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Unexpected Neighborhood Sources of Food and Drink: Implications for Research and Community Health

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Abstract

Introduction—Studies of neighborhood food environments typically focus on select stores (especially supermarkets) and/or restaurants (especially fast-food outlets), make presumptions about healthfulness without assessing actual items for sale, and ignore other kinds of businesses offering foods/drinks. The current study assessed availability of select healthful and less-healthful foods/drinks from all storefront businesses in an urban environment and considered implications for food-environment research and community health.

Methods—Cross-sectional assessment in 2013 of all storefront businesses ($n=852$) on all street segments ($n=1,253$) in 32 census tracts of the Bronx, New York. Investigators assessed for healthful items (produce, whole grains, nuts, water, milk) and less-healthful items (refined sweets, salty/fatty fare, sugar-added drinks, and alcohol), noting whether items were from food businesses (e.g., supermarkets and restaurants) or other storefront businesses (OSB, e.g., barber shops, gyms, hardware stores, laundromats). Data were analyzed in 2017.

Results—Half of all businesses offered food/drink items. More than one seventh of all street segments (more than one third in higher-poverty census tracts) had businesses selling food/drink. OSB accounted for almost one third of all businesses offering food/drink items (about one quarter of businesses offering any healthful items and more than two thirds of businesses offering only less-healthful options).

Conclusions—Food environments include many businesses not primarily focused on selling foods/drinks. Studies that do not consider OSB may miss important food/drink sources, be

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incomplete and inaccurate, and potentially misguide interventions. OSB hold promise for improving food environments and community health by offering healthful items; some already do.

INTRODUCTION

Studies of neighborhood food environments overwhelmingly have focused on food stores (especially supermarkets) and restaurants (especially fast-food outlets).^{1–3} Receiving less attention have been other kinds of businesses, yet the availability of food/drink items from other storefront businesses (OSB) may be substantial.

For example, some studies have considered gas marts, pharmacies, and dollar stores to demonstrate the frequent offering of foods/drinks.^{4–8} At least one study additionally focused on less-intuitive food/drink sources like hardware stores, automobile shops, furniture stores, and apparel outlets, and likewise demonstrated that food/drink offerings are common.⁹ Other work has examined food/drink availability at check-out counters in a variety of storefront retail.^{10–12} Taken together, these studies suggest pervasive availability, especially of less-healthy energy-dense convenience items (e.g., candy, cookies, chips, and soda).

The availability of more-healthy items is somewhat less clear. Although some research has considered a range of food/drink offerings through local retail, including healthy items like fruits, vegetables, whole grains, and milk,^{6,8,10} few studies have focused specifically on healthy fare.^{4,5,7} It is common for research only to focus on less-healthy offerings^{9,12} or only to focus on very select storefronts.^{4–8,10}

Nonetheless, it is apparent that the availability of healthy items extends beyond just food stores and restaurants.^{4–8,10} As such, studies that do not include a range of possible sources of healthy and less-healthy foods/drinks may be incomplete and lead to inaccurate conclusions and misguided interventions. For instance, if healthy items are widely available, selectively ignoring certain sources may result in incorrect determinations of food deserts (neighborhoods without access to healthy food) and in misdirected efforts to address gaps that do not exist. Likewise, if less-healthy items are more ubiquitous than generally appreciated,^{6,8–10,12} selective strategies to restrict availability might miss the most important sources to target. The whole problem of food swamps (areas in which less-healthy-food sources exceed healthier options)^{13,14} might be understated and go unaddressed.

The current study assesses the availability of healthy and less-healthy foods/drinks from a full range of storefront businesses. Investigators conducted assessment in a diverse urban—setting with widely varying retail density and in sociodemographically dissimilar communities—and considered implications for food environment research and community health.

METHODS

Study Sample

The current study focused within two large geographic areas in the Bronx, New York (Figure 1)—United Hospital Fund areas, used by the New York City Department of Health and

Mental Hygiene for analytic purposes.¹⁵ The two areas differed substantially in sociodemographics (based on the U.S. Census Bureau's American Community Survey¹⁶) and in eating behaviors and rates of diet-related diseases (based on New York City's Community Health Survey¹⁷). The areas were chosen for a broader study to assess neighborhood-level differences in food environments. For that study, investigators selected census tracts having the highest proportions of residents below the Federal poverty level¹⁸ ($n=15$, all in southwest United Hospital Fund area) and the census tracts having the lowest proportions of residents below the Federal poverty level ($n=17$; all in the southeast United Hospital Fund area) to ensure large differences. It was presumed that differences in poverty rates would correlate with differences in neighborhood environments and that choosing census tracts at the extremes of residential poverty would result in marked variation in both street and retail density. It was also assumed that there would be marked variation in demographics, diet, and disease rates among individuals living in the census-tract communities.

