

Kris Nelson Community-Based Research Program

...a program of the Center for Urban and Regional Affairs (CURA)

The Food Desert in St. Anthony Park

Prepared in partnership with
Saint Anthony Park Community Council

Prepared by
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The Food Desert in St. Anthony Park

Prepared for

The St. Anthony Park Board

Prepared by

Bettsy Hjelseth

September 04, 2016

Abstract:

A food desert is known as an area that has limited access to affordable and accessible food, and the residents in St. Anthony Park live in one. This research study explored how the food desert in St. Anthony Park affects section 8 housing residents, as well as viable solutions to eliminating it. The researcher mostly used surveying and google research. She found that the residents in St. Anthony Park are negatively affected by living in a food desert, and putting in a food shelf or grocery store would be beneficial to residents of St. Anthony Park.

Introduction:

St. Anthony Park is one of the 17 district councils in St. Paul. In the 1960s, the Council was known as the St. Anthony Park Association¹. During this period, the Association focused on addressing deteriorating housing conditions, as well as concerns that too many St. Paul University students used local streets for parking.² At the time, differing demographics in education and median income between the north and south sides of St. Anthony Park became noticeable.³ This research project originates from St. Anthony Park's Community Council continued focus on addressing the demographic differences between the two sides.⁴

St. Anthony Park, a neighborhood in St. Paul, lives in a food desert because it lacks access to healthy and affordable food. The Food Empowerment Project defines a food desert as a “geographic area where residents’ access to affordable, healthy food options (especially fresh fruits and vegetables) is restricted or nonexistent due to the absence of grocery stores within convenient traveling distance.”⁵ This barrier creates negative health consequences like obesity and diabetes. As communities across the country begin to discuss food deserts, policymakers need to take notice. Several solutions exist to combat food deserts. This report catalogues those strategies and identifies the best option to provide access to healthy food for local residents in St. Anthony Park at little to no cost.

In a collaborative partnership between the Center for Urban and Regional Affairs (CURA), the St. Anthony Park Community Council (SAPCC), and LydiaPlace, low income residents in the south side of St. Anthony Park had the opportunity to provide anonymous input through surveys. The surveys looked at their ability to access healthy, culturally appropriate food sources in the neighborhood, as well as their vision of what an equitable food system would look like. SAPCC's Equity Committee and staff designed the basis of the project and received funding for a summer intern from CURA to explore food needs in the area.

Background:

For the purposes of this report, the St. Anthony Park Community council considers a food desert a low income area where urban residents have to travel more than a mile to access affordable and healthy food. Currently, 23.5 million Americans live within one of the 6,500 food deserts in the United States.⁶ Research and studies have found that a majority of the people who

live in food deserts belong to a minority and/or a low-income group.⁷ Many legislators and others have begun to work on eliminating food deserts throughout the United States.

In a Research Gate article by Renee Walker, Christopher Keane, and Jessica Burke, two major theories are discussed that explain why food deserts exist. The first theory states that with all the larger grocery stores and supermarkets that have formed in the suburban areas, competition increases for stores in urban areas.⁸ Many believe that stores located in suburban areas have more room for parking, longer hours of operation, and oftentimes more options of higher quality food at lower prices.⁹ With all these advantages for suburban stores, it makes it a lot harder for urban stores to compete.¹⁰ Another theory involves the huge demographic change that happened between 1970 and 1988.¹¹ Some believe it has to do with the segregation that took place during this period when many of the wealthier families and individuals moved out of the cities and into the suburban parts of the country.¹² They took their money with them, and this led to the closing of many supermarkets within the urban areas.¹³

Businesses oftentimes do not want to open up grocery stores in a food desert because they have a perception that the residents who live in a food desert will not buy healthy foods at a price that businesses can make money.¹⁴ They are not confident that they will make a profit in urban areas because there is not enough research done to show how much groceries food desert residents will purchase.¹⁵ Also, many grocery stores and supermarkets have very little experience, information, and knowledge when it comes to trying to create a successful business in a food desert where a large portion of low-income residents live.¹⁶ Other causes for supermarkets and grocery stores not opening up within urban areas include zoning rules that regulate the size and use of buildings, and the high price of land within city limits.¹⁷

