

**Encontrando la Comida Saludable:
Identifying Food Access Barriers for the Adams County, Pennsylvania Latino Community**

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Abstract

Overwhelming research indicates that recent national trends in U.S. food systems have led to the increased prevalence of processed foods and associated diet-related diseases. The effects of unhealthy diets have been distributed unevenly across the country's socioeconomic and ethnic groups. Certain socioeconomic and ethnic groups face greater geographic, financial and cultural barriers to healthy food access. In Adams County, Pennsylvania, Latinos comprise 5.6% of the population, making them the county's largest minority group, yet little is known about the food access barriers they face. In this study, we used a combination of surveys and focus groups with Latino residents and personal interviews with community leaders to identify the geographic, financial, and cultural barriers to food access for the county's Latino community. We found that, though geographic and financial barriers had little effect on the community's access to healthy food, cultural barriers presented a significant obstacle that needs to be addressed. We hope this study will inform the Adams County Food Policy Council in proposing policy measures that address specific food access issues in the county.

Introduction

Part 1: National Trends in Food Access and Health

Over the past half century, food availability and the respective prices of different foods in the United States have shifted as a result of changes in American agricultural policies. Specifically, two of the main trends in the past century have been mechanization and government subsidies (National Agricultural Statistics Service 2). Whereas in the early part of the 20th century, most farms in America were small family farms that produced a wide variety of crops and were mostly self-sufficient, today most American farms are much larger, highly mechanized, and dependant on only one or two main crops (National Agricultural Statistics Service 2, 3, 10). Beginning in the 1970s, the United States government introduced a new system of agricultural policies that dramatically increased American agricultural production, specifically of commodity crops like corn and soybeans. In his well-known work, The Omnivore's Dilemma: A Natural History of Four Meals, Michael Pollan describes the policy changes of the 1970s, and how “The Sage of Purdue, [Earl “Rusty” Butz], set to work reengineering the American food system, driving down prices and vastly increasing the output of American farmers” (52). The resulting surplus of corn, and the fact that the 1970s system could allow corn prices to fall below the cost of production, led to the growth of industries that utilize the corn surplus, such as the High Fructose Corn Syrup industry and the meat industry (Harvie and Wise 4-5; Pollan 1). These uses of surplus corn have contributed to an increase in the production of unhealthy, processed foods (Pollan 2, Richardson 168, Woolf).

The consumption of this processed food increases the prevalence of unhealthy diets, which play a role in the likelihood of certain health problems such as obesity, heart disease, stroke, high blood pressure, and diabetes (Lang et al. 119). According to a report released by the

United States Center for Disease Control, 34% of adults age 20 and over were obese in 2008 (Ogden and Carroll 1). In addition, this percentage increased significantly from 23% in the late 1980s. Although the report makes no effort to connect the increase in obesity prevalence to a change in diet consumption patterns, it should be noted that within 10-15 years of the passage of Butz's new agriculture policy, obesity rates began their dramatic increase.

The poor health effects resulting from the increased production and availability of processed foods are unevenly distributed among certain socioeconomic groups; this uneven distribution is directly related to the prices of different types of goods. Studies have shown that the prices of certain unhealthy products, like soda, have fallen over time, while the prices of certain healthy products, like milk, have risen. Studies have also shown that lower prices of unhealthy foods are directly linked to higher consumption of these products (Duffy et al. 420). Thus individuals with fewer financial resources can generally be expected to purchase unhealthy foods as long as they remain cheaper than healthier options. Noting the dietary differences between the rich and the poor, Mark Winne, food activist and author, has coined the term "food gap" to refer to the disparity between individuals and families of different socioeconomic statuses in their ability to buy healthy food (Winne 179-182). The food gap manifests itself in "food environments," which refer to the types of retail food stores in a person's neighborhood. Studies have corroborated the concept that the uneven distribution of poor diet trends is partly a result of different food environments, which are a product of social and economic living conditions (Drewnowski and Darmon 900).

One negative type of food environment has been referred to as a "food desert," an area that is very far from "supermarkets with healthy and affordable food" (Shaw 231). The spatial distribution of these geographic food deserts is particularly relevant to low-income urban areas,

which are shown to have reduced availability of healthy snacks and healthy staple foods in local food stores (Laska et al. 1031-33; Larson et al. 74). In another study, Baker et al. found that mixed-race or white high-poverty areas were significantly less likely to have access to the foods necessary for a healthy diet than predominantly white, wealthier areas (as cited in Ford and Dziewaltowski 223). This study adds a racial dimension to the spatial distribution trend of food deserts, which makes the exact determination of causation somewhat difficult.

