



Assessing the Early Stage Acceptability of Good Bowls among Corner Store Customers in Warren County, NC

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Introduction

Proper nutrition is central to the prevention and management of numerous diseases, particularly chronic diseases.^{1,2,3} However, healthy foods can be expensive and inaccessible, particularly for individuals of lower socioeconomic status.⁴ Poor diet, poverty, unemployment, ethnic minority status, rural residence, and food insecurity have been found to be strong predictors of poor health.⁵ Addressing food insecurity and developing economic opportunities are necessary to resolving health disparities in rural low-income communities.^{6,7} To sustainably address food insecurity and increase economic opportunities in rural areas, Good Bowls, LLC, a social entrepreneurship venture started by researchers at the UNC Center for Health Promotion and Disease Prevention (UNC HPDP), has developed a line of frozen, shelf-stable ready-to-eat meals. To make Good Bowls’ locally-sourced frozen meals (“Good Bowls”) affordable, the products are sold using a cost-offset model in which products are sold at a higher price at higher-end stores and at a lower price at corner stores, convenience stores, and smaller grocery stores. While there is a documented need for healthy, affordable food in lower income, rural areas, a better understanding of the acceptability of Good Bowls and impact on food insecurity and nutrition among low income communities is needed to tailor Good Bowls’ entry into these markets and ensure that Good Bowls can achieve its goals to sustainably address food insecurity and provide economic opportunities in rural areas.^{8,9}

Methods

To assess the early stage acceptability and potential impact of Good Bowls on food insecurity and nutrition among corner store customers, a cross-sectional study design was used. Two surveys were administered: 1) a corner store intercept survey designed to learn more about the perceived availability of healthy food options, the barriers that corner store customers experience with regards to maintaining healthy diets, the food shopping and consumption patterns of corner store customers, and the early acceptability of Good Bowls; and 2) a taste test survey designed to test the reception of Good Bowls flavors among corner store customers. Data collection occurred at four corner stores located in Warren County, a non-metropolitan area in North Carolina that has been identified as a food desert. At each corner store, investigators administered paper surveys and were available to read the surveys aloud to participants if requested. Participants were given \$5 as a thank-you for their time in completing the intercept survey.

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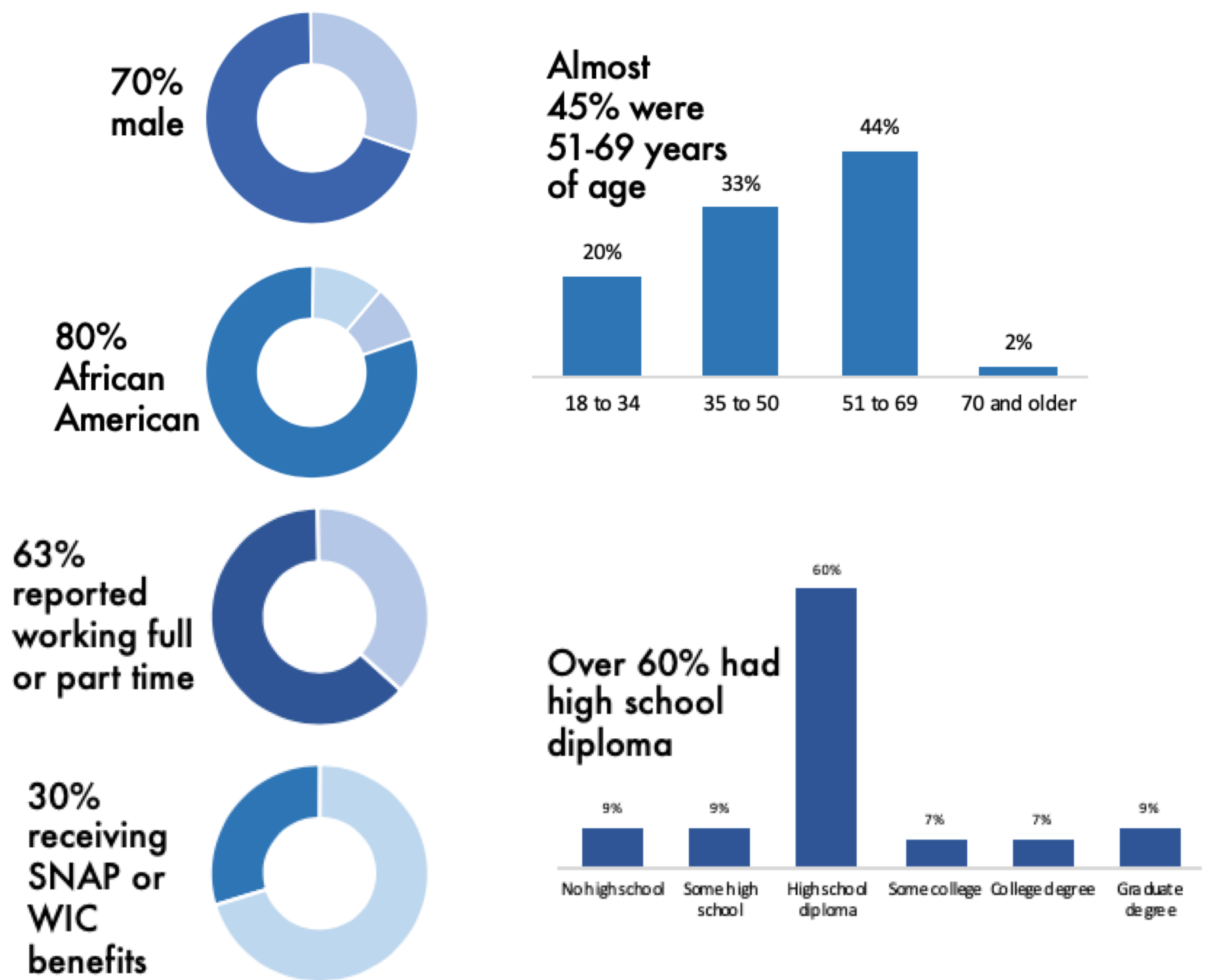
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Results

