INTRODUCTION

The Buffalo store is a small, family-owned corner store and gas station that opened in 2007 on the East Side of Buffalo, New York. The founder, a refugee that came to the United States as a teenager, remains the sole owner of the store.

- The store strives to provide a variety of products, including both healthier food options like fruits and vegetables and traditional corner store offerings such as snacks, soda, and coffee.
- Expanded to a second location in 2018, the two stores share a staff of about 24 employees.
- Participated in the Buffalo Healthy Corner Store Initiative (HCSI) since 2016.
- Store mission: To offer products that meet the needs of its customers, particularly healthier food options.

Store Setting

The store is located in the East Side of Buffalo, New York in a lower-income residential area which is primarily African American. The flagship store is located on a heavily trafficked street that crosses through much of the East Side and is on a major transit route. Despite being one of the largest neighborhoods in the city of Buffalo, the East Side has just one major chain supermarket that serves the surrounding communities and few grocery stores with healthy food options. The Buffalo store is 6,500 square feet, situated on a large lot at the corner of a major intersection, has a parking lot, and gas pumps in front of the store. The store is in an area that is considered low-income and low access which is defined as a significant number of residents are at least one mile from a supermarket and there is a low level of vehicle ownership. The store's normal operating hours are 24/7, year-round.

The store was formerly a Supplemental Nutrition Assistance Program (SNAP) vendor and is currently reapplying for vendor status; the owner hopes to be able to participate in the Women, Infant and Children (WIC) program in the future. Despite not being a "big box" store, the owner feels that his customers keep coming back to the store for the variety, the convenience, and increasing availability of fresh produce. The store staff feel that the owner's commitment to meeting customers' needs, quality customer service, and deep ties with the community are why customers are drawn to the store. The store is perceived as a reputable black-owned establishment, and the community welcomes the opportunity to support "one of their own."

Methods		
Data Collection Tool	Number of Data Points	
NEMS-S Short Form	3	
Sales Recall	3	
In-Depth Interviews		
Staff	3	
Community Stakeholders	3	
News Articles	6	
Other	Photos	

STORE OPERATIONS

Procurement

Food procurement decisions are made by the store owner, with a focus on incorporating customer feedback and increasing healthier food options. Staff and stakeholders view these priorities as longstanding but feel that healthfulness has been increasingly emphasized since the pandemic. The store sources fresh produce from two local aggregator/wholesalers and the remaining food items (e.g., shelf-stable) from a national food distributor or a locally owned distributor. The owner feels that the prices are competitive with the local suppliers and prefers to source as much as possible from the local distributors.

Pricing and Promotions

The markup applied to food items varies, but the owner estimates the sales price to be 10-20% above cost. However, due to widespread shortages and a drastic rise in procurement prices during the pandemic, higher prices have been passed down to customers. A stakeholder that supplies produce to the store attributes the rise in costs to a breakdown in the food supply chain due to the pandemic, such as a loss of truck drivers, causing freight costs to soar.

The owner chooses to position the cooler stocking healthier options, such as fruit cups and fresh produce, directly in front so customers will see it as they enter the store. Product promotions are advertised through in-store signage, mainly for produce items. General store promotions are done through local radio stations and community newspapers and flyers.

COMMUNITY ENGAGEMENT

The owner and staff have cultivated a positive reputation in the community by taking time to develop meaningful relationships with customers. The owner also has an active and longstanding presence in the surrounding community, particularly within the faith-based and Eritrean communities, and has received several awards for his community involvement. In addition, the following community engagement strategies were used:

- Ongoing partnerships with local radio stations.
- A regular online presence. Held community listening sessions when considering expanding.
- The store hosts regular community events outside of the store.
- The store hosts an annual birthday celebration honoring the owner's lifelong hero, Nelson Mandela.

Deep engagement with the community also includes stakeholders, who describe their relationships with the store owner as uniquely personal compared to other partnerships.

Stakeholders perceive the store as beneficial to the community and acknowledge the owner's openness to guidance and collaboration and his commitment to having a positive impact through helping residents live healthy and fulfilling lives. Longstanding relationships with local stakeholders have facilitated procuring and offering more healthy food options, navigating regulatory issues, and adapting during the COVID-19 pandemic.