Shaw observes that the barriers to healthy food access that create food deserts are more than geographic. Other barriers are financial or cultural in nature. For instance, some people may lack knowledge of healthy cooking techniques or the financial resources to afford healthy food (Shaw 232). Others may not have a developed taste for certain types of healthy foods, in part due to the direction of marketing efforts of retailers towards certain populations (Shaw 238). In addition, individuals may feel culturally uncomfortable shopping in certain stores that are primarily set up to attract members of a different demographic group.

A substantial amount of literature has focused on Latino minority communities to determine food access issues particular to this group. The Latino population has disproportionately higher rates of obesity and diet-related chronic diseases compared to Caucasians *and* African Americans (Haldeman 68). Furthermore, the longer Latino and Hispanic immigrants remain in the United States, the more likely they will experience food insecurity and weight gain, and consume poor diets (Himmelgreen as cited in Haldeman 69). Some research suggests that Latinos living in rural areas face significantly higher barriers to healthy food access than their urban counterparts in respect to finding it, affording it, and having time to prepare it. However, other studies have found the opposite effect of rural versus urban location, making the true relationship unclear (Haldeman 75). Studies have also shown that “nearly one in five

Hispanics lacks sufficient access to nutritious food and one in twenty regularly goes hungry;” the food insecurity rate of Hispanics is nearly twice as high as that for non-Hispanic blacks and substantially greater than the rate for non-Hispanic whites (Aizenman 4). Based on this collection of research, it appears that Latinos face greater barriers to food access than their Caucasian counterparts; this trend spurred our exploration of the food access situation of Latinos in Adams County, Pennsylvania.

Part 2: The Adams County Picture

In the context of national food trends, consumers in Adams County have the option of purchasing most of their food from national supermarket chains. There are approximately ten or fifteen “one-stop-shop” supermarkets in the county, which include regional corporations such as Kennie’s, Giant, Weis, and the international corporation of Wal-Mart. These establishments offer tomatoes from California, avocados and peppers from Mexico, and cereals and meats packed in and shipped from factories all over the country (Haddad 2). In addition, the county is not lacking in locally-produced food. It is the state’s sixth-largest agriculture-producing county in terms of the market value of agricultural products sold, and it accounts for nearly 4% of Pennsylvania’s state-wide agricultural market value (National Agriculture Statistics Service 4). In addition, a growing local foods movement is taking place in the county. According to a working document released by the Adams County Food Policy Council, sales at Adams County farmers’ markets increased by 20% in three years. Several organizations, including the Adams County Local Foods Network and the Adams County Gleaning Network, have established themselves within the last five years to discuss ways to bring Adams County products directly to the tables of local consumers (Adams County Food Policy Council 8).

The county's local foods movement indicates a growing farmer and consumer interest in embracing healthy and sustainable diets and lifestyles, but local health statistics paint a picture of a county that struggles to implement healthy eating habits. In 2008, nearly 30% of Adams County residents were obese, and according to a BMI measurement study conducted in 2007, almost 40% of children in kindergarten through sixth grade were overweight or obese (Adams County Food Policy Council 7). Although specific correlations between food consumption patterns and weight-related health issues have not been established for Adams County residents, it is likely that, like the larger national trend, high rates of obesity are in part related to malnutrition and overconsumption of energy-dense, high-calorie foods.

The negative health effects of consuming these high-calorie foods are distributed disproportionately throughout the county. For example, 11% of individuals from households making \$10,000 or less per year are diabetic (though a small portion of these cases—between 400 and 800 individuals—are Type 1 cases), compared to 9% in the \$35,000-\$50,000 range and 2% in the \$50,000-\$75,000 range (Center for Disease Control's Behavioral Risk Factor Surveillance System, as cited in Adams County Food Policy Council 7). These disproportionately distributed health effects may be a result of unequal financial access to healthy foods. In the United States, a family of three must earn less than \$22,880 to receive food stamp benefits (Adams County Food Policy Council 4). However, the same family of three living in Adams County must earn \$39,432 in order to cover all essential living expenses. This difference leaves an annual wage gap of \$16,552 for the family. The wage gap contributes significantly to the food gap in that spending power determines which products an individual or family can feasibly afford.

Although research conducted by the Adams County Food Policy Council has indicated the existence of a food gap in Adams County (Adams County Food Policy Council 3), few details are known about specific circumstances surrounding food access issues of the county's population at large. Even fewer details are known about the food access issues faced by the county's minority population. According to the U.S. Census Bureau, Latinos make up 5.6% of Adams County's population, which makes them the largest minority group in the county (U.S. Census Bureau 3). It is important to note that this number does not account for undocumented Latino immigrants living in the county.

