

ROCK COUNTY
**FOOD
ENVIRONMENT
REPORT**



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Public Health

Prepared by Rock County Public Health Department

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Executive Summary

The Rock County Public Health Department (RCPHD) has prepared this detailed Food Environment Report looking at the key factors that positively and negatively affect residents' access to food. This report will provide key insight and data related to factors around food access, chronic disease prevention, and recommendations for improving the overall food environment. The data for this report was acquired by utilizing three different assessment measures. These measures included a community-based survey, healthy retail assessment, and secondary data sources.



Recommendations

1

Increase food access opportunities within identified healthy food priority areas (HFPAs)

1.A

Develop food access initiatives targeting healthy food priority areas on Janesville's southside

1.B

Develop food access initiatives targeting healthy food priority areas within Beloit

2

Identify areas for improvement in the acceptance of WIC and SNAP benefits throughout Rock County

3

Increase and promote Rock County restaurants and fast-food establishments offering healthier food choices and participating in the kids live well program

3.A

Increase healthy eating and education opportunities within Rock County schools

4

Repeat the food environment report every two years

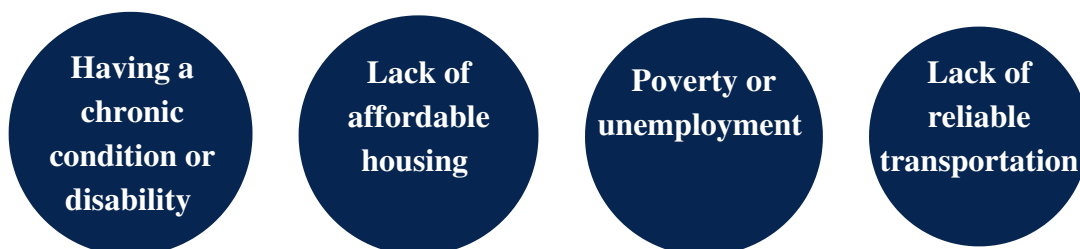
Introduction

A healthy food environment sets a precedent for families to live their healthiest lives. The overall food environment considers access to healthy foods, the quality of food within the area, and the proximity residents live to food establishments. Establishing a healthy food environment that allows every Rock County resident access to healthy food is a top priority when achieving optimal health. Social Determinants of health are "conditions in the environments where people are born, live, learn, play, worship, and age" (Healthy People, 2022) (25). Social Determinants of Health impact access to healthy food and knowing the intersections of food access with the five Social Determinants of Health (economic stability, education, social/community context, health and healthcare, and neighborhood/built environment) is crucial to any effort to improve the food environment. With a descriptive picture of the issues Rock County residents face, the county can address these underlying factors that affect the food security status of many residents. Although this report does not account for every community member, it gives us a view of some critical issues that community members face.

A key concern when looking at the food environment is food insecurity. Food insecurity is defined as "the lack of consistent access to enough food for every person in a household to live an active and healthy life" (Feeding America, 2023) (8). Although food insecurity data is a snapshot in time, anyone at any time or even multiple times in life can experience food insecurity. The National Institute for Health Care Management (NIHCM) Foundation found that although the causes of food insecurity are complex, the causes generally fall into a variety of different categories which can be seen below in Figure 1.

Concerns about food security were raised in the 2021 Rock County Community Health Assessment. This assessment included community conversations where county residents rated food access as the fifth most important issue in the county. Key informants (community leaders) ranked food insecurity as eighth in importance. Because many factors play into whether a resident experiences food insecurity, RCPHD is committed to furthering food access initiatives to address this multi-factorial issue and working to implement strategies to improve the food environment in Rock County.

Figure 1: Factors that Influence Food Insecurity

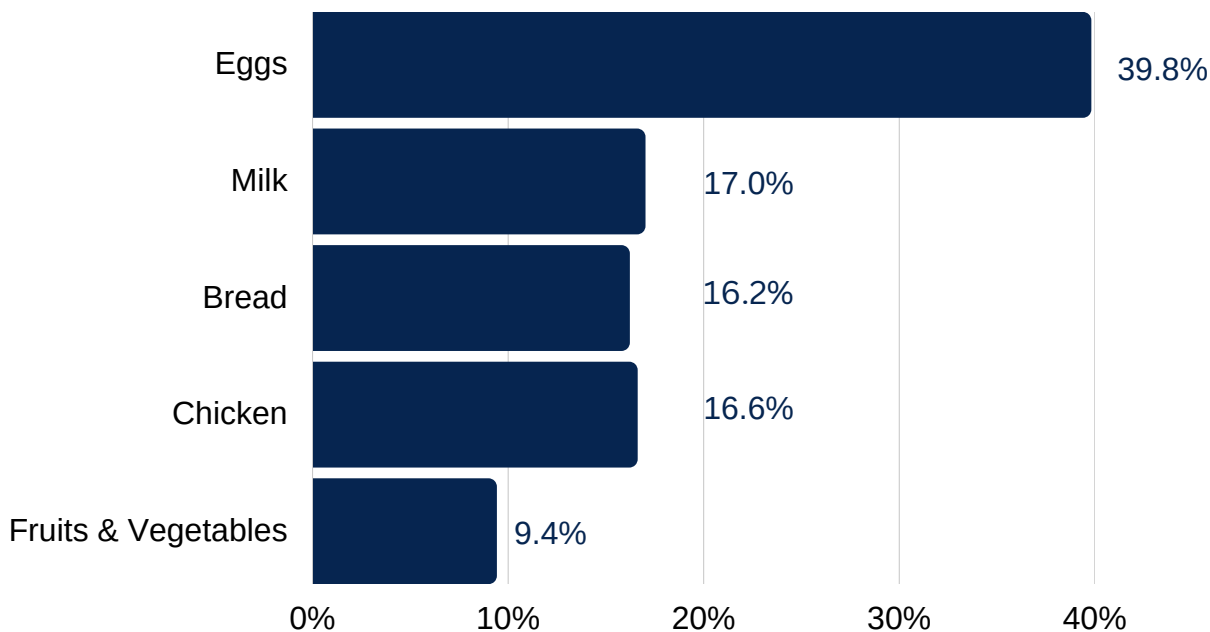


(NIHCM Foundation, 2022) (24)

A preliminary assessment of Rock County's Food Environment was conducted over the summer of 2022. The assessment conducted a public opinion survey and a validated survey of area food retailers. The data acquired provided insight into the Rock County Food Environment and critical findings that allowed for the development of recommendations to improve community food access county-wide.

Personal circumstances, including one's financial situation, along with economic factors affecting food prices, play a key role in the ability of community members to access healthy foods. The average annual food budget shortfall was just over 8 million dollars for Rock County in 2020 (Feeding America, 2020) (20). This yearly budget shortfall is the additional dollar amount that food-insecure individuals report needing in order to buy the appropriate amount of food for their family. It is important to note that this information came from the early stages of the COVID-19 pandemic and was not impacted by the current supply chain issues and increasing inflation that began taking place in 2021. Although the budget shortfall number for 2022 has not been released, inferences can be made based on the descriptive data collected regarding the impacts the budget plays on residents within Rock County. According to the NIHCM Foundation, overall food costs spiked 11.4% in 2022 (NIHCM Foundation, 2022) (24). Eggs and milk prices increased the most, with egg prices also increasing due to Avian Influenza outbreaks which is an indicator of how fragile our food system can be.