Demographic Data



Intercept Survey Key Takeaways

- 50 surveys collected
- 2 in 5 participants identified themselves as food insecure, double that of Warren County’s food insecurity prevalence of 21.2 percent
- About half of the surveyed corner store customers face barriers in accessing healthy foods
- Barriers to healthy eating included cost, availability of food, and convenience
- Corner stores are a significant source of food for their customers and are an appropriate point of intervention
- Respondents ate an average of 6 pre-made meals per week
- 15 percent of respondents did not have a working microwave oven
- Good Bowls were well-received by corner store customers
- Respondents were willing to pay an average of \$3.28 for a Good Bowl

Intercept Survey Data

Table 1: Frequency of responses to "Please indicate how often meals or snacks with fruits or vegetables were available and affordable at the following places"

	Never (count (%))	Sometimes (count (%))	Often (count (%))	Always (count (%))
Near where you live (n=49)	1 (2.04)	23 (46.94)	12 (24.49)	13 (26.53)
The store where you buy most of your food (n=49)	1 (2.04)	12 (24.49)	15 (30.61)	21 (42.86)
Small convenience stores (n=49)	7 (14.29)	24 (48.98)	13 (26.53)	5 (10.20)
The restaurant you go to most often (n=50)	7 (14.00)	15 (30.00)	19 (38.00)	9 (18.00)

Table 2: Responses to “What were the main things that made it hard to eat healthy?”(n=46)

	Count (%)
Cost	12 (16.00)
Availability	13 (17.33)
Not convenient	14 (18.67)
Family preferences	13.33 (10)
Don’t know how to cook	3 (4.00)
Taste	7 (9.33)
Don’t like to cook	1 (1.33)
Time	13 (17.33)

Taste Test Survey Key Takeaways

- 18 surveys collected
- All respondents agreed that Good Bowls tasted good and seemed healthy
- All respondents also agreed that they would eat the meal again and that they would recommend the meal to their friends
- Of the four Good Bowls flavors tested, respondents did not indicate a preference for one flavor over the others – all flavors were well-received
- Taste test respondents reported that they would pay an average of \$4.40 for a Good Bowl

Discussion

- Many corner store customers face barriers in accessing healthy foods, and perceived availability of healthy foods was found to be low for a significant proportion of this corner store customer group
- Barriers to maintaining healthy diets included cost, availability of food, and convenience, and Good Bowls is

designed to address these specific barriers. Good Bowls’ cost offset model makes the product more financially accessible, its shelf-stable format allows it to be stocked in more stores, and its frozen format means that preparation is convenient since consumers only have to place it in the microwave.

- Corner stores are a significant source of food for their customers, and 2 in 5 corner store customers were identified as food insecure. This means that corner store customers face significant barriers to accessing healthy food and that corner stores are an important part of the food supply chain in these communities, with customers shopping at corner

stores an average of 4 times per week. Therefore, corner stores are an appropriate point of intervention for Good Bowls.

- Good Bowls were well-received by corner store customers, and success of the product from a business and intervention standpoint can be expected.