A preliminary interview with Jorge Pérez-Rico, a community member and employee of the Lincoln Intermediate Unit #12 Migrant Education Program, revealed several key issues related to food access among the county's Latino population (see Appendix 2). According to Mr. Pérez-Rico, 95% of the Latino population in the county is Mexican, and most of them are unskilled workers (personal communication). Issues of purchasing power and the food gap are inextricably linked to the problem of documentation; although Mr. Pérez-Rico did not cite a specific statistic, he implied that many members of the Latino community are not documented (and thus not included in the Census count). He also implied that a lack of documentation keeps these individuals in a cycle of poverty. The food gap is an integral part of this poverty cycle, especially when considering the fact that undocumented workers have little or no access to government assistance programs.

This project examines the food gap through the lens of food access issues faced by the Adams County Latino community. Specifically, we ask: what are the geographic, financial, and cultural barriers to healthy food access among Latino residents of Adams County? We explore these barriers with the hope that the Adams County Food Policy Council will gain a fuller

understanding of the access issues faced by the Latino community and will be better equipped to formulate and propose policies that will target access problems at their sources.

Methods

In order to identify the Latino community's geographic, financial, and cultural barriers to healthy food, we collected information from a) Latino residents and b) the leaders of organizations that serve them. Our methods of collecting information were threefold, and consisted of a) surveys, b) focus groups, and c) interviews. In order to understand the *cultural* issues related to food access in the Latino community, we contacted and interviewed five community organization leaders about food access barriers in the Latino community based on their perceptions in working to serve that community. Specifically, we worked with leaders from El Centro, Manos Unidas, Wellspan, Vida Charter School, and South Central Community Action Programs. The latter three are organizations that provide services to a wide range of demographic populations, but also offer specific programs for Latinos (Wellspan Health 1; Vida Charter School 1; South Central Community Action Programs Incorporated 1). Each leader had a unique perspective on the food access issues faced by the Latino community, and we tailored our interview questions (Appendices 2-6) to fit the specialized knowledge of each community leader, based on the organization with which he or she works.

In identifying specific *geographic* and *financial barriers*, we distributed 37 surveys to Latino residents (Appendix 1). According to Arlene Fink, a survey is "a system for collecting information to describe, compare, or explain knowledge, attitudes, and behavior" (1). Surveys provide a simple way for researchers to collect information anonymously and measure overall trends, and we used our survey to more fully understand how Latino residents perceive their own

barriers to accessing healthy food. Seventeen of these surveys were given to families served by Campus Kitchens at Gettysburg College, an organization that re-packages un-served food from restaurants, dining halls, and food stores into healthy meals for families in need (The Campus Kitchen at Gettysburg College 1). Another 3 surveys were collected from to parents of children who attend El Centro/The Center, a small non-profit organization in Gettysburg that provides tutoring services and after-school support to at risk youth, primarily children of Latino immigrants (The Center/El Centro 1). Finally, 5 surveys were collected from Latino families of children who attend Vida Charter School, a bilingual charter elementary school in Gettysburg, Pennsylvania.

Finally, we also worked with an existing women's focus group, comprised of mothers of children from El Centro, to more fully identify and understand the *cultural barriers* faced by Latino families in the county. We facilitated discussions about barriers to healthy eating and provided activities created to assess the knowledge level of healthy eating habits among group participants (Appendix 7). In exchanging knowledge of healthy food with these women, we built a foundation of trust and started an on-going conversation about financial and cultural barriers they face in implementing healthy eating strategies.

Our comprehensive research plan reflects the multi-faceted nature of our research question. Although we certainly gained greater insight into the circumstances associated with food access barriers for the Latino community, we could not contact every Latino resident in the county. Though the results are not necessarily generalizable for all Latino residents in the county, they illuminate important trends. In addition, we must be aware of potential cultural disconnect or discomfort that arose because we are researchers of different socioeconomic and cultural backgrounds than our Latino participants. Thus developing trust with survey respondents, focus

group participants, and interviewees was especially important in successfully utilizing these methods.

Results

Part I: Interviews

Analysis of interviews with community leaders yielded several common themes that emerged repeatedly in discussions of food access in the Latino community. These themes were: the role food in Mexican culture, the contribution of the processes of migration and acculturation to diet and lifestyle change, and the role of cultural comfort in where Latino community members shop. One of the themes expressed particularly by Amelia Contreras, the Executive Director of Manos Unidas, but also implied indirectly by other interviewees, was the importance of food in Mexican culture, and the fact that good food is a major priority for most of the Latino community. Contreras stated that “in our families, food is really one of the priorities,” and expressed her amazement at the amount of time that families (especially mothers) put into preparing elaborate meals and cooking from scratch, even when they work long hours. Yeimi Gagliardi, an employee of Wellspan, also mentioned that some families take the time to grow their own food. Jorge Pérez-Rico indicated that food is a priority in traditional Mexican culture, although he questioned the ability of families to maintain that priority under the new demands that they faced in their lives in United States. Audrey Hess (a part-time employee of the Women Infants and Children supplemental nutrition program) and Paula Olinger (Executive Director of El Centro) also emphasized the natural healthfulness of the traditional Mexican diet, as a result of its emphasis on whole, natural ingredients. Although also noting changes in diet that accompanied immigration, Olinger emphasized the continued cultural preference for unpackaged

foods; “I’d bet that almost 80-90% of the food that [the Latino community in Adams County] eat[s] is unpackaged foods—‘real’ foods.”