Figure 2: Food Price Increases from 2021 to 2022



(NIHCM Foundation, 2022) (24)

This report provides direction for county-wide food and nutrition-related initiatives in addition to providing guidance to track improvements to the overall food landscape and evaluate food access within Rock County. In addition to this report, the creation of a local nutrition collaborative to expand the identified recommendations and facilitate the implementation of initiatives developed through the report findings is crucial to improving Rock County's food environment. Food access and security are complex issues that require community partnerships to find solutions. This report is the first step in addressing identified concerns and initiating change.

Background

The relationship between food insecurity and obesity is complicated, as noted in the Food and Research Action Center Report on Hunger and Obesity (FRAC, 2021) (11). Food insecurity has strong ties to chronic conditions, such as obesity. This connection occurs due to the challenges of poverty, such as lack of access to healthy foods, limited resources in the community, and greater exposure to fast-food marketing, which all play a role in rising obesity rates (FRAC, 2021) (11). Rock County's obesity rate of 35% is greater than both the state (33%) and national (32%) rates (County Health Rankings, 2023) (6). Furthermore, Rock County's obesity rate has continued to increase since 2017, while neighboring counties have managed to sustain lower rates. Over the past six years, Rock County, on average, had an obesity rate 6.5% higher than neighboring counties (Green, Walworth, Jefferson, and Dane). This increased obesity rate and the recent COVID-19 pandemic's impact on the community underscores the need for a comprehensive report to evaluate the current state of the food environment in Rock County.

Figure 3: Cycle of Food Insecurity and Chronic Conditions

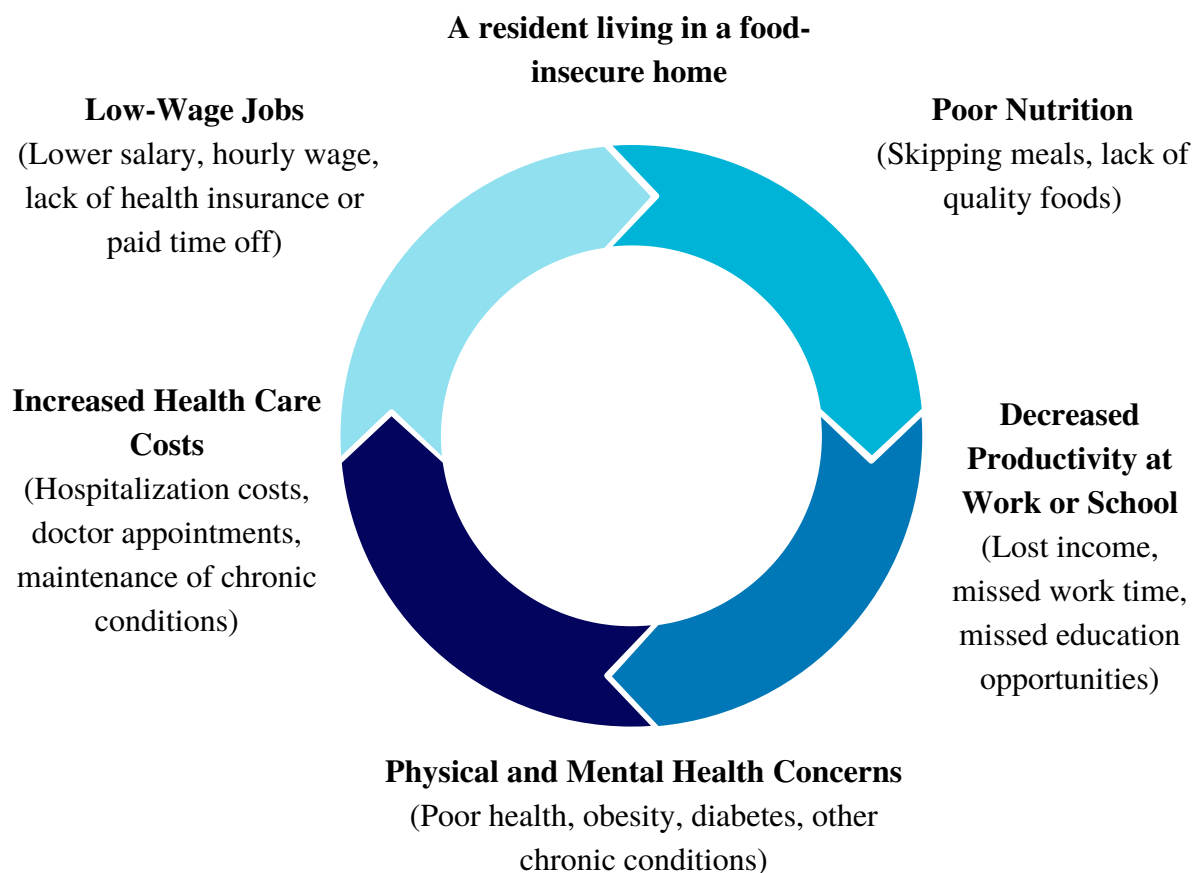


Image adapted from Project Bread Content (17)

The food environment report details the factors related to accessing food and the strengths and weaknesses of the food system in Rock County, as identified through a county-wide food environment survey. Conducting this survey allowed community members to provide meaningful context to the specific food and nutrition issues, and this input has provided a key platform for improvement recommendations for the County.

Components of the Food Environment

A food environment is a complex system that incorporates many different aspects into the production of consumable food (Hueston & Mcleod, 2012) (14). The overall make-up of a food environment considers available stores, fast-food restaurants, other food establishments, and other available food sources such as local farms and emergency food resources. In addition to sources, the environment encompasses the perceptions and barriers that community members experience. The way a person acquires food is part of an intensive cycle that includes aspects such as pre-production, production, post-production, consumption, and loss/waste. In addition to these main components, other external forces play into the food environment, such as climate change, infrastructure, culture, and more. The graphic below illustrates the movement of food through the system to reach customers.

Figure 4: Food System Components



(Food Systems Thinking, 2017) (19)

Identifying disruptions in the movement of food from source to consumer is one way to look at access to food and food insecurity in Rock County. Areas lacking access to adequate and nutritious food are identified as high-priority areas for intervention. To determine priority areas, an assessment of the number of accessible stores, quality of food items, price, and safety in the surrounding neighborhood was conducted. This type of assessment is complementary to the food environment survey and was completed in July 2022 for Rock County.

Creating a sustainable and positive food environment will be essential for providing community members with a healthy place to live and grow. New families, businesses, and opportunities can help to cultivate areas and create a positive food environment. This will enable children and adults alike to adopt and maintain healthy habits that can make lasting impacts on their overall health outcomes.