Living in a food desert can lead to many unhealthy outcomes like making poor food choices because there are little to no healthy and affordable food options to choose from-- oftentimes leading to obesity.¹⁸ As conventional wisdom states and research supports, eating more fruits and vegetables can reduce obesity, diabetes, and other negative health problems.¹⁹ Food deserts restrict the healthy food options available to community members. According to Minnesota2020, providing people with affordable and accessible food reduces healthcare costs, increases productivity, and improves the overall life quality for people.²⁰

Lack of accessible transportation to reach a grocery store can create a food desert.²¹ Many people in urban areas rely on public transportation to get around because they do not have

a vehicle or can not drive. If an area lacks reliable public transportation, it makes it very difficult for those people who live in a food desert to travel the distance needed to get to the nearest grocery store or supermarket. A study found that people eat healthier food when they have better access to places that sell these healthier foods.²²

Residents who live in food swamps have an excess amount of unhealthy food that residents can easily access. An area can also be a food desert if it lacks healthy food. These areas may contain numerous gas stations, corner stores, and fast-food restaurants, but residents cannot access healthy food. This makes it difficult to motivate residents to travel the distance to buy healthy groceries when they can go get a burger at McDonald's for \$1. When people live in a food desert, they oftentimes have a higher chance of eating unhealthy food because they can more easily acquire this type of food at fast-food locations and gas stations located near them.²³

If residents in an area lack affordable food, a food desert exists. Sometimes areas have accessible grocery stores, yet residents still live in a food desert because the stores only provide expensive groceries. The high prices of some small grocery stores in food desert regions limit the purchasing power of local residents because they do not have enough money to buy the more expensive, healthy food. John Cawley did a study at Cornell University and in this study he discovered that when adjusted for inflation over time, fruits and vegetables have increased in price and fast food and soft drinks have decreased in price.²⁴

Some findings suggest that solving the problem of food deserts will take more than giving people access to healthy and affordable food.²⁵ Many believe that the socio-economic attitudes that people have on food needs examining.²⁶ Education increases the likelihood that people understand just how important eating healthy is, and it also teaches people ways to make healthy food.²⁷ It is important for people to know and understand how important eating healthy food is on their health and overall quality of life so that they can make healthy food choices.

A study done in Philadelphia found the importance of increasing supermarket access because it gives people better perceptions when it comes to their food access.²⁸ However, more incentives are important so that people will actually make healthier food choices.²⁹ In other words, increasing access for people makes up only a portion of the solution to food deserts. People can be encouraged to eat healthier if stores change their marketing to promote healthier foods.³⁰ In the end, people still might not choose healthy food even if its affordability and availability is manageable so other incentives need to be given.³¹

Studies have been done to see why people do not eat enough healthy foods.³² The findings discovered that the main barriers people have include: how easy getting to a grocery store is, the price of healthy food, and the taste of healthy food.³³ In light of these results some solutions have been brainstormed. First, increasing the amount of access people have to reach healthy food remains critical.³⁴ This would include increasing access to public transportation, especially for those family and individuals that do not own their own vehicle.³⁵ Second, literature shows that it is helpful to provide classes to those interested in understanding the importance of eating healthy, as well as to give people the opportunity to learn how to make healthy food themselves.³⁶ Finally, it is important to receive community input on ways to solve food deserts because community support and compliance is necessary for success.³⁷

A study done in New Orleans in 2001 looked at how fruit and vegetable intake varied depending on the distance it took to travel to a grocery store, as well as the availability of fruits and vegetables on grocery store shelves.³⁸ The vegetable findings showed that people ate more vegetables as they lived closer to a grocery store.³⁹ It showed that people ate .35 more servings of vegetables for every additional meter on a shelf that contained vegetables.⁴⁰ On the other hand, the fruit findings showed no relationship between the amount of fruit people ate and the availability of it on shelves.⁴¹ However, being closer to grocery stores that provided fruit increased the amount of fruit that people ate.⁴²