For the current study, the 32 selected census tracts were considered together as a single diverse environment (Figure 1). All public streets within these census tracts became the sample for assessment.

Measures

Three trained investigators conducted assessments on all 1,253 street segments (sections of a street between cross streets) in the 32 selected census tracts. Assessments proceeded by walking the length of each side of each street segment to identify any storefront businesses (including free-standing vending machines). All assessments occurred during regular business hours (generally 10:00AM–4:00PM), June–August 2013.

For each identified business, investigators recorded the name, location, type of business, and whether any foods/drinks were offered. Investigators used signage, window displays, menus/menu boards, product displays, and inquiries of staff to determine whether any foods/drinks were for sale and if so, what types.

Details on food/drink categories and examples appear in Table 1. Categories were developed through prior work in food environment assessment.^{19–23}

Of interest was the presence (yes/no) of any of the following food categories: fruits and vegetables, whole grains, nuts, refined sweets, and salty/fatty fare. Drink categories included: water, milk, 100% juice, diet drinks, sugar-added drinks, and alcohol. When grain-based foods were offered and the availability of whole-grain items not apparent, investigators asked specifically about possible whole-grain options. Likewise, if sugary drinks were available and the availability of healthful drinks not apparent, investigators asked specifically about healthful-drink options.

Consistent with the Dietary Guidelines for Americans,²⁴ the healthful food categories were fruits and vegetables, whole grains, and nuts. The healthful drink categories were water and milk. Less-healthy food categories were refined sweets and salty/fatty fare. Less-healthy drink categories were sugar-added drinks and alcohol. Given current scientific debate about

100% juice^{25,26} and diet drinks,²⁷ these beverages were considered neither healthful nor less-healthful.

For data collection and management, the study used a secure, web-based application: Research Electronic Data Capture (REDCap), version 4.5.1. REDCap provides an intuitive interface for validated data entry, audit trails for tracking data manipulation, and automated export procedures for downloads to statistical packages.²⁸

The principal investigator, having conducted earlier food-environment assessments,^{19–22} including studies using REDCap,^{23,29} trained other members of the research team in data collection procedures. Three team members practiced procedures by observing 20 storefront businesses outside of the study area—first independently, then as a group.

For independent assessments, there was near-perfect agreement with regard to business name, business location, business type, and food/drink offerings for the 20 selected storefronts (agreement 98.7%). Substantive errors were due to missed items (e.g., one investigator missing a vending machine full of less-healthful snacks at the back of a hair salon).

For the group assessment, no items were missed. There was essentially perfect agreement between the group-collected data and data collected by the principal investigator as the standard for comparison. The only differences were in the examples investigators chose to record for available foods/drinks (e.g., the group noting “whole-wheat bagel” and the principal investigator noting “oatmeal” for whole-grain item available at a donut shop).

Statistical Analysis

In assessing the different types of foods/drinks offered, investigators used two different units of analysis: (1) street segments and (2) businesses. For businesses, analyses additionally distinguished between food businesses (i.e., outlets primarily focused on selling food/drink items, like grocery stores, supermarkets, specialty food stores, restaurants, and free-standing vending machines) and OSB (i.e., all other storefront retail).

Investigators used Stata, version 12.1 for frequency distributions and percentages. Data were analyzed in 2017.

RESULTS

Table 2 shows food/drink offerings in the Bronx by street segment and by storefront businesses. Numbers and percentages described below come from Table 2, or from calculations based on table values unless otherwise noted.

Food/drink items were available on 14.7% of all street segments. In the 15 higher-poverty census tracts (those in the southwest Bronx; Figure 1), 36.7% of street segments offered some food/drink (data not shown). These higher-poverty census tracts had fewer than half as many street segments as the 17 lower-poverty census tracts, but had more than twice as many storefront businesses, resulting in a retail density that was nearly five times as great

(Figure 1). Despite differences in the absolute numbers of businesses though, the proportion of businesses offering foods/drinks was similar in both groups of census tracts (about 50%).

