Healthy food access is more about affordability than proximity

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Abstract

Healthy food purchasing and consumption behaviors among low-income, low-access consumers are often attributed to the availability of healthy food retail outlets in their neighborhoods. However, studies suggest that the adage "*if you build it, they will come*" may not result in improved dietary intake and access because drivers of behavior are multi-faceted and not confined to the factor of proximity. With Extension professionals' guidance, a local food policy council subcommittee explored perceptions of food access among patrons of service providers located in low-income census tracts in Henderson, NV. The Council prepared a report based on their findings to help city planners assess residents' needs and desires living in and around identified food deserts as part of a REACH (Racial and Ethnic Approaches to Community Health) grant deliverable through a sponsorship with the local health department. Qualitative and quantitative data were obtained during three focus group sessions from 28 participants, which were mostly low-income, including two groups of seniors and one group of Hispanic mothers of young children. Participants filled out a 15-item pre-survey, and a 10-item open-ended discussion guide was used to facilitate the focus group discussions. The principal factor influencing food shopping was price/cost, quality, and location/convenience following correspondingly. Seventy-eight percent used neighborhood grocery stores as their primary place to get food; however, 75% stated they also used farmers markets, and 60% also used food pantries. Qualitative data showed that most participants had a good base of existing nutrition knowledge and desired what most consumers want: affordability, quality, selection, convenience, and safe, wholesome food. Themes emerging from the qualitative data analysis included health (current and future), planning, availability, influences on behavior, foods considered healthy or unhealthy, federal nutrition programs, and putting others' needs before their own. Preliminary findings show that these urban low-income, low-access consumers perceive their most significant barrier to obtaining healthy food is lack of money, not living in a food desert, or lack of nutrition knowledge. Ensuring residents in a food desert have employment opportunities created by adding a healthy food retail outlet in their neighborhood may be more meaningful than bringing in a business run by outsiders. City planners are challenged to explore ways to help low-income residents get a "leg-up" in their community through job creation and other forms of community development that create economic opportunity and increase access to good quality healthy food.

Keywords

qualitative, seniors, Hispanic, shopping, perception, neighborhood

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Healthy food purchasing and consumption behaviors among low-income, low-access consumers are often attributed to the availability of healthy food retail outlets in their neighborhoods. However, studies suggest that the adage "*if you build it, they will come*" may not result in improved dietary intake and access because drivers of behavior are multi-faceted and not confined to the factor of proximity. With Extension professionals' guidance, a local food policy council subcommittee explored perceptions of food access among patrons of service providers located in low-income census tracts in Henderson, NV. The Council prepared a report based on their findings to help city planners assess residents' needs and desires living in and around identified food deserts as part of a REACH (Racial and Ethnic Approaches to Community Health) grant deliverable through a sponsorship with the local health department. Qualitative and quantitative data were obtained during three focus group sessions from 28 participants, which were mostly low-income, including two groups of seniors and one group of Hispanic mothers of young children. Participants filled out a 15-item pre-survey, and a 10-item open-ended discussion guide was used to facilitate the focus group discussions. The principal factor influencing food shopping was price/cost, quality, and location/convenience respectively. Seventy-eight percent used neighborhood grocery stores as their primary place to get food; however, 75% stated they also used farmers markets, and 60% also used food pantries. Qualitative data showed that most participants had a good base of existing nutrition knowledge and desired what most consumers want: affordability, quality, selection, convenience, and safe, wholesome food. Themes emerging from the qualitative data analysis included health (current and future), planning, availability, influences on behavior, foods considered healthy or unhealthy, federal nutrition programs, and putting others' needs before their own. Preliminary findings show that these urban low-income, low-access consumers perceive their most significant barrier to obtaining healthy food is lack of money, not living in a food desert, or lack of nutrition knowledge. Ensuring residents in a food desert have employment opportunities created by adding a healthy food retail outlet in their neighborhood may be more meaningful than bringing in a business run by outsiders. City planners are challenged to explore ways to help low-income residents get a "leg-up" in their community through job creation and other forms of community development that create economic opportunity and increase access to good quality healthy food.

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INTRODUCTION

The Las Vegas Metropolitan Area (LVMA) is the 28th largest metropolitan statistical area in the nation, with an estimated population of 2,231,647 people (US Census Bureau, 2018). The area contains 32 low-income, low-access census tracts, referred to as food deserts, and many of the residents of these tracts also have limited access to vehicles. Within the LVMA, there are four separate jurisdictions, including Las Vegas, North Las Vegas, and Henderson, all cities, and unincorporated Clark County. The City of Henderson has made significant investments in its local food system by seeking and implementing improvements to food access within its boundaries. For example, city planners and stakeholders created an action plan focused around food using technical assistance from a Local Foods, Local Places grant. They continue to build momentum around their

local food system with development code updates, revitalization projects, and grants to increase access to healthy foods, particularly through their planning department.