One solution to solving food deserts involves creating more farmers markets within food desert areas, as well as allowing EBT card usage at the markets.⁴³ Currently, the Midtown Farmers Market, the Minneapolis Farmers Market, and the Northeast Minneapolis Farmers Market allow for EBT usage.⁴⁴ Allowing EBT cards as a form of payment makes it so much easier for low-income residents to access healthy food that they can afford. Similarly, Blue Cross Blue Shield in Minnesota has started something known as Market Bucks. This is where at participating markets, Blue Cross Blue Shield matches every EBT dollar, up to five dollars, that people spend on fruits and vegetables.⁴⁵

The Healthy Corner Store Program, another ineffective solution to alleviating the problem of food deserts, started in Minneapolis in 2009.⁴⁶ The Program came after the Minneapolis City Council approved a 2008 ordinance which required stores to provide a minimum of five different produce items.⁴⁷ However, in 2009 only twenty-five percent of local stores actually followed the guideline.⁴⁸ The Healthy Corner Store Program provided 40 local

stores in food desert areas a total of \$29,000 in state and city funding that they used to purchase and provide a small amount of fruits and vegetables for sale.⁴⁹ However, a majority of the stores did not sell much or make any profit from the fruits and vegetables, and they discovered that even though some stores carried healthy food, customers oftentimes still chose to purchase unhealthy food.⁵⁰ Because of the non-success of this program, only 10 local Minneapolis stores currently receive funding to supply fruits and vegetables for customers.⁵¹

Methodology:

The researcher used both qualitative and quantitative methods for this study. The researcher used surveys as the main source of research in this project. This study surveyed three different sample groups: section 8 housing residents in South St. Anthony Park, St. Paul District Councils, and local food shelves in the area.

Section 8 Housing Residents Survey:

The first sample had survey questions with both open ended questions that allowed for a thought-out response, as well as specific multiple choice questions. The researcher handed out surveys to residents of Section 8 housing in St. Anthony Park because food deserts mostly affect low-income residents. A researcher went to Seal Hi-Rise and Hampden Apartments to find respondents that would and could fill out a survey. Respondents filled out the surveys in July and August of 2016.

The researcher used different surveying types so that a wide array of people could take it. She used online surveys done on Google Drive, paper surveys, and a presentation board. Volunteers answered eleven questions on the paper and online surveys -- the long surveys. For the paper surveys, respondents completed them and turned them back in. Similarly, respondents accessed Google Drive surveys online by using a link or quick response code. The researcher also used a presentation board that asked five multiple choice questions where respondents would select their answer choice by using stickers. The presentation board, known as the short survey, accommodated the respondents who, for various reasons, did not want to or were unable to fill out the long form survey.

The questions asked gave an understanding of what it is like to live in a food desert. The researcher analyzed the results by making an excel document of the answers. She then tallied up

the multiple choice questions and coded the open ended responses by similarities to make analyzing the results simpler. The researcher received a total of 60 responses. (See Appendix A for the survey questions asked).

District Council Survey:

The researcher used a second survey that had a questionnaire with five open ended questions. Survey respondents answered them online through Google Drive. The sample surveyed included the other 16 District Council staff in St. Paul, and they received an email that provided a link to fill out the online survey. The researcher surveyed other district council staff so that we could see their thoughts on food equity and ways that they combat food scarcity in their district. This provided background information and ideas on what District 12 could implement to improve food access and equity conditions locally. The surveyor used online surveys because of the convenience of them. The researcher amalgamated and analyzed surveys for similarities. The voluntary responses accounted for 43.75% of all District Councils -- a high response rate. (See Appendix B for the survey questions asked).

Food Shelf Survey:

Apart from surveying online, on paper, and on the presentation board, a third investigative tactic used phone calls to contact 22 other food shelves in the area. The researcher accessed websites online for an initial search and then to answer further inquiries, she made phone calls to surrounding food shelf staff during June of 2016. The information found gave us an idea on how local food shelves operate. (See Appendix C for the survey questions asked).