Methods

The Rock County food environment was evaluated through three methods that were conducted May 2022 through July 2022.

Anonymous Community Based Survey

Anonymous survey was available to community members via an online platform with an additional paper version available by request. The survey was provided in English and Spanish with questions tailored to a fourth-grade reading level. Quantitative, qualitative, and public comment data findings were analyzed.

Healthy Retail Assessment

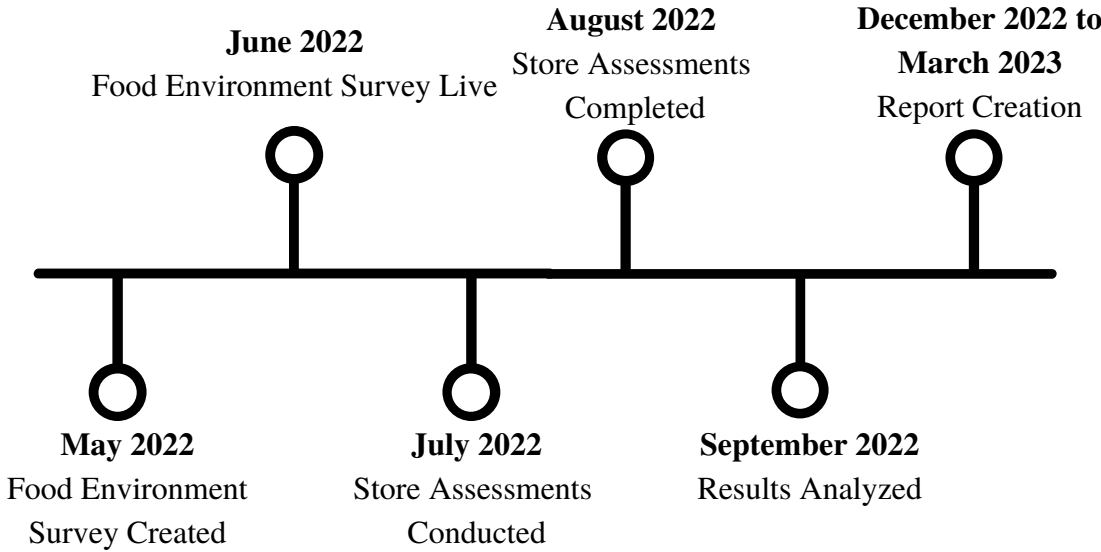
The Healthy Retail Assessment created by the University of Wisconsin-Madison, Division of Cooperative Extension, and Wisconsin Department of Health Services was implemented to assess grocery, box, and corner stores throughout Rock County. Assessments were implemented by two RCPHD student interns. These assessments were used to analyze community accessibility qualities and inventory availability.

Secondary Community Data Sources

External secondary data sources such as County Health Roadmaps and Rankings detailing county level data was utilized for county comparison and insight, along with census data, state wide data, and other peer reviewed sources.

These tools and assessment measures allow us to obtain a descriptive picture of the barriers and circumstances Rock County residents are facing.

Assessment Timeline



Results

Food Environment Survey

The overall environmental assessment was a community-based survey to give us both qualitative and quantitative data. Qualitative data came from open-ended responses provided in the survey, while quantitative data came from multiple-choice questions. The goal of this assessment was to get valuable input on community members' experiences when it comes to obtaining healthy foods. Over the assessment period, 252 community members responded to the food environment survey. Responses were broken down to represent ten zip codes across Rock County. Most respondents came from the zip codes 53546 in Janesville and 53511 in Beloit.

The gender breakdown of the survey indicated that the survey was taken primarily by females within the county. Out of the total respondents 211 identified as female, while the remaining respondents identified as male or non-binary.

Respondent Location	Percent of Responses
Janesville	69.7%
Beloit	26.6%
Evansville	0.08%
Milton	0.07%
Edgerton	0.04%
Clinton	0.01%
Orfordville	0.004%

Key Findings

I. Those who rent their home indicated a lower presence of food available in their households and were also less likely to report ease in purchasing fruits and vegetables.

Among respondents, residents who resided in rental housing had a lower presence of food available in the home. This was especially relevant for the categories of milk, fruit, and vegetables, all of which are typically less available in local corner stores. Fresh meats, dairy, and produce are typically available in wider varieties and frequently at better prices in larger retail markets and box stores. Travel to these stores often requires other accessibility components such as a car, money for public transportation, or even access to public transportation, such as a bus route within walking proximity. This key finding is associated with the ease of purchasing fruits and vegetables.

Throughout the county, respondents indicated this prevalent difference between those who rent and own their homes. There are a multitude of concerns that could be contributing to this occurrence of access issues. A connection can be made that homeownership can be associated with a higher socioeconomic status. Achieving a higher socioeconomic status and having the ability to choose where one's home is located geographically when one buys property can allow people the opportunity to take into account proximity to certain amenities, such as food. While renting, renters are at the liberty of what units are available within their price range, not necessarily the location, due to shortage of housing within Rock County.

II. As income increases, so does the presence of food in the home.

Also, as mentioned in the previous finding, the survey confirmed that for Rock County residents, as one's income increases, so does the presence of food in the home. When considering a resident's budget, one of the most flexible areas is groceries. Although food is necessary to survive, it is often viewed as a flexible expense within a budget due to the ability to manipulate how much one purchases and what items. This can lead to purchasing less food or lesser quality foods in order to reduce costs. In the past year, fruit and vegetables prices rose by 9.4%, milk by 17.0%, and eggs by 39.8% (NIHCM Foundation, 2022) (24). Families and individuals with higher incomes are better equipped to absorb rising food costs.

In comparison, lower-income residents may have to choose between food items or forgo some food purchases to offset rising costs. In combination with grocery costs, access to grocery stores that carry a variety of fresh items affects the presence of food in the home. For instance, a traditional grocery store may have a greater variety and higher quality produce, versus box or corner stores, which may have limited available produce available for purchase.

A predictor for how income plays a role in one's ability to afford essentials is based off of the livable wage classification. In Rock County, as seen in Figure 5, a livable wage for a single adult is \$16.26 per hour. This is the wage that allows a single adult to be able to comfortably afford all necessities. In the case of a two adult, two child home, the livable wage is increased by eight dollars and forty-four cents an hour. Once a residents income falls below the livable wage threshold, affording essential food items and other living expenses becomes more pressing. It is important to note that despite the livable wage estimated as \$16.26, the state minimum wage is \$7.25 per hour in Rock County.

In Figure 5, the Rock County livable wage is displayed based on a 40-hour work week. Although some residents have one job that provides the living wage within a 40-hour work week, a portion of residents must work two part-time jobs, which in some cases may still not equal the same income as one full-time position. In addition, working multiple jobs increases transportation costs that must be accounted for. Additionally, with the increased transportation cost, this alone could limit opportunities to shop for healthy food.