Among partners supporting healthy eating is the Southern Nevada Health District (SNHD), the local health department, which engaged both the City of Henderson and the Southern Nevada Food Council (Council) to help it achieve food access related objectives. The SNHD was awarded a Centers for Disease Control and Prevention Racial and Ethnic Approaches to Community Health (REACH) grant. As part of the SNHD REACH project focused on healthy food access in Henderson, Nevada, the SNHD sponsored the Council's effort to research low-income residents' access to fresh fruits and vegetables. The Council approved and added an activity to its annual action plan to conduct focus groups at three community resource centers located in Henderson's identified food deserts. Because the Council receives logistical and research support from the University of Nevada Reno Extension (Extension) staff, the two partnered to conduct the focus groups and created a subcommittee to engage Council members throughout the entire process.

The perceptions of food procurement and healthy food consumption behaviors in low-income, low-access disadvantaged communities are complex and involve several variables. For example, several studies have shown that low-income shoppers do not select the nearest grocery store and obtain food at different types of stores such as food pantries, dollar stores, supermarkets, and supercenters (Liese et al., 2017; Ma et al., 2018; Zachary el al., 2013). Also, research suggests that providing a full-service supermarket in a low-income, low access area does not increase the supermarket's use or influence food consumption behaviors (Ma et al., 2018). Current research investigations report food access, and quality is unequal and contributes to overall poor health outcomes and increased prevalence of chronic diseases (Gregory et al., 2019; Abeykoon et al., 2017). Through the lens of the socio-ecological framework, the local food environment is viewed to be important in shaping the health of individuals, families, and communities. Also, the proximity of food outlets such as grocery stores, supermarkets, dollar stores, corner or convenience stores with and without a gas station, food pantries, and farmers markets may influence food shopping behaviors and dietary patterns (Richard et al., 2011; Cannuscio et al., 2013).

METHODS

The Council REACH Subcommittee developed a set of questions to include in a 15-item pre-survey and a 10-item open-ended discussion guide. The pre-survey and focus group questions resulted from a review of the literature regarding low-income food shopping behaviors. The questions were developed to investigate participants' knowledge of eating healthy, and factors affecting access to grocery/food stores in their community and influencing their grocery/food shopping options. The open-ended questions were designed for informants to describe their own experiences about acquiring food for their households. The moderator's role in the focus groups was that of the learner to gather data for this project (Glesne, 2011). The informants' verbatim responses were captured through the written notes of REACH Subcommittee members.

The focus groups were held at three sites located in the 89015 zip code area in or near SNHD identified priority areas. The one-hour focus group discussions were guided by the 10-item open-ended questions and the protocol/script developed by the Council REACH Subcommittee. The Heritage Park location serves seniors, and though HopeLink serves children, families, and seniors, the focus group conducted there consisted of seniors. The Acelero Learning facility is a Head Start location serving many young Hispanic families and mothers. This session was conducted primarily in Spanish, using a Spanish pre-survey and focus group guide, available upon request.

RESULTS AND DISCUSSION

Descriptive statistics are presented in Table 1 and include participant residence zip codes, age, gender, race/ethnicity, and annual income. Survey results revealed that 81% of the respondents indicated they were the primary grocery shopper. Sixty-four percent indicated they used their car as the primary travel method to obtain food, while 36% walked, used their wheelchair, or relied on public transportation or others.

Table 1. Aggregated focus group participants demographic variables from pre-survey (N=28).

Zip Code (n=28)	Percent of Respondents
89015	54%
89074	11%
89011	11%
89002	11%
89101, 89122, 89104, & 89012	12%
Age (n=28)	Percent of Respondents
23 years to 49 years	25%
50 years to 59 years	7%
60 years to 69 years	29 %
70 years to 79 years	32%
81 Years to 90 Years	7%
Gender (n=28)	Percent of Respondents
Male	14%
Female	86%
Race (n=23)	Percent of Respondents
American Indian or Alaska Native	4%
Asian	13%
Black or African American	13%
Native Hawaiian or Other Pacific Islander	-0-
White	70 %
Hispanic, Latino, or Spanish Origin (n=24)	Percent of Respondents
No	70%
Yes	29%
Yearly Income (n=27)	Percent of Respondents
Below $12,000	48%
$12,000 – $24,999	40%
$25,000 – $39,999	-0-
$40,000 – $59,999	4%
$60,000 – $79,999	4%
Above $80,000	4%

Note: 89101 and 89104 zip codes are not located in Henderson, NV; (n=) varies due to incomplete survey responses

Most respondents ranked in preference order: price/cost (78%), quality of food (60%), and location/convenience (46%) as the top three important factors for shopping for food. The

neighborhood supermarket or grocery store (78%), the farmers market (75%), and the food pantry (60%) were their primary places to get food. The top three secondary places to get food included the neighborhood dollar store (39%), supermarket/grocery store/somewhere else (36%), and the neighborhood supermarket/ grocery store (32%).