Results and Analysis:

The researcher explored viable solutions to eliminating food deserts in St. Anthony Park. She surveyed section 8 housing residents in South St. Anthony Park, other community councils in St. Paul, as well as surrounding food shelves.

Section 8 Housing Residents Survey:

The surveyor chose residents of Seal Hi-Rise and Hampden Apartment for surveying. In the end, the researcher received a total of 60 responses from section 8 housing residents in South St. Anthony Park. Of the responses, 54 responses came from the long survey and six responses

came from the presentation board. Out of the 54 responses from the long survey, the researcher received 53 responses from the paper survey and one response from the online survey.

The first question asked residents how often they bought food and each respondent answered once. Answers were received from both the long survey and the presentation board, and a total of 56 people responded. Out of the 56 responses received (48 from the long survey and 6 from the presentation board), 24 respondents, or 42.9%, stated that they bought food once a week; nine respondents, or 16.1%, stated they they bought food twice a month; 8 respondents, or 14.3%, stated they they bought food once a month; and 6 respondents, or 10.7%, stated they bought food two times a week. The respondents answered every day and three times a week a total of three times each. The respondents answered once or twice a month a total of two times, and a total of four respondents did not answer.

The second question asked residents where they bought food, and residents were allowed to answer more than once. Answers were received from both the long survey and the presentation board, and a total of 60 respondents responded. Out of the 114 responses, 44 responses, or 38.6%, stated Cub Foods; 14 responses, or 12.3%, stated Aldi; 14 responses, or 12.3% stated Walmart; 10 responses, or 8.8%, stated Rainbow; 8 responses, or 7.0% stated Target; 5 responses, or 4.4%, stated Hampden Park Co-op; 3 responses, or 2.6%, stated an Asian store; and 3 responses, or 2.6%, stated a gas station. The respondents answered Costco, food shelf, and Sam's club two times each. The respondents answered Mississippi Market, Lunds & Byerly's, Trader Joe's, Speedy Mart, Kemps, Roseville Mall, and Somalian Grocery store one time each.

The third question asked residents how they get to the place where they buy food, and there were a total of 87 responses because respondents were allowed to answer more than once. Answers were received from both the long survey and the presentation board, and a total of 60 respondents responded. The options given to respondents included: walking, biking, driving vehicle, family or friend driving vehicle, public transit, metro mobility, or other. Of the 87 responses, 34 responses, or 39.1%, stated they used public transit; 19 responses, or 21.8%, stated they drove a vehicle; 14 responses, or 16.1%, stated a family/friend drove them; 9 responses, or 10.3%, stated they walked; 6 responses, or 6.9%, stated they used metro mobility; and 2 responses, or 2.3%, stated their PCA drove them. The respondents answered biking, Schwan's Food Truck, and delivery one time each.

The fourth question asked respondents how many dollars they spent on groceries each month for their entire household. Answers were received only from the long survey and 49 respondents responded. The answers ranged from \$16 to \$500. Out of the 49 responses received, it was found that the 49 households spend an average of \$7,980 on groceries each month. This means that each individual household spends approximately \$162.86 on groceries each month. For the responses that answered both how much money they spend on groceries per month for their household and how many people live in their household, it was found that about \$7,670 was spent on groceries each month for 57 people. This means that approximately \$134.56 is spent on groceries per person each month. On average, this means that section 8 households in St. Anthony Park spend approximately \$4.42 per person each day on groceries.

The fifth question asked what foods respondents would like to see provided. Respondents could answer more than once, and the researcher received a total of 168 responses from 51 respondents. Of the 168 responses, 25 responses, or 14.9%, stated vegetables; 21 responses, or 12.5%, stated fruit; 18 responses, or 10.7% stated meat; 12 responses, or 7.1%, stated milk; 10 responses, or 6.0%, stated bread; 6 responses, or 3.6%, stated eggs; and 5 responses, or 3.0%, stated canned items. Potatoes, butter and rice received 4 responses each or a total of 2.4% each. Pasta, TV dinners, soup, and fish received 3 responses each or a total of 1.8% each. In addition to the 18 meat responses, 11 responses, or 6.6%, specified a particular meat such as fish, chicken, goat meat, ground beef, fish bowl, ground turkey, sausage, and ham. Three respondents did not answer.