For the entire sample of all 32 census tracts, more than half of all businesses (50.7%) offered some food/drink—100% of food businesses and 24.5% of OSB. Given OSB ($n=556$) were almost twice as numerous as food businesses ($n=296$), OSB represented 31.5% of all storefronts offering food/drink overall. Among the OSB that offered food/drink were auto shops, banks, clothing outlets, department stores, dollar stores, furniture shops, gyms, hardware stores, laundromats (example in Figure 2), professional offices, and salons (footnote b of Table 2 provides additional examples).

When foods/drinks were available from businesses, there were healthier options in 81.7% of cases. Although 92.2% of food businesses offered healthful options, only 58.8% of the OSB that offered food/drink did. Examples of healthful options available from OSB included pieces of fresh and dried fruit, applesauce, canned vegetables, granola bars, whole-grain cereal, whole-wheat pretzels, peanuts, tree nuts, milk, and bottled water. OSB represented 22.7% of all businesses offering healthful options across all census tracts.

For less-healthy items, OSB represented 70.9% of all businesses offering only these items (e.g., sodas, energy drinks, candies, baked sweets, and snack chips). There were only four street segments on which less-healthy foods/drinks were the only available options (0.3% of the entire sample of street segments). Food businesses offered only less-healthy options in 7.8% of cases. OSB offered only less-healthy options in 10.1% of cases overall, but when considering just the OSB that offered any food/drink, the offering of only less-healthy options occurred in 41.2% of cases.

With regard to specific food categories, less-healthy foods (refined sweets, salty/fatty fare) were more prevalent than healthful foods (fruits and vegetables, whole grains, and nuts), both by street segment and by storefront business. Refined sweets (e.g., cookies, gumballs, lollipops, candy bars, other candies) were disproportionately more available from OSB.

For drinks, water was available more often from OSB than were sugar-added drinks. Of course, water would have been available for free in most restaurants (presumably with the purchase of some other item), so the lower proportion of businesses having water for sale does not fully reflect water's total availability among food businesses. Milk was consistently more available than alcohol (by street segment, by food business, and by other business) although in some cases only available as an additive for purchased coffee or tea. Sugar-added drinks were the most available beverages by street segment and by storefront businesses.

DISCUSSION

This study is the first to examine the availability of healthful and less-healthy foods/drinks from a full range of storefront businesses. Findings more fully characterize total food/drink availability in an urban environment.

As other researchers have suggested, food/drink in the local environment may indeed be “ubiquitous” .⁹ In the current study, foods/drinks were available from half of all storefront businesses. About one quarter of OSB—including auto shops, banks, clothing outlets, gyms, hardware stores, laundromats, salons, and others—had food/drink items for sale. Given their prevalence in the environment, OSB represented nearly one third of all storefronts offering food/drink overall.

Sources of less-healthy items predominated, but at least some healthy options were available from more than four fifths of the businesses that offered any food/drink. OSB offered healthy items in well over half of the instances that they offered any food/drink, and they accounted for nearly one quarter of all the businesses offering healthy options. Given these findings, it is likely that determinations of food deserts would be inaccurate if OSB are not considered.

Businesses offering only less-healthy items were in the minority (outnumbered more than four to one by businesses offering at least some healthy options). Nonetheless, all businesses offering food/drink made less-healthy items available. When less-healthy options overwhelm healthier choices, those conditions define a food swamp,¹³ and such swamps might be underappreciated if all storefronts are not considered, and OSB are ignored. Prior research by others has shown more purchases of unhealthy items than healthy ones from OSB.³⁰ OSB accounted for more than two thirds of the cases of storefronts offering only less-healthy items in the current study. Refined sweets stood out as the category offered most often.

A point of nuance for the current study is that it included only food/drink items available for purchase. Notable, though, is that nine beauty salons offered free candy and one furniture store offered free coffee (that could be customized with added milk and sweeteners). These items were not included in analyses; findings do not change meaningfully if they are.

Analyses in the current paper do include 20 businesses at which whole grains (e.g., brown rice, whole-wheat bagel, whole-grain pasta, and whole-wheat wraps) were available only upon asking and not obvious from menus, menu boards, signage, or displays. These businesses contributed to reported proportions of healthy foods in both areas, but would be “true exposures” in the food environment only for customers thinking to ask about unadvertised options. If uncounted in analyses, the removal of such items from healthy-food totals would only magnify the predominance of less-healthy items reported.

