an important reflection of overall diet quality among adults. A recent study by Appelhans et al.²⁰ showed that the nutritional quality of objectively measured food purchases was highly correlated with overall dietary quality; correlations for whole fruit and vegetables had among the highest concordance between purchases and consumption. One key finding in the current study was that those with higher education levels were more likely to purchase healthy products. Shoppers with a college degree were more likely to buy fruits/vegetables and healthy foods overall compared to those with less education. Given the correlation between purchasing and consumption, results are consistent with national trends demonstrating that adults with low education are less likely to meet dietary guidelines than adults with high education.²¹ Although small food stores can improve their stocking and promotion of healthier foods for all potential customers, making sure promotions include communities who tend to have lower education levels may be especially prudent, for example ensuring adequate outreach to local residents in lower-SES communities, as well as providing promotional materials in appropriate languages and

culturally relevant products. Other intervention approaches could focus on mobilizing local residents to advocate for healthier options in these stores. Such efforts could include higher SES customers who may already regularly purchase healthy products, but who would like to see an expansion of nutritious offerings in these stores (that would subsequently benefit all customers).

Our results showed that female customers also had a higher likelihood of purchasing fruits and/or vegetables, as did those whose primary reason for shopping at the store was something other than close proximity to their destination. Perhaps women are more likely than men to shop for their families and may prioritize bringing healthy food into the home.^{22–23} Taken together with the finding that convenient location is less a determining factor for shopping, perhaps women travel to these store as destinations in themselves and are using the stores as to buy healthy/staple foods, similar to a regular grocery store, rather than snacks. On the other hand, the finding that women are more likely than men to buy fruits and vegetables could be a manifestation of national data trends that suggest that women tend to have healthier diets than men.²¹ More research is needed to better understand these purchasing patterns. Nevertheless, promotion of healthy foods/beverages geared toward those living/working in proximity to the stores may be beneficial.

As expected, we found that unhealthy, rather than healthy, purchases were much more common among participants. Similar to other studies,^{11–12,14} we found that nearly three-quarters of purchases included at least one serving of an unhealthy food and/or beverage, with nearly half including SSBs. Shoppers with higher BMIs (compared to those with lower BMIs) were more likely to purchase unhealthy items, including SSBs, savory snacks and unhealthy items overall. Increased stocking and promotion of healthier food and beverage choices in small stores may be especially beneficial for overweight persons. All shoppers, but particularly those who are overweight, could also potentially benefit from simultaneous reductions in the stocking of, and promotions for, unhealthy food and beverages.

Younger shoppers, particularly those 18–24, were more likely than older customers to buy SSBs, which is consistent with other recent research in fast food chains.²⁴ Over half of the younger customers purchased an SSB, which is concerning given the high obesity rates among young people in the U.S.²⁵ SSBs have been shown to be a contributing factor in the obesity epidemic.²⁶ Various public efforts are underway to address the prevalence, promotion, and low prices of SSBs.^{e.g., 27} Our results demonstrate these efforts, such as providing caloric information of SSBs via posted signs^{28–29} and giving prominent placement to healthy products—rather than only unhealthy products—in stores³⁰ clearly need to be targeted to small urban food stores as well as other retail settings.

Despite the important insights our results provide, several limitations should be considered. Generalizability is limited because we conducted our study in only one metropolitan area. Additionally, in this study we provide cross-sectional results, thereby preventing any causal inferences. There are also various ways to define healthy and unhealthy foods and beverages and the definitions we chose may not include all healthy or less healthy options. Nevertheless, given the consistency of our main results with those of other studies, it is doubtful that recategorization of healthy and healthy foods would substantially alter the

finding that healthy purchases are much less frequent than less healthy ones. Finally, the low prevalence of purchasing in some of the healthy food/beverage categories prevented us in certain cases from computing multivariate models and may have created low power for detecting significant effects in bivariate and multivariate analyses.

Despite its limitations, our study presents a novel look at the characterization of shoppers at urban small food stores based on their types of purchases. Specific results point to potential public health interventions to improve access to healthy food and beverage options in urban areas. Promotions aimed at residents living close to the store and those from lower SES populations, such as incentive programs now being developed and piloted within SNAP (Supplemental Nutrition Assistance Program; <https://nifa.usda.gov/program/food-insecurity-nutrition-incentive-fini-grant-program>), may be particularly beneficial. In addition, interventions that successfully improve healthy offerings in stores will likely benefit all customers. Future research needs include longitudinal studies and studies in other geographic locations to verify and expand our results. Future research should also examine the role of promotions and impulse buys in encouraging healthier purchases, particularly when items are marketed to specific groups. Better understanding of shopping decisions can support store managers in marketing and merchandising healthier items to build consumer demand.

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Table 1

Descriptive statistics (n=661)

	Number (%) of customers
Healthy food/beverages	
Fruits/vegetables	52 (8)
Whole grains	16 (2)
Non- or low-fat dairy	8 (1)
Healthy overall	70 (11)
Unhealthy food/beverages	
Sugar-sweetened beverages	301 (46)
Sweet baked goods	89 (13)
Candy	99 (15)
Savory snacks	113 (17)
Unhealthy overall	467 (71)
Shopper demographics	
Age	
18–24	110 (17)
25–44	293 (46)
45+	256 (39)
Sex	
Female	286 (43)
Male	372 (57)
Race/ethnicity	
White non-Hispanic alone	308 (47)
Black non-Hispanic alone	237 (36)
Other	113 (17)
Education	
High school diploma or less	248 (38)
Some college	241 (37)
Bachelor's degree or higher	170 (26)
Employment	
Employed	420 (63)
Unemployed/disability	169 (26)
Other (student, retired)	71 (11)
Body mass index	
16.0–24.9	241 (38)
25.0–29.9	191 (30)
30.0+	208 (33)
Shopping frequency at store	
At least once a day	181 (27)
1–6 times a week	288 (44)
Less than once a week	191 (29)