The sixth question asked respondents if they can afford the foods that they want to eat. Out of the 52 respondents, 19 respondents, or 36.5%, stated no; 19 respondents, or 36.5%, stated yes; 10 respondents, or 19.2%, stated somewhat; 3 respondents, or 5.8%, stated mostly; and 1 respondent, or 1.9%, stated barely. Two respondents did not answer.

The seventh question asked respondents if they have ever used a local food shelf. Out of the 53 respondents, 33 respondents, or 62.3%, stated yes and 20 respondents, 37.7%, stated no. One respondent did not answer.

The eighth question asked those respondents that said that they had used a local food shelf how they got there. Respondents were able to answer more than once, and a total of 46 responses were received from 33 respondents. The options given to respondents included: walking, biking, driving vehicle, family or friend driving vehicle, public transit, metro mobility,

or other. Of the 46 responses, 16 responses, or 34.8%, stated they used public transit; 9 responses, or 19.6%, stated a family or friend drove them; 8 responses, or 17.4%, stated they drove a vehicle; 6 responses, or 13.0%, stated they walked; 5 responses, or 10.9%, stated they used metro mobility; and 2 responses, or 4.4%, stated their PCA took them; A total of 21 respondents did not answer.

The ninth question asked those respondents that said that they had used a local food shelf how their experience was. A total of 26 respondents answered once each. Of the 26 responses, 17 responses, or 65.4%, stated they had a positive experience, 5 respondents, or 19.2%, stated they had a neutral experience; and 4 respondents, or 15.4%, stated they had a negative experience. A total of 28 respondents did not answer and 20 of them had never used a food shelf anyways.

The tenth question asked residents if there were any barriers to their buying groceries. A total of 80 responses were received from 37 respondents. The options given included: weather, health, not able to get a ride, affordability of groceries, transportation difficulty or cost, or other. Of the 80 responses, 23 responses, or 28.8%, stated affordability of groceries; 18 responses, or 22.5%, stated weather; 16 responses, or 20.0%, stated health; 16 responses, or 20.0%, stated transportation difficulty or cost; and 7 responses, or 8.8%, stated they were not able to get a ride.

The researcher also asked seven confidential demographic questions on each of the long surveys. The first question asked gender and the options given included: male, female, or other. For the respondents that answered, 27 respondents, or 50.9%, stated male and 26 respondents, or 49.1%, stated female. One respondent did not answer.

The second demographic question asked respondents their age range. The options given included: under 18, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75 and older. Of the 53 respondents, 1 respondent, or 1.9%, stated under 18; 1 respondent, or 1.9%, stated between the ages of 18 and 54; 5 respondents, or 9.4%, stated between the ages of 25 and 34; 4 respondents, or 7.6%, stated between the ages of 35 and 44; 11 respondents, or 20.8%, stated between the ages of 45 and 54; 20 respondents, or 37.7%, stated between the ages of 55 and 64; 7 respondents, or 13.2%, stated between the ages of 65 and 74; 4 respondents, or 7.6%, stated 75 or older. One respondent did not answer.

The third demographic question asked respondents their ethnicity. The options given included: White, Hispanic or Latino, Black or African American, Native American or American Indian, Asian or Pacific Islander, and other. Of the 53 respondents, 25 respondents, or 47.2%,

stated White; 21 respondents, or 39.6%, stated Black or African American; 5 respondents, or 9.4%, stated Asian or Pacific Islander; and 2 respondents, or 3.8%, stated Native American or American Indian. One respondent did not answer.

The fourth demographic question asked respondents the number of people living in their household. The options given included: one, two, three, and four or more. Of the 52 respondents, 45 respondents, or 86.5%, stated one person lived in their household; 5 respondents, or 9.6%, stated two people lived in their household; one respondent, or 1.9%, said three people lived in their household; and one respondent, or 1.9%, said that four or more people lived in their household. Two respondents did not answer.