Figure 5: Rock County Livable Wage

Wage Classification	1 Adult 0 Children	2 Adults 2 Children
Living Wage	\$16.26	\$24.70
Minimum Wage	\$7.25	\$7.25

(Living Wage MIT, 2023) (12)

Figure 6: Comparison of Rock County Livable Wage and Typical Expenses Annually

Expense Category	1 Adult 0 Children	2 Adults 2 Children
Food	\$4,010	\$11,812
Childcare	\$0.00	\$20,913
Housing	\$8,513	\$11,272
Transportation	\$5,356	\$14,164

(Living Wage MIT, 2023) (12)

III. Out of the total responses, 57.6% of respondents indicated eating out 1-2 times per week.

Rock County has disproportionately more restaurants than grocery stores within its geographical jurisdiction. Data collected through the Rock County Community Health Assessment indicated that there are 1.5 grocery stores per 10,000 residents. According to Health Compass Milwaukee, Wisconsin counties with a ratio of 1.9 or more grocery stores are in the top 25% while counties with ratios at or below 1.4 are in the bottom quartile (Health Compass Milwaukee, 2016). This is a significant indication of a lack of convenient and readily available outlets to purchase fresh groceries. It has been noted by other counties that there "are strong correlations between grocery store density in an area and the nutrition of a residents' diet" (Be Well Placer Community Dashboard, 2020) (21). Varied options for residents to obtain nutritious foods will increase the likelihood of residents having a balanced diet to prevent the onset of chronic disease. Rock County has seen a grocery store decrease per 1,000 residents by 8.88% (USDA ERS, 2020) (26). Conversely, as restaurants are located in nearly every census track throughout the county, eating out becomes a convenient and frequently less nutritious way to obtain food. In Rock County, 57.6% of residents reported eating out 1-2 times per week.

Healthy Retail Assessment

The healthy retail assessment was conducted using an evidence-based tool called the Healthy Retail Assessment Tool developed by the University of Wisconsin-Madison, Division of Cooperative Extension and the Wisconsin Department of Health Services. The tool quantifies both characteristics and products offered by the corner and grocery stores and helps identify areas for improvement. To provide a detailed comparison, the tool was used in all settings. In total, 20 stores (nine corner stores, nine grocery stores, and two box stores) were evaluated.

Store Definitions

Grocery Store	A full-service food retailer that offers a wide selection of food and beverages
Corner/Convenience Store	A store with extended operating hours in a convenient location, stocking a limited range of household goods and groceries
Box Store	A retail store that offers a variety of products (food and non-food) and is usually part of a chain of stores

Stores were also assessed for presence of the following:

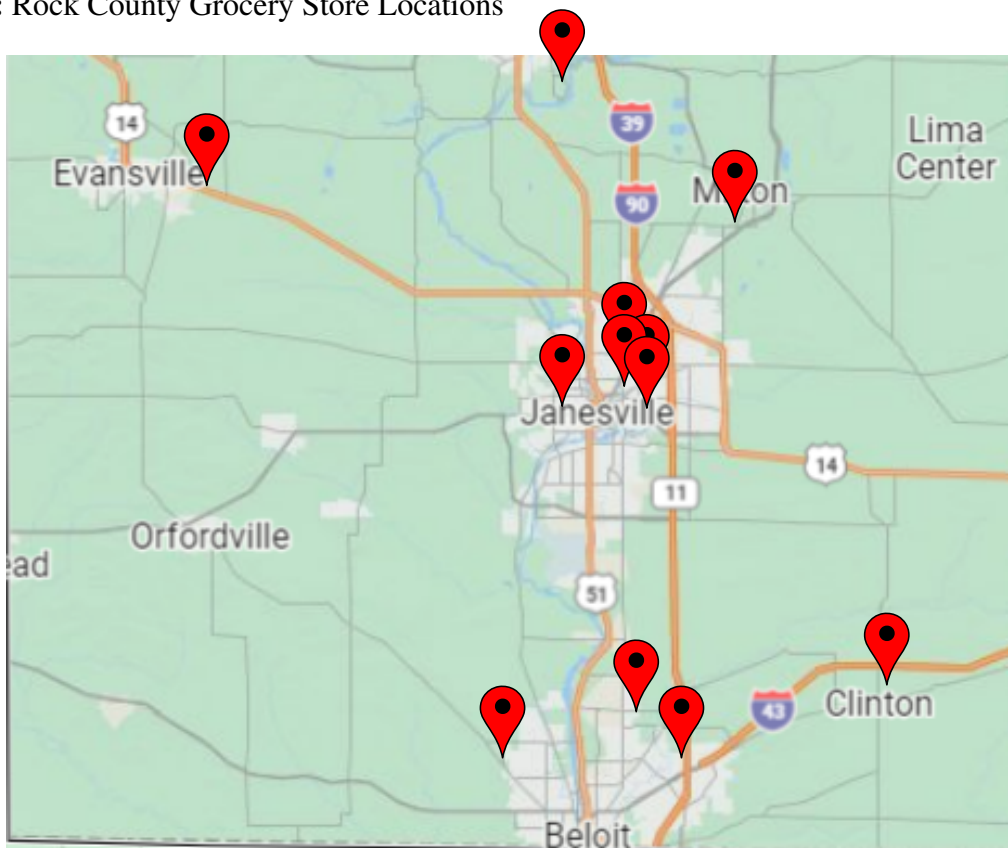
- Acceptance of Special Supplemental Nutrition Program for Women, Infants, and Children benefits
- Acceptance of Supplemental Nutrition Assistance Program benefits
- Walking distance to a bus stop
- Sidewalk availability
- Prepared food availability- hot and ready to eat
- Availability of gluten free options
- General accessibility

Each component increases accessibility to community members acquiring healthy and nutritious foods. The results found seven of nine traditional grocery stores assessed accepted WIC benefits and provided WIC-approved foods. In contrast, none of the corner stores accepted WIC benefits and most reported a limited capacity to stock the necessary inventory to be approved to accept benefits. SNAP benefits were accepted by 100% (nine) of the grocery stores assessed, whereas fewer corner stores (five) accepted the benefits. Inclusive accessibility infrastructure to the stores was determined to be present in nine (100%) of traditional grocery stores, but only six (68%) of these stores had sidewalks present. For corner stores, seven (78%) has inclusive accessibility, and all had sidewalks present. Grocery and corner stores generally had limited access to a bus route (only one in each category was within walking distance to a bus stop). Prepared food was found to be more prevalent at grocery stores. Special diets, such as gluten-free options, were mainly present at grocery stores rather than corner stores as well. Lastly, the results were clear that for the two box stores assessed, they had all evaluation components present, but all box store locations were located outside of community neighborhoods and in primarily business use areas that are not walkable. This would make the store in an area of car dependency.

Secondary Data

For context, secondary data such as grocery store mapping was collected to help identify areas of resource and those areas with higher levels of need. The map in Figure 7 details Rock County traditional grocery stores and locations. The map also shows areas that have no stores present.