This discussion of the importance of food in Mexican culture also ties into another major theme which emerged in every interview: the fact that immigration to the U.S. leads to some important changes in both the diet and food-related practices of Latino families. Contreras noted that in Mexico most people eat unprocessed foods made from fresh ingredients, rather than processed, packaged foods that are common in the United States. She said, “That [the prevalence of packaged foods] is something we have to get used to—and it’s hard!” Almost all of the interviewees indicated that as Latinos live in the United States longer, they begin to eat more processed foods; multiple reasons for this change were suggested. The primary reason seemed to be time. Pérez-Rico highlighted time demands of working long hours and the fact that women, who are traditionally responsible for the Mexican family’s diet, often work full-time when they immigrate to the U.S. Hess and Contreras echoed this sentiment. Hess indicated that Mexican culture has a strong cultural tradition of fresh, whole foods. Based on her nutrition-related work in the Latino community, she believes that many families still strive to maintain this ideal, but that it seems much easier for families with at least one stay-at-home parent. Contreras stated, “Here, you know, everybody goes to work, so there is no time to go to the store everyday to buy fresh. So when we come here, we do start to use more of that stuff [packaged foods], but we still try to use as much as we can of what is fresh.” Finally, Gagliardi also corroborated this idea by noting that time constraints lead to changes in the types of food people buy. She specifically gave the example that some families are beginning to buy packaged versions of traditional Mexican meals from the frozen section of the grocery store; these options offer culturally appropriate meals without extensive preparation time.

The second main reason that interviewees offered for this change in diet was acculturation. According to Gagliardi, the longer families stay in the U.S., the more likely they are to assimilate in to the U.S. culture. Changes in diet as a result of cultural changes in preference seem particularly relevant to the children in the Latino community. Gagliardi and Olinger noted that children of Latino immigrants who grow up in the United States often favor American foods over Mexican foods. Olinger particularly observes the increasing role of American “junk” foods that children eat at school in the changing diets of Latino children. Similarly, Hess stated, “Another thing I hear people tell me is that their kids at school are getting used to eating pizza and hamburgers, and maybe that becomes the norm.”

In addition to changes in diet, lifestyle changes were also noted as results of immigration. Gagliardi, Contreras, and Pérez-Rico noted the fact that in other countries, particularly Mexico, walking is integrated into daily life, and people often walk to work and to the market place. Both Gagliardi and Pérez-Rico noted that in a rural area like Adams County, cars are necessary for everyday travel, which including food shopping. Pérez-Rico seemed to think that it was these kinds of changes in physical activity levels, rather than significant change in diet, that posed a potential problem for the Latino community in regards to health. Regardless of the cause, some interviewees expressed the concern that there were increasing diet-related health problems within the Latino community. Olinger stated “Whereas before it was very rare to see a chubby Mexican, now this whole generation [of kids] is getting quite fat.”

Another theme we explored in our interview questions was knowledge of nutrition and what constitutes a healthy diet amongst members of the Latino community; these findings offer context for the changes that have been observed in Latino diets post-immigration. Although many of the interviewees expressed the fact that the traditional Mexican diet is relatively healthy

because of its emphasis on natural ingredients, some also expressed the belief that most people in the community are not well-versed in nutrition or the components of a healthy diet. Olinger noted, “there’s a very low awareness of what’s healthy and what’s not.” In contrast, Hess indicated that there is a general belief in the Latino community that the traditional diet is healthy, because of its emphasis on whole ingredients and vegetables, and that processed American foods are less healthy and should be avoided as much as possible. Gagliardi, however, indicated that health is not something people in this community frequently think of. She stated that people, especially women, are mainly interested in ways to lose weight rather than how to eat healthily. She indicated that some people turn to diet pills advertised on television, and offered this observation as an example of a lack of awareness of what is healthy. Additionally, Gagliardi noted that an interest in being thin for aesthetic reasons was related to exposure to American culture, with its fixation on being thin. She said that there is also a prevailing (and contradictory) belief in Mexican culture that, in regards to health, “the chubbier the better.” She said that this misconception led some parents to be less aware of the dangers of obesity in their children. Gagliardi noted that she thought that the Latino community gets a significant amount of information from Spanish television programs and channels. She noted the positive example of public health messages about nutrition which have aired in Latin America, but also noted the negative example (mentioned above) of unhealthy body image messages from the media.