The fifth demographic question asked respondents the number of years they lived in their neighborhood. The options given included: less than one year, one to three years, four to seven years, eight to eleven years, and twelve or more years. Of the 54 respondents, 6 respondents, or 11.1%, stated less than one year; 14 respondents, or 25.9%, stated one to three years; 8 respondents, or 14.8%, stated four to seven years; 8 respondents, or 14.8%, stated eight to eleven years; 18 respondents, or 33.3%, stated twelve or more years.

The sixth demographic question asked respondents their highest level of education. The options given included: K-8th, some high school but no diploma, high school diploma, some college but no degree, trade/technical/vocational training, associate degree, bachelor's degree, master's degree, professional degree, and doctoral degree. Of the 54 respondents, three respondents, or 5.6%, stated K-8th grade; 6 respondents, or 11.1%, stated some high school but no diploma; 23 respondents, or 42.6%, stated high school diploma; 7 respondents, or 13.0%, stated some college but no degree; 6 respondents, or 11.1%, stated vocational training; 1 respondent, or 1.9%, stated Associate's degree; 6 respondents, or 11.1%, stated Bachelor's degree; 1 respondent, or 1.9%, stated Master's degree; 1 respondent, or 1.9%, stated Doctorate degree.

The seventh demographic question asked respondents their employment status. The options given included: employed, self-employed, looking for work, volunteer, student, military, retired, disabled, and other. Of the 54 respondents, 10 respondents, or 18.5%, stated employed; 10 respondents, or 18.5%, stated retired; 24 respondents, or 44.4%, stated disabled; and 2 respondents, or 3.7% stated retired and disabled. The following responses had one answer each:

student, not-employed, self-employed, volunteer, self-employed and volunteer, employed and looking for work and disabled, employed and disabled, and employed and student.

The presentation board asked respondents a total of five questions and two of the questions were not in the long survey. The first of these two questions asked respondents if they would like to see a new food shelf opened up in the community. Of the six respondents, all of them answered yes. The second of these two questions asked respondents if they would like to see a new affordable grocery store in the community. Of the six respondents, all of them answered yes. The following tables show Section 8 survey responses.

Section 8 Housing Survey Responses

1. How often do you buy food?	2. Where do you buy food?	3. How do you get there?
every day - 3 three times a week - 3 two times a week - 6 one to two times a week - 1 once a week - 24 twice a month - 9 once or twice a month - 2 once a month - 8 N/A - 4	Cub Foods - 44 Aldi - 14 Walmart - 14 Rainbow - 10 Target - 8 Hampden Park Co-op - 5 Asian - 3 Gas Station - 3 Costco - 2	public transit - 34 driving vehicle - 19 family/friend - 14 walking - 9 metro mobility - 6 PCA - 2 biking - 1 Schwan's Food Truck - 1 delivery - 1
Total – 56 responses	Food Shelf - 2 Sam’s Club - 2 Mississippi Market - 1 Lunds & Byerly's - 1 Trader Joe's - 1 Speedy Mart - 1 Kemps - 1 Roseville Mall - 1 Somalian Grocery Store - 1	Total - 87 responses
	Total - 114 responses	

4. Monthly amount spent on groceries?	5. Foods you would like to see provided?	
range from \$16 to \$500 per household total = \$7,980 for 49 responses Approximately \$162.86 per household per month total = \$7,670 for 57 people Approximately \$134.56 per person per month This is approximately \$31.05 per person per week This is approximately \$4.42 per person per day	vegetables - 25 fruit - 21 meat - 18 milk - 12 bread - 10 eggs - 6 canned items - 5 potatoes - 4 butter - 4 rice - 4 pasta - 3 TV dinners - 3 soup - 3 fish - 3 produce - 3 organic items - 2 chicken - 2 spaghetti - 2 sugar - 2 staple foods - 2 pop - 2 healthy foods - 2 dairy items - 2 vegetarian items - 2 boxed milk - 1	goat meat - 1 ground beef - 1 vegetable oil - 1 mac and cheese - 1 Asian foods - 1 lactose free products - 1 boiled dinners - 1 fish bowl - 1 yogurt - 1 ground turkey - 1 sausage - 1 ham - 1 juice - 1 cereal - 1 soy products - 1 low-fat options - 1 low-salt options - 1 boxed dinners - 1 salad - 1 ice cream - 1 pizza - 1 tomatoes - 1 cheese - 1 coconut milk - 1 coffee - 1
6. Can you afford the foods you want?	Total - 168 responses	
no - 19 yes - 19 somewhat - 10 mostly - 3 barely - 1 N/A - 2		
Total - 52 responses		
7. Used a local food shelf?		
yes - 33 no - 20 N/A - 1		
Total - 53 responses		