The current study has several strengths. First, investigators sampled in a diverse urban setting—with widely varying retail density in sociodemographically dissimilar communities—including all storefront businesses (totaling more than 850) on all streets (totaling more than 1,250). Second, data collection considered both foods/drinks. Third, investigators assessed the availability of different varieties of both healthy and less-healthy items, and did not make problematic assumptions about healthfulness (e.g., assuming supermarkets are “healthy” food sources when they may be the predominant source of less-healthy items³¹). Fourth, food/drink availability was assessed using two different and complementary units of analysis: street segment (what’s available on a given street) and business (what’s available

from a given storefront). Fifth, for businesses, investigators further refined categorization to distinguish between food businesses (the focus of most prior studies) and other business (neglected by most prior studies).¹ The expansion in assessment represents an advance in scale and scope for food environment research.

Limitations

A notable limitation of the present study is the cross-sectional design. It is conceivable that findings could change with time. Indeed, some businesses that were closed at the time of assessment (e.g., some bars, night clubs, and table-service restaurants) would have been open at other times and would have offered foods/drinks as well. Still, the number of such businesses was small (less than 5% of businesses overall) and would not have changed findings meaningfully under any scenario. Other researchers have performed impressive longitudinal assessment of food environments,³² but such work considered only a very limited range of food stores and restaurants and failed to capture OSB (whose contribution might be quite substantial as the present study demonstrates). A study that included a full range of food sources (on a sample of streets from communities in present study), found there were nearly 30% more businesses offering food in 2015 than in 2010 (Lucan et al, Albert Einstein College of Medicine, as-yet unpublished observations, 2017).

Another limitation of the present study is that categorizations were generous with regard to healthfulness (e.g., counting sweetened trail mixes, sugared nuts, and popcorn as healthful items). Counting relatively minor ingredients like toppings for sandwiches and pizzas was also generous and there was no measure of the relative amount of healthful versus less-healthful items. Analyses considered only the number of food sources, not the number of food/drink items being offered (or purchased or consumed). Anecdotally, less-healthful items might have far exceeded healthier options in both quantity and variety in many, if not most, cases (e.g., a small basket of fresh fruit on the counter at a donut shop, or the single water option in a cooler full of sugary drinks). Thus, presented findings for healthful items should be interpreted as liberal, again underscoring the preponderance of less-healthful availability reported.

Although the data do not permit comment about generalizability with regard to other areas of New York or to other cities, the availability of less-healthful items from a wide variety of storefront retailers is consistent with prior literature looking at 19 U.S. cities.⁹ Also, the findings from the current study show consistency across highly different Bronx neighborhoods (those in ethnically and socioeconomically dissimilar communities having a nearly fivefold difference in the number of businesses on a given street). Other research has shown that foods/drinks offered by a specific type of other business (drug stores) do not vary by neighborhood income.⁸ The current study showed similar proportions in food/drink availability from OSB in spite of differing poverty rates between communities.

CONCLUSIONS

This study showed that foods/drinks were available from many surprising types of urban storefronts beyond the select stores and restaurants assessed in most studies. Less-healthful

items predominated over healthier ones (across businesses and by street), but at least some healthful options were available in most cases.

Moving forward, food-environment studies should include OSB. Ignoring these businesses could mean missing more than one third of all sources of food/drink, possibly leading to incomplete findings and incorrect conclusions at best, and misguided interventions and wasted resources at worst.

Future studies should also consider additional sources of food/drink in neighborhoods, like street vendors and farmers markets.^{1,19,21,22} Delivery services may also be important,³³ as well as all the messaging to consume foods/drinks, within stores^{7,34} and in neighborhoods.^{29,35,36} Product placement, price, and promotion across a range of possible food/drink sources are likewise relevant considerations that merit further investigation.^{37–39} Additionally, studies should assess how all of these food environment exposures may influence people's purchasing and consumption patterns.