Figure 7: Rock County Grocery Store Locations



Limitations

During the implementation of the community-wide survey and store assessments, a few limitations were noted. The survey was initially released as an online version, with only limited availability of paper copies. This may have been a barrier for the elderly or those without internet access. As the survey was only open for about two weeks, this short window to complete may have been a barrier to getting community members to complete the survey. Finally, although the responses gave us a descriptive picture of what residents are facing, there was not a significant number of responses to provide statistical evidence about the communities in Rock County. For instance, the results were able to yield that many households had two to four members living at the residence, but due to questions asked we were unable to identify if they were families with children or only adults.

Discussion

The two evaluations of the Rock County food environment found positive and negative aspects. Both evaluations clearly showed that the stores in more affluent areas of the county provided better access, quality, and amenities. This aligns with the survey's key finding that as income increases, so does the presence of food within the household. Conversely, the Rock County survey results confirm that food deserts are typically found in lower-income census tracts, which is valid for Rock County. For instance, on the southside of Janesville, food access is significantly restricted due to a lack of grocery stores. Janesville has 29% of residents living below a basic survival budget, it is even more disproportionate as the majority of the 29% of residents reside on southside of Janesville. Additionally, people who are socioeconomically disadvantaged tend to have decreased access to healthy food retail outlets. This creates a vicious cycle of chronic disease, such as obesity, poverty, and a never-ending cycle of employment hardship and affordability constraints (AlHanson & Eberth, 2016) (1).

From the survey results, it can be determined that it's more difficult for renters to access fresh fruits and vegetables - only 36% of renters who responded to the food environment survey indicated it was easy to purchase fresh fruits and vegetables compared to 58% of homeowners. Rock County rental units, particularly affordable housing, are located in car-dependent areas without proximity to traditional grocery stores or box stores. This creates difficulty for renters who don't own vehicles, have limited car access and/or rely on public transportation. Having public transportation is vital for allowing residents access to local grocery stores. As stated in the above results, it is noted that stores within walking distance to a bus route were the lowest reported category for both grocery stores and corner stores.

The results of the Rock County food environment report and subsequent recommendations are very timely with the release of the 2022 White House Conference on Hunger, Nutrition, and Health report with the goal of "ending hunger and increasing healthy eating and physical activity by 2030."(White House, 2023) (28). One of the pillars of this national effort is to improve food access and affordability, and another pillar addresses the integration of nutrition and health. These two pillars are integral to the work of the Nutrition Collaborative of Rock County, a work group initiated by RCPHD to bring together multidisciplinary organizations and efforts to increase access to nutritious foods in the county. The Nutrition Collaborative of Rock County aims to work cooperatively in the county to address the needs identified in this report.

Four overarching recommendations are provided, with three sub-recommendations in the following section to help improve the Rock County food environment. Recommendations in this report will be the platform of the work of the Nutrition Collaborative of Rock County. Improving access to healthy, nutritious foods will require thoughtful planning and investment in the county's local food systems and food economy.

Recommendations

Recommendation One: Increase food access opportunities within identified Healthy Food Priority Areas (HFPAs).

Throughout this report, multiple access issues were identified in different aspects and areas of the County. Issues of access ranged from lack of transportation to income concerns to lack of options and variety. Addressing these issues in conventional and innovative ways will be necessary to increase food access and opportunities within identified healthy food priority areas (HFPAs). Many HFPAs are areas of low-income. Living Wage-MIT reported that in Rock County the living wage for a one adult household was \$16.26 an hour. As the household size increases so does the need for more income. Living Wage-MIT reports for a family of four with two adults and two children in Rock County, a family income would need to be at least \$24.70 an hour. In Wisconsin the current minimum wage is \$7.25 highlighting a great discrepancy between minimum wage and the living wage. The identified wage discrepancy becomes even more concerning when basic costs such as childcare and housing also increasing, leaving less spending room for food. Increasing food access opportunities including access to both nutritious and affordable food will benefit residents struggling to acquire food due to income and geographical constraints.

Subcomponent 1.A: Develop food access initiatives targeting the healthy food priority area on Janesville's southside.

Healthy food priority areas are designated areas that have the lowest access to healthy food retailers. Based on the map provided in Figure 7 above the majority of grocery stores covering the Janesville areas are on the northside. In addition to grocery stores, the northside is heavy in other categorized food retailers and restaurants. The southside of Janesville is disproportionately served in terms of access to food. In the food environment survey, 17.28% of respondents in the open comment section indicated the need for healthy food and grocers on the southside of Janesville.

The southside of Janesville has been without a full-service grocery store since the closure of Pick "n" Save in 2017. Additional grocery stores have been added in the county, but not in the southern part of Janesville. In the last Community Health Assessment, it was reported that there are 1.5 grocery stores per 10,000 residents in Rock County. This totals about 16 grocery stores that serve the entire Rock County population (164,381 residents per U.S. Census Bureau, 2021). The statistic, which is indicative to the suboptimal number of food retailers for the population at large, becomes even more concerning when grocery store locations are examined more closely. For instance, there are three grocery stores within a two-mile radius on the northside of Janesville while there are none on the southside.

Subcomponent 1.B: Develop food access initiatives targeting healthy food priority areas within Beloit.

Beloit is the second significant area in need within Rock County. According to the USDA ERS Food Access Research Atlas, a majority of census tracts within Beloit are experiencing low food access with food retailers located farther than one mile away from residents. Additionally, 17.7% of Beloit residents have income placing them within the established poverty level for the United States which has implications on access to quality nutritious foods within a reasonable distance.

Recommendation Two: Identify areas for improvement in the acceptance of WIC and SNAP benefits throughout Rock County.

The acceptance of WIC and SNAP benefits at corner stores, grocery stores, and box stores was evaluated, and it was identified that the type of store having the most quality aspects for WIC and SNAP were the box stores. This is problematic issue as there are only a few box stores in the county, and they are located away from population centers, requiring reliable transportation to access. This can create food safety issues related to food transport, issues with the cost of transportation, and barriers if residents do not have the physical capability to carry groceries.

An additional issue regarding the acceptance of WIC and SNAP is that the guidelines involved with businesses being able to accept these programs can be burdensome. Identifying areas of difficulty and confusion within the application process for retailers can be a step toward increasing acceptance throughout the County. It can be noted that "spatial mismatch of the Supplemental Nutrition Assistance Program in urban areas of the United States" shows that taking SNAP acceptance locations into consideration when zoning and city planning is imperative to equitable access (Eichinger, 2021) (7).

A final key component for this recommendation is promoting WIC and SNAP programs to community members in need and reducing barriers to enrollment and usage. Normalizing the programs will also help to decrease stigma associated with seeking assistance.

Recommendation Three: Increase and promote Rock County restaurants and fast-food establishments offering healthier food choices and participating in the Kids Live Well program.