One of the most important themes indicated in many of the interviews was that, due to culture and language differences, members of the Latino community are sometimes uncomfortable shopping in certain environments. Both Contreras and Gagliardi spoke from their personal experiences when they first immigrated to the United States, as well as from their interactions with other members of the Latino community. They explained that farmers’ markets

and other stores that require interaction with employees can be intimidating for people who are not comfortable speaking English. Contreras, who frequently shops at the farmers' market in her town, pointed out that she almost never sees any Latinos there, other than herself. She thought that, in addition to the issue of language, another issue may be the fact that most farmers' market patrons are Caucasian, which may make Latinos feel out of place or unwelcome. She also noted a similar feeling of discomfort in small grocery stores that require greater interaction with store employees or other English-speaking patrons, because of language barriers. Gagliardi added that language barriers can constrain what people buy because they might not know the English equivalents for certain Spanish words.

Conversely, other examples were given of places in which Latinos feel more comfortable shopping. Specifically mentioned were small Mexican stores and Wal-Mart. Interviewees mentioned that Latinos often shop at Mexican stores because they feel more comfortable in them. For instance, Contreras mentioned a Mexican store that did not have a stereotypical outward appearance, and said that many Latinos did not go there because they thought it was an American convenience store. Wal-Mart was mentioned by Pérez-Rico, Gagliardi, and Contreras as one of the main places that Latinos shop. Pérez-Rico expressed his belief that Wal-Mart, in order to facilitate shopping and maximize profit, has removed many potential barriers: they have nearly eliminated the need for employee-customer interaction by implementing self-check-out systems, and they have reduced language barriers by featuring images on their products. He said that although people will naturally feel more comfortable in places where they speak the language, Wal-Mart has made the experience easier for those who do not speak English. Contreras and Gagliardi also noted that because Wal-Mart is so large, members of the Adams County Latino community, many of whom are undocumented immigrants, feel like they can

blend in more and will not attract as much attention as if they were shopping in a small grocery store. Contreras stated that in Wal-Mart, “nobody’s noticing you and nobody’s even going to try to engage in conversation with you.” These cultural comfort issues were a major recurring theme in many interviews.

However, cultural comfort is not the only consideration of Latinos in choosing where to shop; convenience is also an important factor. This factor also seems to make Wal-Mart an appealing option. Both Gagliardi and Contreras noted that Wal-Mart has such a large selection that people can get everything they need in one trip. Another feature that makes Wal-Mart popular with the Latino community is the fact that it has dramatically increased its supply of Mexican food products. This increase was also noted for grocery stores such as Giant and Kennies. Olinger, Pérez-Rico, Contreras, and Gagliardi all noted the fact that stores in the area have dramatically increased the amount of Mexican products they stock, but Wal-Mart in particular stood out. In the interviews, there appeared to be a consensus that there is a sufficient supply of culturally appropriate food available in the county’s food stores, and that the supply is much greater than in past decades. Olinger and Contreras both noted that in the 1980s there was only a very limited supply of Mexican foods in the county.

The last major topic covered in the interviews was the financial aspect of food access in the Latino community. None of the interviewees indicated drastic shortages of food or a high prevalence of hunger in the Latino community, although Pérez-Rico emphasized the differences in the situations of documented and undocumented Latino immigrants. He said that the documented immigrants were able to obtain better jobs, making it easier for them to afford food. However, both Olinger and Contreras noted that they have only heard of a very limited number of cases in which Latino families could not afford food. Contreras noted that in the past year, she

had referred three families to receive food stamps. Olinger noted that in the past there has been very few cases of Latinos accessing emergency food services, but that there is a growing awareness of the services offered and that this awareness has led some families to access the services in times of need. However, she explained that the need for supplemental food services was not a normal occurrence, but that it became necessary in extreme circumstances, such as cases in which a family member had suffered an extreme accident and was no longer able to work. Olinger noted that many Latino immigrants hold more dangerous jobs, thus increasing the potential for serious accidents, and she offered several dramatic cases of accidents in the last year that have made families dependent on emergency food services at least temporarily. Both Olinger and Contreras noted that there exists an informal community support network within the Adams County Latino community (mostly composed of relatives) that sometimes helps provide food in times of need.

Part II: Surveys

The demographic questions on the survey indicated that more than half of the respondents lived in homes with 2 adults, with 3 people indicating that they were the only adult in their home, and 5 others indicating that there were more than 3 adults in their home. Fifteen of the seventeen respondents indicated that Spanish was the only language spoken in their home, with only two indicating that they spoke both Spanish and English in their homes. There were no clear trends regarding the number of children in the respondents' households, responses ranged from one to more than 5 children, with two children being the most common response. The most dramatic demographic result that was the fact that the overwhelming majority of respondents had lived in their current home for less than one year or less, but an even more overwhelming majority had lived in Adams County for over five years (see appendix 7, figure 1).