For communities, recognizing the substantial availability of foods/drinks from OSB will be important. OSB may already represent about one quarter of all storefront sources of healthful items. More of the businesses already offering food/drink might be persuaded to carry healthier options, both to reduce the number of food deserts (areas lacking healthier food) and to minimize food swamps (areas overwhelmed by junk food). Shelf-stable items (e.g., dried fruits, nuts, whole-grain snacks like crackers and trail mixes, vegetable chips, and bottled water) may hold particular promise for OSB, and for improving neighborhood food environments that are currently predominated by less-healthful foods/drinks.⁴⁰

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SL conceived the study, performed the literature review, designed the data collection protocol, oversaw primary data collection, performed all analyses, and drafted the manuscript, including tables and figures. AM assisted with analyses and data interpretation, created the map, and helped revise the manuscript. JS, DY, and LS performed primary data collection, assisted with data analysis and interpretation, and helped revise the manuscript. CS oversaw and assisted with data analysis and helped revise the manuscript.

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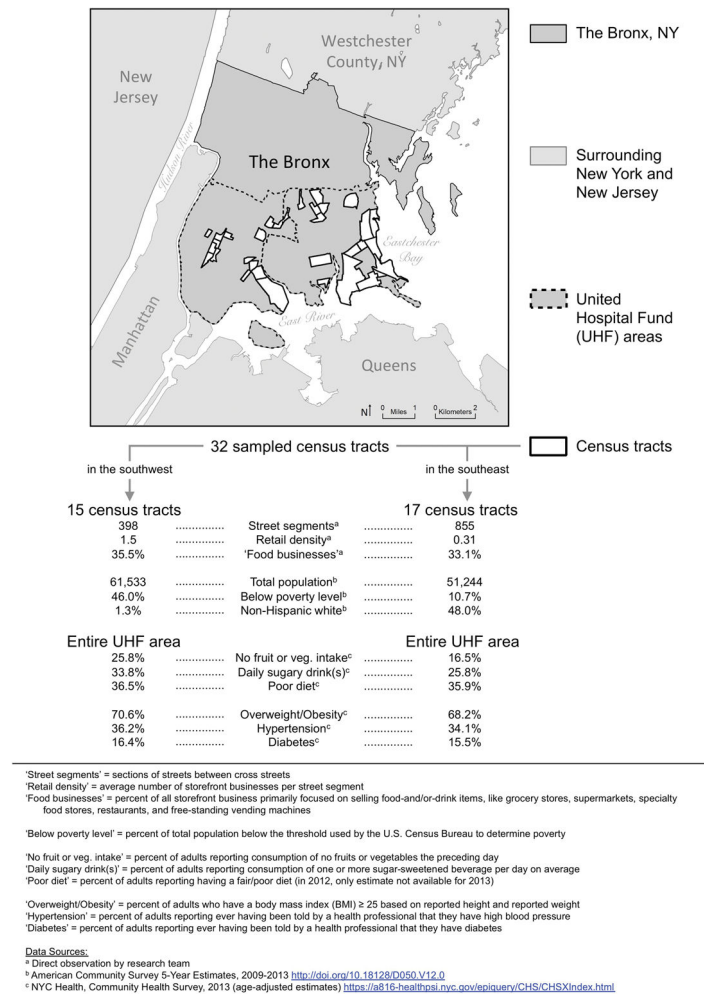


Figure 1. Map of the Bronx and the 32 census tracts containing the 1,253 sampled street segments.



Figure 2. Food/drink were often found in many surprising places (e.g., sandwiches in a laundromat).

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Table 1

Food/drink Categories and Healthfulness, With Example Items and Items That Were Not Examples