Rock County has a higher percentage of restaurants and fast-food retailers than grocery stores. The number of fast-food restaurants in the county is almost five times the number of grocery stores or 6.86 fast-food sites per 10,000 people. With the prevalence of fast-food sites, it is essential to emphasize healthy food choices to children within the county. This will help create and reinforce healthy eating habits in families and children - regardless of whether they are eating at school, at home, or at a restaurant. The National Restaurant Association has developed and implemented a Kids Live Well program to promote healthy food options. Through this program restaurants submit their menu for review, and they commit to a minimum of two healthy meals and sides that follow the 2020-2025 Dietary Guidelines for Americans. In addition to the minimum meal requirements, participating restaurants commit to a default beverage policy. This includes promoting water over all other beverages (National Restaurant Association, 2022) (16).

Subcomponent 3.A: Increase healthy eating and education opportunities within Rock County Schools.

School districts participating in the federally reimbursable school meal program already provide healthier food choices during the school day. Additional opportunities to provide healthy food choices beyond the school day may be possible through partnerships between districts and the Nutrition Collaborative. Furthermore, these partnerships may help support the identification of funding for nutrition education and physical activity initiatives.

Recommendation Four: Repeat the food environment report every two years.

This report is the first of its kind for the Rock County. RCPHD routinely conducts the Community Health Assessment (CHA) and develops the corresponding Community Health Improvement Plan (CHIP), giving initial insights and detailed data regarding health improvements needed throughout the county. The 2022 CHA included, for the first time, a food insecurity related question. Additional input and evaluation are needed, along with further follow up work on the issues raised in this report.

The impacts of the COVID-19 pandemic and recent inflation have not been captured in the data presented in this report. It is anticipated that food insecurity has become more prevalent, causing additional gaps in meeting needs to develop; repeating the survey is necessary to gather data, monitor changes, and evaluate recommendations and initiatives.

Conclusion

Access to healthy, nutritious foods in Rock County does not need to be dependent on zip code or income level. A food-secure community provides food for everyone in a coordinated, environmentally responsible, culturally acceptable, financially sustainable, and dignified manner (Milwaukee Food Report, 2022). This food environment report outlines initial actions to increase access to healthy food for all Rock County residents. The recommendations shared are a starting point to provide guidance to policymakers to work with community partners and leverage prior success to move forward together.

The Nutrition Collaborative of Rock County will use the data presented here to create a plan to improve food access and decrease barriers to obtaining healthy food in HRPA's and help improve food security for residents. If you would like to join the collaborative or learn more about the efforts, please contact the Nutrition Collaborative of Rock County at Courtney.Nathan@co.rock.wi.us.

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Appendix

Appendix A. Food Environment Survey

BACKGROUND QUESTIONS

1. What zip code do you currently live in?

2. How many members live in your household?

- 1 2-4 5+

3. What gender do you identify as?

- Female Male Non-Binary

4. What is your race/ethnicity?

- Black/African American White/Caucasian American Indian or Alaskan Native
 Hispanic/Latino Asian/South Asian/Pacific Islander Two or more

5. How would you describe the total yearly income for your household?

- Less than \$20,000 \$20,000-\$34,999 \$35,000-\$49,999 \$50,000-\$100,000 \$100,000+

6. Do you rent or own your home?

- Rent Own Other _____

HOME FOOD ENVIRONMENT

7. Which of these functioning items are found in your home to cook or store food? (Check all that apply)

- Refrigerator Freezer Microwave Oven Stove Oven Sink/Dishwasher Other _____

8. Check the box below for each food that has been available in your home over the past week:

- Fruits Candy/Cookies/Snack Chips Milk Soda/Sweetened Beverages Vegetables
 Bread or Rice Juice Processed Meats (Sausage, Lunch Meat, Hotdogs, Etc.)

9. How often do you have fruits and vegetables in the fridge?

10. How often are chips or candy available in your home?

11. Please mark whether you agree or disagree with the following statements:

It is easy to buy fresh fruits and vegetables in my neighborhood

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

The fresh produce in my neighborhood is high quality

There is a large selection of fresh fruits and vegetables in my neighborhood

It is easy to buy low-fat products such as low-fat milk or lean meats in my neighborhood.

There is a large selection of low-fat products available in my neighborhood

FOOD ACCESS QUESTIONS

12. What store or food pantry do you do most of your shopping at?

13. Do you find yourself shopping at multiple stores? Please explain.

14. How do you travel to buy food?

- Get a ride from friends or family
 Bicycle
 Walk
 Bus/Public Transportation
 Drive personal vehicle
 Other _____

15. How important are each of the following items in your decision to shop at the store where you buy most of your food?

	Very Important	Important	Neutral	Less Important	Not Important
Near your home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Near places you spend time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your friends or relatives shop at the same store	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selection of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prices of foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to public transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. At the store where you buy most of your food, how would you describe the price of fruits and vegetables?

- Very Inexpensive
 Not Expensive
 Fair
 Somewhat Expensive
 Very Expensive

17. Do you agree or disagree with the following statements regarding access to food?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have enough money to buy food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I struggle having enough money to buy healthy food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 6 months I have had to choose between buying food and other expenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know where to get food assistance when I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel supported in times of need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 6 months I have had to ration food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the past 6 months I have had moments where I didn't know where my next meal was coming from	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. How easy or difficult is it to get each of the following items?

	Very Easy	Easy	Neutral	Difficult	Very Difficult
Fruits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dairy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candy/Snacks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soda/ Sweetened Beverages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bread/Rice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Do you agree or disagree with the following statements about the store where you buy the majority of your food?

Agree

Disagree

I notice signs that encourage me to buy healthy foods

I often buy food items that are located near the cash register

The unhealthy foods are usually located near the end of the aisle

I am unable to bend or reach to pick up foods from high or low shelves

There are signs and displays that encourage me to buy unhealthy foods

20. In a typical week, how many times do you eat out or get takeout food?

21. How would you describe the restaurants you visit most often?

Fast-Food Sit-Down

22. Do you agree or disagree with the following statements about the restaurants you go to most often?

Agree

Disagree

There are many healthy menu options at the restaurant

It is hard to find a healthy option when eating out at the restaurant

It is easy to find healthy fruit and vegetable choices at the restaurant

It is important to me to be able to make a healthy food choice when eating out

The restaurant provides nutrition information on a menu board or menu

Signs and displays encourage overeating or choosing unhealthy foods from the menu

It costs more to buy the healthier options

The menu board or menu promotes the healthy options

23. In the last year, how often were you concerned about having enough money to eat nutritious meals?

Never A few times Frequently Almost all the time

24. How concerned are you about having healthy foods to eat?

Not at all Very concerned Somewhat concerned Unconcerned

25. When you shop for food how important are the following aspects to you?

Very important

Not so important

Someone important

Taste

Nutrition

Cost

Convenience/Time

26. When you shop for groceries, how often do you use a list?

- All the time Most of the time Sometimes Never

27. How often does your family eat meals together?

- Everyday Sometimes Never

28. Are there any additional details regarding the food accessibility in Rock County or thoughts you would like to provide?