Number (%) of customers	
Reason for shopping at store	
Close to destination	487 (75)
Other	166 (25)
Type of store	
Small grocery/corner store	194 (29)
Food/gas mart	268 (41)
Dollar store	67 (10)
Pharmacy	132 (20)
HFS score (mean/SD)	10.5 (4.4)

Table 2

Associations between healthy food purchases and customer characteristics

Purchases with at least one serving per category								
Customer characteristics	Fruits/vegetables		Whole grains		Non-/low-fat dairy ^d		Healthy food/beverages overall	
	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Multivariate OR (95%CI)
Age								
18–24	12		3		1		15	
25–44	6		3		1		9	
45+	8		2		2		10	
Sex								
Female	10	2.2 (1.2, 4.4)	2		1		13	
Male	6	referent	2		2		9	
Race/ethnicity								
non-Hispanic White	8		1		2		11	
non-Hispanic Black	5		4		0.4		8	
Other	12		3		0		13	
Education								
High school diploma or less	4	referent	3		0		7	referent
Some college	8	1.7 (0.7, 3.9)	2		2		11	1.3 (0.6, 2.6)
Bachelor's degree or higher	13	3.2 (1.3, 7.6)	2		2		15	2.2 (1.1, 4.6)
Employment								
Employed	8		3		1		12	
Unemployed/disability	7		1		1		7	
Other (student, retired)	8		3		3		11	
Body mass index								
16.0–24.9	8		2		1		11	
25.0–29.9	10		4		1		13	
30.0+	5		1		1		7	
Shopping frequency at store								
At least once a day	9		1	1.1 (0.1, 8.7)	1		11	

Purchases with at least one serving per category							
Customer characteristics	Fruits/vegetables		Whole grains		Non-/low-fat dairy ^a		Healthy food/beverages overall
	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Bivariate (percent)	Multivariate OR (95%CI)
1–6 times a week	9		4	4.6 (1.0, 22.1)	1	13	
Less than once a week	5		1	referent	2	7	
Reason for shopping at the store							
Close to destination	6	0.5 (0.3, 1.0)	2	0.5 (0.2, 1.6)	1	9	0.6 (0.3, 1.1)
Other	12	referent	5	referent	1	15	Referent

Note: Chi-square tests used for bivariate analysis except Fisher’s Exact tests used if cell sizes were too small; Multilevel regression models include independent variables significant in bivariate analyses, store type and HFS (Healthy Food Supply) score as fixed effects, and store ID as random effect

^aMultivariate model not computed because insufficient power due to a small number of customers purchasing non-/low-fat dairy items

Bold type indicates p< .05 (the upper limit of some bolded ORs are presented as 1.0 however the actual figure is <1.0 and when rounded to one decimal point becomes 1.0)

Table 3

Associations between unhealthy food purchases and shopper characteristics

Purchases with at least one serving per category									
Sugar-sweetened beverages			Sweet baked goods ^d			Candy		Savory snacks	
Unhealthy food/beverages overall			Unhealthy food/beverages overall			Unhealthy food/beverages overall		Unhealthy food/beverages overall	
Shopper characteristics	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Multivariate OR (95%CI)	Bivariate (percent)	Multivariate OR (95%CI)
Age									
18–24	53	2.2 (1.2, 3.7)	19	12		18		75	
25–44	51	1.7 (1.1, 2.6)	12	13		20		73	
45+	36	referent	13	18		14		66	
Sex									
Female	43		14	18		17		72	
Male	47		13	13		17		70	
Race/ethnicity									
non-Hispanic White	41	referent	11	15		11	referent	65	referent
non-Hispanic Black	52	0.9 (0.6, 1.4)	14	16		24	2.1 (1.2, 3.5)	80	2.0 (1.3, 3.3)
Other	44	0.9 (0.5, 1.6)	17	13		20	2.2 (1.1, 4.1)	68	1.2 (0.7, 2.1)
Education									
High school diploma or less	53	1.3 (0.8, 2.2)	15	15		19		75	referent
Some college	46	1.2 (0.8, 2.0)	12	17		18		73	1.1 (0.7, 1.8)
Bachelor's degree or higher	35	referent	13	11		14		59	0.8 (0.5, 1.3)
Employment									
Employed	43	referent	14	15		17		69	
Unemployed/disability	56	1.8 (1.2, 2.7)	12	12		20		76	
Other (student, retired)	35	1.0 (0.5, 2.0)	13	20		11		68	
Body mass index									
16.0–24.9	42	0.6 (0.4, 0.9)	14	12		12	0.5 (0.3, 0.9)	66	0.6 (0.4, 1.0)
25.0–29.9	42	0.6 (0.4, 1.0)	11	20		19	0.9 (0.5, 1.5)	68	0.6 (0.4, 1.1)
30.0+	53	referent	15	13	21		referent	79	referent
Shopping frequency at store									
At least once a day	38	0.6 (0.4, 1.0)	13	21	1.4 (0.7, 2.6)	12	0.7 (0.4, 1.3)	66	
1–6 times a week	44	0.8 (0.5, 1.2)	16	13	0.8 (0.5, 1.5)	17	0.8 (0.5, 1.4)	70	
Less than once a week	55	referent	11	12	referent	22	referent	75	
Reason for shopping at store									
Close to destination	45		13	15		17		70	