The structured interview questions were developed to learn about the focus group participants' access to fresh fruits and vegetables. The informants' verbatim responses were recorded by hand or notes type-written by three Council members present at each focus group. The collected qualitative data were formatted into a document according to the specific group. The written responses were organized and analyzed in several stages. During the first stage, individual responses for each question were coded using a descriptor word. During the second stage, the data were arranged into categories. In the third and final stage, individual responses were aggregated into a unit (group's) response, analyzed across cases (each focus group), and the findings were summarized to identify patterns and themes. Thus, the following themes emerged from this study.

Theme 1: Knowledge of eating healthy

Consistent with the research literature, and among all focus group informants, they extensively described an understanding of the meaning of healthy eating and why eating healthy is essential for the body. Informants knew the purpose of eating healthy. They understood a balanced diet requires consuming a variety of foods and supplements to "*fuel the body*," and eating properly, especially as one ages or is diagnosed with chronic disease conditions such as hypertension and diabetes. The informants' comments generally reached a consensus, but occasionally there was divergence with certain aspects of the question. For instance, in one of the focus groups, a member mentioned "*organic foods*" as healthy foods. Another group member adamantly exclaimed that organic food was "*propaganda*," and the others in the group agreed. Although the focus group members were aware of healthy foods, they felt compelled to justify eating what others might perceive, not-so-healthy foods such as butter, eggs, pasta, cereals, and some meats, even if in moderation.

The younger all-female focus group consisting of Hispanic mothers revealed eating healthy extended to the whole family. They shared concerns about their children not eating healthy because of environmental influences. They suggested ways to combat these influences, mentioning nutrition promotion and environmental changes such as billboards, special community events, and schools to promote healthy eating. They also expressed a desire to receive more nutrition education, such as healthy cooking and meal planning lessons for parents.

Theme 2: Quality, variety, and affordability

All focus group discussion comments agreed that produce (fresh fruits and vegetables) and healthy food consumption depended on access to high-quality, a variety of, and affordable food. Despite a focus group member stating, "*It's pretty much easy to get just about anything. You do need to drive a little bit further to get some of the healthier stuff*," a pattern emerged, suggesting that access was incomplete. The respondents agreed they had access to the neighborhood supermarkets, supercenters (Walmart and Costco), farmers market, food pantries, and the dollar stores. Yet they wanted to shop at stores specialized for health-conscious consumers that were not located in their neighborhood. Their perception of specialty stores such as Trader Joes, Sprouts, and Whole Foods, was that they stocked quality food products, had better prices, and offered a more plentiful variety of products.

Hispanic supermarkets are seen as a benefit to the neighborhood. Each focus group discussion brought up the subject of quality and affordability of produce in the Hispanic

supermarkets. One focus group respondent said, "*The Mexican market has a lot of really nice vegetables, and they're cheaper than the grocery store*." In another focus group, an informant said, "*In the Smith's supermarket, they have three lemons for one dollar, but at Cardenas* [a Hispanic market not located in Henderson], *I can buy a bag."* Focus group members made it clear that access includes cost and transportation. One member replied, "*It* [food] *may be easy to get, but for my budget, it's not*." All focus group informants expressed that grocery stores are accessible, provided reliable transportation is available.

Theme 3: Access and transportation

For some of the seniors, acquiring food was not a concern because their adult children performed the grocery shopping tasks, and they prepared the meals. Seniors and those with physical disabilities conveyed that public transportation was a primary concern for several reasons, such as limited space. When taking public transportation or riding the housing unit van, seniors are only physically able or permitted to carry a few items. A view embraced by other informants communicated that "…*you can't bring too much back, it would be nice if we could stock up, and if the bus didn't make a million stops*." Consequently, food shopping may require taking more trips to the grocery store or "*going without*" an adequate food supply.