HEALTHY RETAIL ASSESSMENT

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ASSESSMENT DETAILS

Date (mm/dd/yy): _____ Completed by (First and Last Name): _____

Number of Times Assessed: 1st 2nd 3rd 4th 5th More than 5 times

STORE DETAILS

Store Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Store Type: Convenience/Corner Store
 Grocery Store/Supermarket

WIC Approved: Yes
 No

FoodShare/EBT Acceptance: Yes
 No

EXTERIOR

1. To what extent are the following decals, signage, and/or advertisements posted outside and/or are visible from outside?

	None (0%)	Few (25%)	Half (50%)	Most (75%)	All (100%)
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FoodShare/EBT card acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Healthy foods/beverages <i>Healthy = fruits, vegetables, whole grains, beans, nuts, seeds, non-fat and low fat milk products, lean meat, poultry, and fish. Consider minimal or no added fat, sugars, or sweeteners "healthy". Include unsweetened black coffee.*</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unhealthy foods/beverages <i>Unhealthy = high calorie, low nutrient that include soft drinks and other sweetened beverages. Consider diet drinks, sweet desserts and highly sugared cereals, chips and other salty snacks, most solid fats, fried foods, and other foods with high amounts of sugar, fat and/or sodium as "unhealthy".* Do NOT include alcohol, cigarettes, or tobacco products.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alcohol, alcoholic beverages, cigarettes, and tobacco products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Is there unused and/or available space for additional decals, signage, and/or advertisements to be posted outside and/or be visible from outside?

Yes No

FRONT ENTRANCE

3. Which of the following are present or visible near the front entrance? Do not include items at the checkout counter or aisle.

	Yes	No
Fresh produce	<input type="checkbox"/>	<input type="checkbox"/>
Healthy foods/beverages <i>Healthy = fruits, vegetables, whole grains, beans, nuts, seeds, non-fat and low fat milk products, lean meat, poultry, and fish. Consider minimal or no added fat, sugars or sweeteners "healthy". Include unsweetened black coffee.*</i>	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements for healthy foods	<input type="checkbox"/>	<input type="checkbox"/>
Unused and/or available space for healthy foods	<input type="checkbox"/>	<input type="checkbox"/>
Unused and/or available space for decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

FRESH FRUIT

4. How many varieties of fresh fruit are available? Do not include lemons or limes.

- 0 1 2 3 4 5 6 7 8+

5. How many of the available fresh fruit varieties appear to be of acceptable condition?

Acceptable = peak condition, top quality, good color, fresh, firm, and clean

- 0 1 2 3 4 5 6 7 8+ NA

6. Are prices bundled or anchored (e.g., Buy 3 for \$2) for any of the available fresh fruit varieties?

- Yes No NA

7. How many of the available fresh fruit varieties have the price listed, posted, or indicated?

- None (0%) Few (25%) Half (50%) Most (75%) All (100%) NA

8. How many of the available fresh fruit varieties have an even dollar amount as the listed price?

- None (0%) Few (25%) Half (50%) Most (75%) All (100%) NA

9. Please indicate if the following promotional materials, advertisement, and/or signage posted or used for the available fresh fruit varieties.

	Yes	No	NA
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locally-grown fresh fruit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other general fresh fruit promotion (e.g., indicating fresh fruit as a <i>good</i> or <i>healthy</i> option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Please indicate if there is unused and/or available space (e.g., counter, shelf, floor, or refrigerated) for each of the following as it relates to fresh fruit.

	Yes	No
Additional fresh fruit (e.g., quantity, more varieties)	<input type="checkbox"/>	<input type="checkbox"/>
Displays and/or storage (e.g., baskets, racks)	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

11. Is the primary location of the available fresh fruit varieties highly visible?

- Yes Notes/Comments: _____
 No _____
 NA _____

12. Is the primary location of the available fresh fruit varieties attractively displayed?

- Yes Notes/Comments: _____
 No _____
 NA _____

13. Are ready-to-eat fresh fruit (e.g., pre-cut, mixed fruit/fruit salad) available? Do not include whole, fresh fruit.

- Yes No NA

FRESH VEGETABLES

14. How many varieties of fresh vegetable are available? Do not include garlic or ginger root.

- 0 1 2 3 4 5 6 7 8+

15. How many of the available fresh vegetable varieties appear to be of acceptable condition?

Acceptable = peak condition, top quality, good color, fresh, firm, and clean

- 0 1 2 3 4 5 6 7 8+ NA

16. Are prices bundled or anchored (e.g., Buy 3 for \$2) for any of the available fresh vegetable varieties?

- Yes No NA

17. How many of the available fresh vegetable varieties have the price listed, posted, or indicated?

- None (0%) Few (25%) Half (50%) Most (75%) All (100%) NA

18. How many of the available fresh vegetable varieties have an even dollar amount as the listed price?

- None (0%) Few (25%) Half (50%) Most (75%) All (100%) NA

19. Please indicate if the following promotional materials, advertisement, and/or signage posted or used for the available fresh vegetable varieties.

	Yes	No	NA
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locally-grown fresh vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other general fresh vegetable promotion (e.g., indicating fresh vegetables as a good or healthy option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Please indicate if there is unused and/or available space (e.g., counter, shelf, floor, or refrigerated) for each of the following as it relates to fresh vegetables.

	Yes	No
Additional fresh vegetables (e.g., quantity, more varieties)	<input type="checkbox"/>	<input type="checkbox"/>
Displays and/or storage (e.g., baskets, racks)	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

21. Is the primary location of the available fresh vegetables varieties highly visible?

- Yes Notes/Comments: _____
 No _____
 NA _____

22. Is the primary location of the available fresh vegetables varieties attractively displayed?

- Yes Notes/Comments: _____
 No _____
 NA _____

23. Are ready-to-eat fresh vegetables (e.g., pre-cut, salads) available? Do not include whole, fresh vegetables.

- Yes No NA

CANNED FRUIT

24. How many varieties of canned fruits (in natural juice or water) are available?

- 0 1 2 3 4 5 6 7 8+

25. Please indicate if the following promotional materials, advertisement, and/or signage posted or used for the available canned fruit varieties.

	Yes	No	NA
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other general canned fruit promotion (e.g., indicating canned fruit as a good or healthy option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26. Please indicate if there is unused and/or available space (e.g., counter, shelf) for each of the following as it relates to canned fruit.

	Yes	No
Additional canned fruit (e.g., quantity, more varieties)	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

CANNED VEGETABLES

27. How many varieties of canned vegetables (in water/without sauce) are available? Do not include tomato/spaghetti sauce.

- 0 1 2 3 4 5 6 7 8+

28. How many varieties of low sodium (<200mg/serving) canned vegetables are available? Do not include tomato/spaghetti sauce.

- 0 1 2 3 4 5 6 7 8+

29. Please indicate if the following promotional materials, advertisement, and/or signage posted or used for the available canned vegetable varieties.