AVAILABILITY AND PRICES OF HEALTHY FOODS

A Healthy Food Availability Index (HFAI) score was calculated from the NEMS-S evaluation conducted at three time points at the store. Out of a possible 30 points the store scores ranged from 11-12 for the months of June – July 2021. The majority of points earned were attributed to whole wheat bread options, 100% juice, low-sugar cereals, non-meat protein, and several varieties of fresh fruits and vegetables. The HFAI Scores for each time point are presented in **Table 1**

Category (Max score)	T1 June 2021	T2 July 2021	T3 July 2021
TOTAL (54)	17	16	19
Availability (30)	12	11	12
Price (18)	-1	-1	1
Quality (6)	6	6	6

Table 1: NEMS-S Total and Sub-scores

Although lower than average HFAI scores for supermarkets and grocery stores, the Buffalo store HFAI score is comparatively higher than convenience stores in similar lower-income minority communities such as Baltimore City with mean HFAI scores of 1.76,1 but similar to rural convenience stores found in rural Maryland with mean HFAI scores of 11.1.2 Compared to a prior NEMS-C evaluation conducted by the University at Buffalo in 2017 for local program evaluation for HCSI, there has been an increase in availability of fresh produce. In May 2017, the store had 3 fresh fruit and 2 fresh vegetable varieties stocked whereas in 2021 The store consistently stocked 4 fresh fruit varieties and a range of 3-5 fresh vegetable varieties.

The quality sub-score calculated from the NEM-S was a 6 (maximum score is 6) for each timepoint indicating that the fresh fruit and vegetable options were consistently acceptable quality over time. The price sub- score had more variation between months and ranged from -1 to 1 (price sub-score range -9 to 18); the lower score for pricing was attributed to 1.) inability to compare prices between options due to missing stock or 2.) the less healthy options for certain food categories were more affordable (e.g., whole wheat bread was priced higher than white bread). However, at one time point healthier cereal was priced lower than the less healthy counterpart.

The food categories that experienced the largest increases in sales over time from pre- pandemic to July 2021 were fresh produce, cereal, beverages, and milk/dairy. Three of these food categories positively contributed to the store HFAI score: fresh produce, cereal, and beverages. This points to the possibility of an increase in purchases of healthier items; however, the observed increase in sales in these categories could be due to purchases of unhealthy versions of cereal and beverages. Furthermore, the milk HFAI score for milk was zero to do the absence of low-fat milk versions.

Therefore, increases in milk sales would likely be of higher fat milk products. The owner attributed any increase in sales to an increase in traffic, inventory,

and an improved display case for produce. There were no sustained or significant decreases in sales for any food category. Although, when there was a short-lived decrease in sales such as with baked goods (e.g., muffins), it was attributed to customers shifting their interest to healthier options.

REGIONAL IMPACT OF COVID-19 PANDEMIC

New York state was among the first states that imposed stay-at-home orders3 (MMWR Citation). The city of Buffalo is located within Erie County and as of August 2021 the county had roughly 93,000 COVID-19 cases and 1,900 COVID-19 related deaths with peak transmission occurring between March and May of 2020.4,5 The owner and staff witnessed the community impact of the pandemic through engagements with customers that lost friends and family due to the virus.

The New York State Governor imposed lockdowns to limit viral transmission on March 21, 2020, allowing only essential businesses and activities to remain open. This remained in place until a phased re-opening began May 15, 2020. Participation in the SNAP program rose 61.8% between March and April of 2020 in New York State.⁶

OPERATIONAL CHANGES DURING THE PANDEMIC (2020 – July 2021)

Although the store was considered an essential business and could remain open during the state mandated lockdowns, the store reduced hours due to loss of staff and customers during the height of the pandemic. Due to supply chain issues, product availability was impacted as well. However, the owner shifted his stocking priorities to include household items and masks. Despite the nationwide phenomenon of panic buying of these items, the store did not raise prices. Although the owner was unable to reduce prices on food items, the Buffalo store offered price reductions on gas during the pandemic.

Store safety protocols included requiring masks be worn by all customers and staff, social distancing, adjusting the store layout to create more space to spread out, and plexiglass barriers to protect employees while cashing out customers. Signage upon entry and within the store indicated safety protocols to customers.

There was little pushback from customers, with most customers understanding the situation and accepting the store changes.

The partnership with HCSI allowed for additional health and nutrition education support to take place within the store during the pandemic. In addition, produce eligibility for \$5 "Health Bucks" vouchers, also sponsored by HCSI, was expanded beyond fresh produce to include healthy beverages, low-sodium, or low-sugar canned fruits and vegetables. During the pandemic, the store partnered with area stakeholders including churches and the HCSI coordinator to serve as a USDA food box distribution site. In addition to the produce boxes, the store distributed free masks to community members.