We also asked two questions about convenience of accessing food. Respondents were split evenly on the issue of whether they had enough time for food shopping. Respondents overwhelmingly indicated that they traveled by car to do their food shopping (and thus had access to a car), with the remaining three respondents indicating that they carpooled with other people (see appendix 7, figure 2).

Questions regarding the financial aspects of food access in the Latino community yielded somewhat contradictory results. Although a large majority indicated that they thought their family obtained the food that they needed on a regular basis, the majority of the respondents indicated that they could only *afford* the food they needed sometimes or rarely (see appendix 7, figure 3). The results relating to the health aspects of individuals diets generally seemed to indicate that most members of the Latino community have a healthy diet- based both on their own perceptions and indications of infrequent consumption of fast food (see appendix 7, figure 4), though this obviously only covers a narrow range of diet issues.

Part III: Focus Group

The focus group session, which was conducted with Latina women whose children are students at El Centro/The Center, revealed many details about the way some members of the Adams County Latino community interact with food. The session provided information on the unique perspective of Mexican mothers in the community. While only four women participated, each of them contributed to the conversation about food and health. The first activity, which required the women to think about the differences between Mexican and American meals, spurred a discussion about the importance and prevalence of whole foods in the Mexican culture (Appendix 8). All four women noted that while the creation of authentic Mexican meals depends on the availability of fresh ingredients, many American meals are made from packaged and

canned goods. When one group leader pointed out that fresh ingredients are more expensive in United States grocery stores, the women adamantly explained that benefits of buying fresh ingredients were worth the investment. Later, one woman explained that her husband told her she should never limit her food purchasing habits to a budget: if the family needed cut costs, they would spend less on clothing and shoes. All of the women were proud that they try to buy as many whole and fresh ingredients as possible and cook mostly Mexican foods from scratch.

While whole foods are evidently essential to the Mexican diet, some women explained the ways in which living in the United States had limited their ability to cook with whole ingredients. Two women commented on their impression that North Americans work long hours and buy pre-prepared foods because they have little time to cook. They observed that because work hours limit shopping schedules, most individuals choose to shop once a week, planning menu choices based on what they buy. According to these women, this situation is different from the tendency of Mexicans to go to the market several times a week to ensure that ingredients are as fresh as possible. The once-a-week purchasing habits—to which the women, who work long hours, have had to conform—limit the types of fresh ingredients an individual can buy. In addition, another woman explained how the availability of processed ethnic foods in national supermarket chains had changed her food purchasing habits. In particular, she explained how Wal-Mart's release of a new, cheap, bottled version of *mole*—a traditional Mexican sauce made with chocolate—had allowed her to prepare some Mexican dishes in a much shorter time. She observed that, while the bottled *mole* paste allowed her to cut costs and preparation time, the resulting dish was not as flavorful and authentic as the *mole* she remembers from her childhood in Mexico.

While ethnic foods are easily purchased in processed form, the women demonstrated a particularly broad range of knowledge about the benefits of eating unprocessed, whole foods. One woman—the same individual who remembers *mole* from her childhood—works on a farm and tries to obtain seasonal vegetables from her employers when she can. As mentioned above, all of the participants emphasized the importance of purchasing whole fruits and vegetables in spite of the greater cost. During the session's second activity, women were asked to confirm or reject the validity of two statements: 1) low fat and low sugar foods are always healthy and 2) foods containing fat should always be avoided. Although they believed the first statement was true, during the discussion that followed it became apparent that they generally understood the dangers of consuming low-fat or low-sugar processed foods, which often contain chemicals. They believed the second statement was true, but also demonstrated their understanding of the necessity of some fats in a healthy diet. Overall, there seemed to be few limits in the women's knowledge of nutrition and health, aided by their cultural appreciation of whole ingredients. In general, our three-pronged approach to collecting data illuminated the positive and negative results of our examination of the Latino community's food access barriers.

Discussion

The Good News

Although we found some evidence of barriers to healthy food access in the Latino community, there were three main positive findings. These were: the healthfulness of the traditional Mexican diet, which provides a cultural basis for health among Latinos; the seemingly high level of knowledge among this group about what constitutes a healthy diet; and the high availability of culturally-appropriate foods in local food stores, which makes it easier for the

Latino population to maintain their traditional diets. The first two of these findings were very consistent with general findings in the academic literature, though the final finding relating to the availability of culturally-appropriate foods seems to be a topic which has not been widely researched.