8. If yes, how did you get there?	9. If yes, what was your experience like?	10. Any barriers to buying groceries?
public transit - 16 family/friend driving vehicle - 9 driving vehicle - 8 walking - 6 metro mobility - 5 PCA - 2 N/A - 21	positive - 17 neutral - 5 negative - 4 N/A - 28	affordability of groceries - 23 weather - 18 health - 16 transit difficulty or cost - 16 not able to get a ride - 7 NA - 17
Total - 46 methods	Total - 26 responses	Total - 80 methods

Demographic Information

1. Gender	2. Age Range	3. Ethnicity	4. Number of people in household
Male - 27	under 18 - 1 response	White - 25	1 person - 45 responses
Female - 26	18-24 - 1 response	Black/African American - 21	2 people – five responses
N/A - 1	25-34 - 5 responses	Asian/Pacific Islander - 5	3 people - one response
Total 53 responses	35-44 - 4 responses	Native Am./American Indian - 2	4+ people - one response
	45-54 - 11 responses	N/A - 1	N/A – two responses
	55-64 - 20 responses	Total - 53 responses	Total - 52 responses
	65-74 - 7 responses		
	75+ - 4 responses		
	N/A - 1 response		
Total - 53 responses			

5. Years in neighborhood	6. Education	7. Employment Status
less than one - 6 responses	k-8th - 3	employed - 10
one to three - 14 responses	some high school, no diploma - 6	retired - 10
four to seven - 8 responses	high school diploma - 23	disabled - 24
eight to eleven - 8 responses	some college, no degree - 7	retired and disabled - 2
twelve plus - 18 responses	vocational training - 6	student - 1
Total - 54 responses	associate degree - 1	not-employed - 1
	bachelor's degree - 6	self employed - 1
	master's degree - 1	volunteer - 1
	doctoral degree - 1	self employed and volunteer - 1
	Total - 54 responses	employed, looking for work, disabled - 1
		employed, disabled - 1
	employed, student - 1	
		Total - 54 responses

District Council Survey:

The researcher surveyed the other 16 district councils in St. Paul. Seven of the sixteen community councils responded. Of the seven responses, the Executive Director responded five times and the Community Organizer responded twice. This survey found that most of the residents from the other communities do their food shopping in local grocery stores within their communities. For example, four of the seven respondents answered Cub Foods, a local grocery store, for where most of their residents do their food shopping. Respondents answered all other places once, except for Whole Foods which two respondents answered. The researcher also asked respondents if the racial or socioeconomic demographics in their neighborhoods had inspired any initiatives by their community councils. Four of the seven respondents talked about food initiatives that they had taken part in. Two respondents described steps they had taken to better include low-income residents of color. One respondent plainly stated “no.”

The next question focused on concerns the community councils had in relation to food access and programs that they implemented to address those concerns. Two respondents answered transportation as being a concern, and one of those respondents also noted ethnically appropriate foods as a concern. One respondent stated that the remodeling of an apartment building reduced access to food so they want to complete the construction in phases. Another respondent mentioned that some residents in their community would like a higher-end grocery store within their community, as well as a farmer’s market which they now have. One respondent said yes to concerns in their community. However, they had not implemented any programs to address those concerns other than having a community garden that they have had for a long time. Two respondents said that they did not notice any concerns in their community. Another question asked what resources existed in the communities to address food scarcity needs. Four respondents mentioned they had food shelves within their community, and one of them said that they also had a mobile market. One respondent said that they had a community garden. Two respondents did not answer. The final question asked if their community council saw any room for collaboration with the St. Anthony Park Community Council on a project like this one. Of the seven responses, five respondents answered yes, one respondent answered potentially, and one respondent answered no. The following table shows district council responses.