Category (healthfulness)	• Example items	• Items that were NOT examples
Foods		
Fruits and vegetables (healthful)	<ul style="list-style-type: none"> • Fresh produce (e.g., apples, mangos, cabbage, peppers, broccoli) • Dried fruits and vegetables (e.g., raisins, prunes sun-dried tomatoes) • Frozen fruits and vegetables (e.g., frozen berries, frozen spinach) • Jarred or canned items (e.g., canned peaches, canned peas) • Other processed produce (e.g., applesauce, salsa, kimchi) • Prepared produce (vegetable entrees and side dishes—e.g., veggie bowls, stir fries, casseroles, sandwiches, fajitas, soups/stews, salads) • Toppings (e.g., lettuce and tomato on sandwiches, peppers and onions on pizza) 	<ul style="list-style-type: none"> • Fruit-flavored candies—counted as refined sweets • Baked sweets featuring fruits or vegetables (e.g., apples in pie, carrots in cake, raisins in cookies)—counted as refined sweets • Fruit-containing jams, jellies, preserves, syrups, condiments—counted as refined sweets • Fried starchy snacks and sides (e.g., potato chips, French fries, onion rings, plantain chips, tostones/maduros, samosas, egg rolls)—counted as salty/fatty fare
Whole grains (healthful)	<ul style="list-style-type: none"> • Brown rice • Oatmeal or other whole-grain cereal • Whole-wheat or sprouted-grain breads and baked goods • Whole-grain pastas • Whole-corn tortillas • Granolas and trail mixes • Popcorn 	<ul style="list-style-type: none"> • White rice—uncounted in assessment • Refined baked goods and sweets (i.e., cakes, cookies, pastries, white bread or any item with enriched flour as main ingredient)—counted as refined sweets or salty/fatty fare, depending on if sweet or savory • Refined cereals (e.g., cream of wheat, corn flakes)—uncounted in assessment
Nuts (healthful)	<ul style="list-style-type: none"> • Tree nuts and nut butters • Peanuts and peanut butter • Soy nuts and soy butter • Seeds (e.g., sunflower, pumpkin, flax) 	<ul style="list-style-type: none"> • Nut oils (e.g., peanut oil, sesame oil)—uncounted in assessment • Nut milks (e.g., almond milk, soy milk)—counted as sugar-added drinks if sweetened • Ingredients in sweets or other baked goods (e.g., peanuts in peanut brittle or peanut butter cookies, pecans in pie, sesame seeds on sweet-and-sour fried chicken)—counted as refined sweets or salty/fatty fare, depending on if sweet or savory
Refined sweets (less healthful)	<ul style="list-style-type: none"> • Baked sweets (e.g., cookies, cakes, brownies, donuts, muffins, pastries, pies) • Candies • Frozen novelties (e.g., ice creams, sherbets, sorbets, ices) • Jams, jellies, preserves, syrups • Sugary breakfast cereals 	<ul style="list-style-type: none"> • Naturally sweet produce—counted as fruits and vegetables • Sweet foods that are mostly whole grains or nuts (e.g., honey roasted peanuts, granolas, and trail mixes)—counted as whole grains or nuts

Category (healthfulness)	•	Example items	•	Items that were NOT examples
Foods				
Salty/Fatty fare (less healthful)	•	Bagged snacks that are not whole-grain (e.g., potato chips, corn chips, pork rinds)	•	Salty and/or fatty foods that are mostly whole produce, whole grains, or nuts (e.g., sautéed vegetables, granolas, salted nuts)—counted as fruits and vegetables, whole grains, or nuts
	•	Processed meats (e.g., hotdogs, sausages, cheese steaks, cold cuts/deli meats, jerky, bacon, hamburgers)		
	•	Ethnic fast foods (e.g., tacos, empanadas, fried rice, fried dumplings, ramen, egg rolls, samosas, maduros/tostones, pastelitos)		
	•	Other fried foods (French fries, fried chicken, onion rings, mozzarella sticks, fried fish)		
Drinks				
Water (healthful)	•	Plain water or carbonated water	•	Vitamin waters or other waters with sweeteners—counted as sugar-added drinks
	•	Unsweetened flavored water or carbonated water		
Milk (healthful)	•	Unsweetened cow’s milk (e.g., whole, 2%, 1%, or skim)	•	Flavored milk (e.g., chocolate milk, strawberry milk)—counted sugar-added drinks
	•	Other animal milks (e.g., goat’s milk)	•	Plant milks (e.g., soymilk, almond milk, rice milk, coconut milk)—counted as sugar-added drinks
			•	Muscle milk and milk-protein-based sports drinks—counted sugar-added drinks
100% juice (neither healthful nor less healthful)	•	Any 100% fruit or vegetable juice	•	Fruit-flavored drinks (e.g., strawberry milk, fruit punch, grape soda, etc.)—counted as sugar-added drinks
	•	Blended whole fruits or vegetables	•	Smoothies and shakes made from ingredients other than fruits or vegetables (e.g., sweetened yogurt, ice cream, flavored syrups)—counted as sugar-added drinks
Diet drinks (neither healthful nor less-healthful) Sugar-added drinks (less healthful)	•	Diet sodas and other low-calorie or calorie-free drinks, including flavored waters and seltzers	•	Skim milk—counted as milk
	•	Industrially manufactured sugary drinks (e.g., soda, sports drinks, energy drinks, vitamin waters, sweet teas, fruit drinks, flavored milks)	•	Plain water—counted as water
	•	Drinks prepared on site (e.g., smoothies, shakes, floats, lattes)	•	100% juices or whole-fruit/vegetable smoothies—counted 100% juice
			•	Plain milk—counted as milk
Alcohol (less healthful)	•	Any ethanol-containing drinks (e.g., beer, wine, sangria, spirits, malt liquor, hard ciders, cocktails)	•	Spice extracts (e.g., vanilla flavor)—uncounted in assessment
			•	Cough syrups and alcohols not intended for human consumption (e.g., rubbing alcohol)—uncounted in assessment