Our findings related to the healthfulness of the traditional Mexican diet seemed to be very consistent with the academic literature regarding the diet of this immigrant group. Romero-Gwynn et al. find that the Mexican diet is high in complex carbohydrates, animal and vegetable protein, beta-carotene, fiber, calcium, iron and many major vitamins (7). In a study about the practices of Mexican-American women in maintaining the health of their families, Mendelson found that “All the participants felt that optimal physical health was a consequence, in part, of good nutrition and gave careful consideration to their children’s diets” (153).

Relating the Mexican diet to cultural knowledge of nutrition and health, Mendelson also found that “Several participants felt that a traditional Mexican diet...was the source of their children’s physical vigor and an important point of cultural continuity” (153). This strongly echoed our findings in both the interviews and focus groups; it was a recurring theme that members of this community saw major differences between the “American diet” and the “Mexican diet” and felt that the Mexican diet was much preferable in terms of health. Their perception regarding the health impacts of adopting an American diet seem to be supported by the academic literature; many researchers have found that acculturation and the adoption of an American diet among Latino immigrants is associated with declines in diet quality and overall health. For instance, Satia-Abouta et al. find that acculturation is linked to the adoption of a less healthy diet, and that one method for public health workers to improve health outcomes in this community is to encourage immigrants to maintain traditional eating habits (1117). Aldrich and

Variyam also find support for the healthiness of traditional Hispanic diets. They find that Hispanics surpass non-Hispanics in diet quality, especially Spanish-speaking Hispanics (Aldrich and Variyam 53).

However, the findings of Aldrich and Variyam contradict our own research in respect to the level of knowledge among Latinos about nutrition and a healthy diet. Alrich and Variyam found that the Spanish speakers in their study “know less about nutrients in foods and diet-disease connections than do non-Hispanic Whites and Hispanic English speakers, although Spanish speakers attach more importance to having a healthful diet” (54). While this result does support our finding that there is a cultural emphasis on eating healthy, it does not match our finding that Latinos have a relatively high knowledge of nutritional health. However, it is interesting to note that this study differentiated between language spoken by the participants; the researchers noted that “limited knowledge could reflect Spanish speakers’ limited access to advertising and labeling information in English” (Aldrich and Variyam 54). Alrich and Variyam argue that nutrition education programs for Latino populations need to advocate both preservation and change in diets. They note that many aspects of traditional Latino diets are very healthy. They recommend that these traditions be continued, though they note that substitution of low-fat dairy products and use of smaller amounts of oil would improve the health quality of this diet.

In regard to our final positive finding that there is a high availability of culturally appropriate foods for the Latino population in the food stores of Adams County, there appears to be very little research regarding the level of availability of culturally appropriate foods for Latinos in different regions of the United States. Because of this lack of research we are unable to determine if our findings in this respect fit the norm for rural areas in the United States.

However, given that this region has a relatively high population of Latinos, it makes sense that businesses would seek to access that market by providing the foods the Latino community prefers. It is clear that the existence of this business niche in local food sales is beneficial for the Latino population of Adams County. Not only is it convenient for this population to be able to access the foods they desire, but this access is also likely to have positive health impacts if it allows Latinos to maintain the traditional diets that they had prior to migration.

The Challenges

Despite the positive trends associated with the role of healthy, whole foods in Mexican culture, our results indicate that Latinos who come to the U.S. experience a number of challenges as they attempt to maintain their traditional diets. In the Adams County Latino community, geographic and financial components of food deserts do not seem to pose major barriers to healthy food access. The primary barriers are associated with cultural difficulties, the majority of which result from the process of migration. These cultural struggles can be broken into two components: acculturation and cultural comfort. The former focuses on Latino integration into the U.S. culture and lifestyle, while the latter emphasizes how the Latino community remains on the periphery of the U.S. national and cultural identity, attempting to maintain their own cultural traditions.

The process of acculturation in the U.S. is especially difficult for Latinos who still identify with their ethnic roots, and this struggle was demonstrated in the way interviewees and focus group participants described diet and lifestyle changes that accompany migration. Many interviewees observed that these changes are a result of time constraints, a reality that arises when multiple adult family members begin working long hours. These time constraint barriers were reiterated through our survey and focus group results. More than half of the survey

respondents indicated that they do not have enough time to shop for food during the week, and several focus group participants mentioned that they have changed their food shopping routines from daily market visits to weekly outings. These trends have also been observed in previous studies, several of which indicate that convenience is a primary factor in determining shopping habits of Mexican immigrants (Lindberg and Stevens 157; Peñaloza 43).