	Yes	No	NA
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other general canned vegetable promotion (e.g., indicating canned vegetables as a good or healthy option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30. Please indicate if there is unused and/or available space (e.g., counter, shelf) for each of the following as it relates to canned vegetables.

	Yes	No
Additional canned vegetables (e.g., quantity, more varieties)	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

FROZEN FRUIT

31. How many varieties of frozen fruits (no sugar added) are available?

- 0 1 2 3 4 5 6 7 8+

32. Please indicate if the following promotional materials, advertisement, and/or signage posted or used for the available frozen fruit varieties.

	Yes	No	NA
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other general frozen fruit promotion (e.g., indicating frozen fruit as a good or healthy option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. Please indicate if there is unused and/or available space (e.g., shelf, freezer) for each of the following as it relates to frozen fruit.

	Yes	No
Additional frozen fruit (e.g., quantity, more varieties)	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

FROZEN VEGETABLES

34. How many varieties of frozen vegetables (in water/without sauce) are available?

- 0 1 2 3 4 5 6 7 8+

35. Please indicate if the following promotional materials, advertisement, and/or signage posted or used for the available frozen vegetable varieties.

	Yes	No	NA
WIC/WIC acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other general frozen vegetable promotion (e.g., indicating frozen vegetables as a good or healthy option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36. Please indicate if there is unused and/or available space (e.g., shelf, freezer) for each of the following as it relates to frozen vegetables.

	Yes	No
Additional frozen vegetables (e.g., quantity, more varieties)	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

OTHER FOOD ITEMS

37. Please indicate if the following items are available.

	Yes	No
Skim/fat free milk	<input type="checkbox"/>	<input type="checkbox"/>
1% or 2%/low or reduced fat milk	<input type="checkbox"/>	<input type="checkbox"/>
Whole milk	<input type="checkbox"/>	<input type="checkbox"/>
Diet soda	<input type="checkbox"/>	<input type="checkbox"/>
100% juice	<input type="checkbox"/>	<input type="checkbox"/>
Juice drinks	<input type="checkbox"/>	<input type="checkbox"/>
100% whole wheat/whole grain bread	<input type="checkbox"/>	<input type="checkbox"/>
White bread	<input type="checkbox"/>	<input type="checkbox"/>
Whole grain cereals <i>Whole grain cereals = Whole grain as the primary ingredient by weight AND meet labeling requirements for making a health claim as a "whole grain food with moderate fat content"</i>	<input type="checkbox"/>	<input type="checkbox"/>
Non-whole grain cereals	<input type="checkbox"/>	<input type="checkbox"/>
Lower sugar cereals (<7g sugar/serving)	<input type="checkbox"/>	<input type="checkbox"/>
Higher sugar cereals (>7g sugar/serving)	<input type="checkbox"/>	<input type="checkbox"/>

CHECKOUT COUNTER/AISLE

38. Which of the following are present or visible near the checkout counter/aisle?

Near = within arm's reach when at the counter

	Yes	No
Fresh produce	<input type="checkbox"/>	<input type="checkbox"/>
Healthy foods <i>Healthy = fruits, vegetables, whole grains, beans, nuts, seeds, non-fat and low fat milk products, lean meat, poultry, and fish. Consider minimal or no added fat, sugars or sweeteners "healthy". Include unsweetened black coffee.*</i>	<input type="checkbox"/>	<input type="checkbox"/>
WIC decals and/or signage	<input type="checkbox"/>	<input type="checkbox"/>
Decals, signage, and/or advertisements for healthy foods	<input type="checkbox"/>	<input type="checkbox"/>
Unused and/or available space for healthy foods	<input type="checkbox"/>	<input type="checkbox"/>
Unused and/or available space for decals, signage, and/or advertisements	<input type="checkbox"/>	<input type="checkbox"/>

STORE MANAGER – INTERVIEW

39. What is your role/position title at this store?

- Store Manager
- Manager on Duty
- Other role, please specify: _____

40. Do you offer sales and/or coupons for healthy foods and beverages? If yes, please describe (e.g., how often, what types of items).

- Yes → _____
- No _____

41. Are employees trained to promote or suggest any items for sale to customers? If yes, please specify.

- Yes → _____
- No _____

42. What else would you like to share regarding the availability, promotion, and selection of healthy and unhealthy foods and beverages?

Assessment developed by
University of Wisconsin-Extension,
Cooperative Extension and
Wisconsin Department of Health Services

Appendix C: Modified Healthy Food Access Index Tool

Health Food Access Index Scoring Sheet

Store: _____ Address: _____ Evaluator: _____

Component	Score Range	Score	Component	Score Range	Score
Bus stop in sight	0 – 1		Frozen Fruit Available	0 – 1	
Accepts WIC	0 – 1		Canned Fruit in Juice Available	0 – 1	
Accepts SNAP	0 – 1		Canned Vegetables Available	0 – 1	
Prepared food available	0 – 1		Canned Tuna Available	0 – 1	
Milk Available	0 – 1		Canned/Dry Beans Available	0 – 2	
Milk Alternative Available	0 – 1		Bread Available	0 – 1	
Skim or 1% Available	0 – 1		100% Whole Wheat Products Available	0 – 1	
Whole Milk Available	0 – 1		Corn Tortillas Available	0 – 1	
Infant Formula Available	0 – 1		Cereal Available	0 – 1	
Baby Food Available	0 – 1		Low Sugar High Fiber Cereal Available	0 – 1	
Yogurt Available	0 – 1		Oil Available	0 – 1	
Unflavored Yogurt Available	0 – 1		Butter Available	0 – 2	
Eggs Available	0 – 1		Produce Overall Appearance	0 – 3	
Fruits Available	0 – 1		Organic Produce Available	0 – 1	
# Available Fruit Types	0 – 5		Locally Grown Produce Available	0 – 1	
White Potatoes Available	0 – 1		Halal Meat Available	0 – 1	
Sweet Potatoes Available	0 – 1		Kosher Meat Available	0 – 1	
Broccoli Available	0 – 1		Culturally Specific Shelf Space	0 – 5	
Carrots Available	0 – 1		Parking Lot Available	0 – 1	
Tomatoes Available	0 – 1		Handicap Access Available	0 – 1	
Onions Available	0 – 1		Handicap Parking Available	0 – 1	
Leafy Greens Available	0 – 1		Store Scooters Available	0 – 1	
Red Meat Available	0 – 1		New/Expecting Mom Parking	0 – 1	
# Available Red Meat Types	0 – 5		Drive-Up Grocery Pick Up	0 – 1	
Tofu/Meat Substitute Available	0 – 2		Sidewalks Around	0 – 1	
Chicken Available	0 – 1		Gluten Free Options Available	0 – 1	
Chicken Cuts Available	0 – 1		# Of Available Vegetable Types	0 – 5	
Seafood Options Available	0 – 1		Are Culturally Specific Items Sold	0 – 7	

Total: _____