Seniors shared fear of getting stranded. They mentioned the [housing] van is no longer available, so residents "*are sent to the Regional Transportation Commission* (RTC), *and Catholic Charities for a ride*" to the market. One focus group informant recounted a time when she was contacted by a woman who was "*stuck*" at Walmart for three hours, and by a man who was "*stranded*" and had no option or idea how to get home. One focus group informant asked, "*What if something happens to your wheelchair along the way?*" to which a fellow informant immediately replied while pointing to a member next to her, "-*hers broke down*."

Extreme heat impedes access. As described by a senior female respondent, "*So, this is my transportation* [motorized wheelchair], *when it's 105 degrees outside, if I have to ride, and even though I have insulated bags, I don't know how far, a half-a-mile or a quarter-of-a-mile. Even in the 105 or greater temperatures with groceries, I don't get cold stuff that can spoil because I'm afraid it will spoil that quickly. So I have to wait until night time, which is not good to be out by myself at night, you know, that brings danger and so I don't know what the answer is*."

Theme 4: Community food resources

The informants perceived the dollar stores and food pantries offered lower-quality, less nutritious, and fewer food varieties – sometimes even out of date or expired. Informants stated that the dollar stores carry some good and some poor-quality products, but it requires "*looking to see what's good,*" and the stores don't keep the same food items stocked consistently. Food pantries were a source of food for many. One focus group member attributed food poisoning illnesses from eating old and outdated foods from the various food pantries. Another shared that if the dates are not legible and expired, seniors cannot read them; therefore, they are at risk of consuming spoiled food. Focus group members reported that the local food bank that delivered food to low-income senior apartments stopped providing their complex. After this, another informant admitted she "*got food poisoning twice from them*" and called the organization to inform them.

Although there were expressions of discontent with food acquisition and shopping choices among all focus groups, there were also positive ones. Community food resources can be especially important to help residents overcome the limitations of living in a food desert. For example, the local mobile fruit and vegetable market was mentioned for "…*being too high, and we can't afford it, the prices are ridiculous... Would you pay $5.00 for a dozen of eggs?*" However, the Heritage Senior

Facility Center discussion revealed the importance of the daily congregate meals they offered there Monday through Friday. One senior informant voiced how the center "*saved my husband and my life, and Meals on Wheels were wonderful.*"

Bulk purchasing was another strategy used by participants that served a two-fold purpose. For example, there was a discussion about residential members joining to pay one member with access to transportation to purchase bottled water and other bulk items at one focus group. The groceries are then divided amongst the group members who contributed to the purchase. Otherwise, they would go without these products because they could not transport them using public transportation.

These focus groups were designed to provide insight into the barriers and facilitators to healthy food access for residents living in or near a food desert. However, a lack of money is the underlying issue for these focus group participants. Many of the focus group members were seniors and unlikely able to work, but improved food access coupled with employment opportunities is an upstream strategy that may benefit the younger participants. Locally operated food-focused businesses, such as a healthy food retail outlet in their neighborhood, may be more meaningful than bringing in a business run by outsiders. City planners are challenged to explore ways to help low-income residents get ahead in their community through job creation and other forms of community development that create economic opportunity and increase access to good quality healthy food.

There are some limitations related to this work that must be considered. Convenience sampling was used; therefore, the focus group sample size limits the study findings' generalizability and may not represent all low-income communities. This study did not ascertain daily fruit and vegetable consumption by focus group members. These focus group findings contrast to other research studies that suggest the availability of supermarkets in low-income communities will lessen the degree of food insecurity. Nevertheless, low-income residents want what all people want - easy access to a variety of affordable and high-quality foods. Further research should investigate the quality, variety, and affordability of foods in local supermarkets in low-income neighborhoods compared to high-income or more affluent communities.

CONCLUSION

To summarize, the principal factor among participants of these focus groups influencing food purchasing was lack of money. These low-income residents are knowledgeable about the healthy foods they should consume. While quality, variety, and affordability of healthy foods are what these focus group participants desire for themselves and their families, these foods may not be accessible to low-income residents, even if supermarkets are located in their residential community. Organizations, food pantries, and other supplemental food resources may not always provide the freshest or best quality of foods but can help residents solve healthy food access challenges. Each focus group requested community-based education focused on nutrition, meal planning, and food preparation. The group of Hispanic mothers with young families expressed a need to provide healthy foods and environments for their families at their schools and within other community settings. Adequate and reliable transportation is an essential element for healthy food access, especially among seniors.

Increasing access to healthy foods is a worthwhile endeavor to help residents of a food desert improve their diet. However, working upstream to help residents become more financially secure may be a more meaningful way to approach food access. These focus group findings suggest that food access is more about affordability than proximity.

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