Shopping habits and food choices are not only determined by the need for convenience, but also by the desire of some family members to be a part of the U.S. culture. Our interviewees noted that Latino parents struggle to maintain their families' traditional diets in part because children become accustomed to the processed foods they eat at school and in their friends' homes. In addition, several of our focus group participants mentioned that their children either do not like or refuse to eat vegetables, and one survey participant mentioned that she does not make foods containing vegetables because her children will not eat them. The role of children's eating habits in the formulation of family diets is unclear and receives mixed attention from the existing literature. One study indicates that children's diets change drastically as a result of the foods they consume in the U.S. school system (Colby et al. 336). Meanwhile, another study claims that Mexican women are responsible for the poor eating habits of their children, who seem to know little about the dangers of unhealthy diets (Olvera-Ezzell 425).

While our research did not indicate that women pass on poor eating habits to their children, some results revealed that when it comes to healthy eating, women are more concerned about weight loss and physical appearance than they are about avoiding non-communicable diseases like diabetes and hypertension. One interviewee mentioned that some Mexican women rely on advertised weight loss methods and diet pills, which they learn about from television commercials. While our focus group and survey results did not address this topic, one study

observes a similar trend, noting that Mexican women become frustrated when they unsuccessfully apply these weight loss methods (Lindberg and Stevens 158).

The struggle to lose weight demonstrates the pressures felt by Latinos—particularly Latino women—to assimilate and retain cultural traditions at the same time. In the Mexican culture, slightly overweight individuals are considered healthy and attractive, while thinness is an attribute praised in U.S. society (Lindberg and Stevens 157). Nevertheless, when Latino women come to the U.S., they are encouraged to embrace societal norms, even if it means rejecting the customary beliefs from their countries of origin. This struggle is only one of the ways Latinos experience cultural discomfort when they migrate to the U.S., and this discomfort is demonstrated in their feelings about food purchase and consumption.

This lack of cultural comfort was expressed in our research results through our interviews and surveys. Several interviewees mentioned Latinos' tendency to shop at Wal-Mart, which limits employee-customer interactions, and in small Mexican stores, which provide culturally familiar settings for its Mexican patrons. In addition, the vast majority of our survey respondents mentioned Wal-Mart as the primary store from which they purchased their food, a result that confirmed the observations provided by our interviewees. This result is confirmed by existing studies. For example, Peñaloza mentions language barriers and cultural comfort issues as factors that limit shopping locations for Latinos (42). While language and cultural divisions are real barriers to healthy food access, Peñaloza also notes that some stores cater to Latino populations by maintaining a Spanish-speaking workforce. This observation sheds light on the idea that cultural comfort issues are two-sided, and that suppliers also contribute to them.

While issues of cultural comfort and acculturation present the biggest challenges to healthy food access in the Adams County Latino community, they can be fortunately factors

which can be addressed at the local level. While geographic and financial barriers may result from institutional systems that can be difficult to eliminate without a top-down approach, cultural barriers can be addressed through education and the interaction of individuals at the grassroots level. Regardless of federal and state systems, Adams County citizens have the ability, and the choice, to cross cultural boundaries, eliminate prejudices, and welcome new cultures without making them feel pressured to assimilate. This ability to enhance cross-cultural communication and understanding holds important implications for the future.

Limitations

We would like to emphasize the fact that this study is a pilot study; the time limitations of a single semester meant that it was necessary to focus on the sources of information that were easily accessible. With more time and resources this study could be greatly expanded to include more survey participants throughout the county, and more random-sampling methods could be utilized. As it was, due to limited ability to access individuals unassociated with our partner organizations, the vast majority of our participants were residents of the town of Gettysburg. This may have skewed the results as the town of Gettysburg is relatively wealthy in comparison to other parts of Adams County; it is also characterized by businesses concentrated in one central area, which may have influenced our findings in regard to the existence of geographic access barriers. Nonetheless, this study has yielded a number of thought provoking findings which could be valuable in helping organizations such as the Adams County Food Policy Council to better serve the food needs of the community.

Conclusion

Based on the observed significance of cultural barriers to food access in the Latino community of Adams County, Pennsylvania, we have identified two recommendations to ensure the health of this community and their access to nutritious food. First, we recommend that members of the Latino community maintain cultural traditions in family life. This initiative may involve outreach efforts to encourage pride in Latino (in this case, Mexican) culture; this outreach would be especially valuable among children, who often feel the pressure to integrate with the culture of their peers, particularly in regard to diet. Our second recommendation is to increase interaction and understanding between cultures in order to break down the cultural comfort barriers which limit where Latinos purchase their food. Although these are broad and challenging recommendations, it is our hope that existing organizations with interests in food or social justice will integrate these suggestions into their community programs. Finally, while future research may provide clearer findings and a more nuanced picture of the Latino community's food access barriers, these obstacles are less significant than we initially expected. The community does not face geographic and financial barriers in maintaining healthy diets, and the cultural barriers it encounters could be eliminated through community outreach and education efforts.

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