Table 2

Overall Food/Drink Offerings in the Bronx by Street Segments and by Storefront Businesses

Sample characteristic	Street segments n (%)	All storefront businesses n (%)	Food businesses ^a n (%)	OSB ^b n (%)
Totals/denominators	1,253 (100.0)	852 (100.0)	296 (100.0)	556 (100.0)
Offering any food/drink	184 (14.7)	432 (50.7)	296 (100.0)	136 (24.5)
Offering only less healthful items	4 (0.3)	79 (9.3)	23 (7.8)	56 (10.1)
Offering any food	173 (13.8)	386 (45.3)	273 (92.2)	113 (20.3)
Offering any fruits or vegetables	144 (11.5)	274 (32.2)	253 (85.5)	21 (3.8)
Offering any whole grains	130 (10.4)	206 (24.2)	181 (61.1)	25 (4.5)
Offering any nuts	135 (10.8)	225 (26.4)	182 (61.5)	43 (7.7)
Offering any refined sweets	165 (13.2)	362 (42.5)	251 (84.8)	111 (20.0)
Offering any salty/fatty fare	156 (12.5)	303 (35.6)	261 (88.2)	42 (7.6)
Offering only less-healthful foods ^c	6 (0.5)	79 (9.3)	13 (4.4)	66 (11.9)
Offering any drink	172 (13.7)	368 (43.2)	287 (97.0)	81 (14.6)
Offering any water	164 (13.1)	336 (39.4)	266 (89.9)	70 (12.6)
Offering any milk	131 (10.5)	201 (23.6)	180 (60.8)	21 (3.8)
Offering any 100% juice	140 (11.2)	229 (26.9)	204 (68.9)	25 (4.5)
Offering any diet drinks	153 (12.2)	283 (33.2)	240 (81.1)	43 (7.7)
Offering any sugar-added drinks	166 (13.2)	339 (39.8)	270 (91.2)	69 (12.4)
Offering any alcohol	123 (9.8)	160 (18.8)	152 (51.4)	8 (1.4)
Offering only less-healthful drinks ^d	2 (0.2)	31 (3.6)	20 (6.8)	11 (2.0)

Note: Some foods (e.g., live chickens, live goats, and fresh eggs, as offered from two livestock vendors) and drinks (e.g., coffee or tea) fell outside of the categorization scheme for specific food/drink items but were included in totals for Offering any food, Offering any drink, or Offering any food/drink.

^aFood businesses = a subset of all storefront businesses including various grocery stores, supermarkets, specialty food stores, restaurants, and free-standing vending machines (outlets primarily in the business of selling food/drink); Food businesses did not offer food in 100% of cases due to bars, night clubs, coffee shops, liquor stores, and vending machines that only offered drinks.

^bOSB = other storefront businesses, a subset of all storefront businesses comprised of outlets not primarily in the business of selling food/drink even though they might offer various kinds and quantities. Among OSB offering food/drink were: auto repair and auto sales shops; banks and check cashing outlets; clothing, shoe, apparel, and jewelry stores; department stores; dollar stores and discount stores; electronics stores, furniture shops; gas stations, gift shops; gyms and fitness centers; hardware stores, impound/towing facilities, laundromats and dry cleaners; newsstands; pawn shops; pharmacies; phone stores; pet shops; professional offices (medical, legal, real estate, etc.); salons and barber shops; storage facilities; tanning salons; tattoo parlors; and tobacco shops.

^cOnly less healthful foods = only refined sweets or salty/fatty fare; no healthful food options (i.e., no fruits or vegetables, whole grains, or nuts)

^dOnly less-healthful drinks = only sugar-added drinks or alcohol; no healthful drinks (i.e., no water or milk). Note that 100% juice and diet drinks, were considered neither healthful nor less-healthful