LESSONS LEARNED

Successes

- The store's commitment to the HCSI since 2016 facilitated a shift to procuring and selling increasing amounts of fresh produce.
- There has been an increase in customer demand and noticeable shifts in purchasing towards healthier options such as grab-and-go fruit and water.
- In partnership with the local HCSI, the store has been able to offer \$5 "Health Bucks" vouchers that are distributed in the community and redeemable at participating HCSI stores, including the store, for fresh fruits and vegetables.
- The store continued to bring the community together, despite the onset of the pandemic.
- Interested vendors were invited to participate at these community events and have included local business owners, community service providers, and a farmers' market.
- Prior to the pandemic, the store worked closely with the district's state assembly member's office to navigate hurdles such as environmental remediation and local regulations and ordinances. This partnership facilitated a swift response to the COVID-19 pandemic. A stakeholder from the assembly member's office served as a valuable liaison between store owners and government.

Challenges

The store also faced several challenges:

- Prior to the onset of the pandemic, the chief challenge for the store was the financial risks associated with opening a small business.
- Although largely a success, the receipt of state funding for the expansion project was delayed due to being a reimbursement award and then further delayed due to the pandemic.
- Raising awareness of store participation in the HCSI has been a challenge over the years.
- Establishing prices for fresh fruits and vegetables that are competitive and affordable while remaining financially viable can be an intractable struggle.
- With the onset of the pandemic, the store experienced a significant loss of staff but has been able to slowly rebuild over the past year.
- Due to widespread closures and residents staying in their homes at the peak of the pandemic, the store suffered a significant loss of customers and sales for several months in 2020.
- Widespread shortages among distributors lead to difficulties with procurement and a drastic increase in wholesale/distributor prices.
- The store vendor status for SNAP was revoked in May 2021 based on alleged violations of SNAP regulations. The owner filed an action in the Western District of New York challenging he revocation which was settled to the mutual satisfaction of both the USDA and the store. They are currently in the process of reapplying but given that the store serves a sizable lower-income population, many of whom participate in the SNAP program, the impact on customers' buying power has been substantial.

FUTURE DIRECTIONS

The store owner envisions further expansion, particularly growing the fresh food options, and has a goal of becoming a co-operative market. Expansion would involve securing additional equipment (e.g., coolers) and possibly an additional

location. However, the owner would like guidance on how to expand in a fiscally responsible way. More short-term plans for the store include regaining SNAP vendor status, building a consistent brand, increasing promotions and engagement with customers through social media, and exploring the possibility of aggregating food from small vendors and delivery to surrounding neighborhoods.

Community stakeholders that have worked with the store identified several areas of opportunity for the store, including expanding the store's reach to neighboring schools and churches, adjusting prices of healthy options to be more competitive, building awareness of the store participation in HCSI, and re-building a strong and reliable staff.

IMPLICATIONS

This case study provides the experience of a local corner store with longstanding participation in a local healthy corner store initiative. The store is a testament to the value of community engagement and its impact on a store's longevity and resilience; business decisions are informed by community needs and the level of their engagement is an additional metric of success besides profit.

This case study also demonstrates the potential for small corner stores to leverage community partnerships to realize a store's mission of increasing stock and sales of healthy food options as well as adapt during crises. However, there are unmet needs to support the store and similar corner stores looking to expand or modify their business model, streamline product pricing, and enhance marketing efforts and community reach. Future evaluation should also assess bureaucratic barriers to certifying and remaining in good standing as a SNAP vendor.

ACKNOWLEDGEMENTS

This case study is part of a seven-city series looking at how healthy food retail has been impacted by COVID-19 with funding support from RWJF Healthy Eating Research.

This case study report was authored by Christina Kasprzak PhD, MS, Man Ching Tsai, and Lucia Leone, PhD at University at Buffalo. We thank all of the interviewees for their participation in this case study. We also thank Alex B. Hill, MA, Wayne State University, for food retail assessment and data collection guidance, coordination, and analysis.

REFERENCES

- 1. Franco, M., et al. (2008). "Neighborhood Characteristics and Availability of Healthy Foods in Baltimore." <u>American Journal of Preventive Medicine</u> **35**(6): 561-567.
- 2. Campbell, E. A., et al. (2017). "Healthy Food Availability Among Food Sources in Rural Maryland Counties." <u>Journal of Hunger & Environmental Nutrition</u> **12**(3): 328-341.
- Moreland A, Herlihy C, Tynan MA, et al.
 Timing of State and Territorial COVID- 19
 Stay-at-Home Orders and Changes in Population
 Movement United States, Marc1-March 31,
 2020. MMWR Morb Mortal Wkly Rep
 2020;69:1198- 1203. DOI:
 https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a2.htm?s cid=mm6935a2 w
- 4. (https://covid19-buffalony.hub.arcgis.com/ https://covid19tracker.health.ny.gov/views/ NYS-COVID19-Tracker/NYSDOHCOVID-19Tracker-Map?%3Aembed=yes&%3Atoolbar=no&% 3Atabs=n0)
- 5. https://www.nysac.org/files/Coronavirus%20Economic%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20-%20Impact%20Impact%20-%20Impact%20Im