District Council Survey Responses	
Where Residents Shop:	Concerns with Food Scarcity:
Cub Foods - 4 Aldi - 1 Kamp's Food Market - 1 Hmongtown Marketplace Double Dragon Foods - 1 Convenience Stores - 1 Kowalski's Markets - 1 Costco - 1 Lunds and Byerlys - 1 Korte's Super Market - 1 Cooper's Foods - 1 Trader Joe's - 1 Whole Foods - 1 Target - 1 Sun Ray Shopping Center - 1 Rainbow - 1	Access to grocery stores - 3 Transportation - 1 Ethnic appropriate foods - 1 N/A - 3
	Programs Implemented:
	Improve access - 1 Partnered with others - 1 N/A - 3
	Existing Resources:
	Food shelves - 4 Community garden - 1 Twin Cities Mobile Market - 1 N/A - 3
	Collaborate with District 12:
	Yes - 5 Potentially - 1 No - 1
Inspired Initiatives:	
Food initiatives - 4 Other initiatives - 2 No response - 1	

*See Appendix D for a complete table of district council responses

Food Shelf Survey:

The researcher also surveyed other food shelves in the area. She contacted 22 food shelves. The information found for each food shelf included: name, address, phone number, days open, hours of operation, amount of food people can receive, foods that the food shelves provide, requirements necessary to qualify, documentation needed, area served, and who provides the food to the food shelf.

In summary, all respondents stated that their food shelves were open once a week, three days a week, four days a week, five days a week, once a month or twice a month. She found that the most common answer included five days a week, with 11 of the food shelves opened Monday through Friday. Most of the food shelves reported that the amount of food recipients can receive depends on household size, and recipients can pick up food once a month. However, the First Lutheran Church reported no limit on the amount of food recipients can receive or the visits allowed each month. The types of things provided include anything from fresh produce and staple foods, to toothpaste and tampons.

For the most part, to qualify to receive food from one of the food shelves, recipients must live in the service area, have an income within 200% of the federal poverty guidelines, and have a demonstrated need for service (household income proof). The documentation needed includes a picture ID for adults, original form of ID for children (social security card, school paper, or medical card), and proof of address such as current mail. The two largest providers to the food shelves include Second Harvest Heartland and The Food Group. However, some other places they receive donations from include: individuals, Whole Foods, Lunds & Byerly's Grocery Story, J & P Trading Inc., Target, Bix Produce Company, Cub Foods, United Way, Mississippi Market, fundraisers and local gardens. The following table shows the food shelf responses.

Food Shelf Responses	
Days Open:	Food and Items Provided:
one time a week - 1 three times a week - 3 four times a week - 5 five times a week - 11 twice a month - 2	fresh produce bread milk canned foods cultural foods
Food Limit:	meat
depends on household size - 14 no limit - 1 specific amount of meals - 1 specific amount of pounds - 5 Not specific - 1	cereal Asian rice noodles bakery goods butter, eggs
Documents Needed:	perishable items
picture or other ID - 17 current official mail - 17 ID for all other household members - 9 proof of income - 5 none - 1 N/A - 3	staple foods grains snack items vegetables pet food protein items
Areas Served	toothpaste
specific area - 16 all areas - 4 N/A - 2	peanut butter paper towels soup
Food Shelf Providers:	fruit
Second Harvest Heartland - 18 The Food Group - 12 donations - 7 Cub Foods - 2 Target - 2 fundraising events - 2 United Way - 1 Whole Foods - 1 food vendors - 1 local gardens - 1 Lunds & Byerly's - 1 J & P Trading - 1	laundry detergent toilet paper desert peanut butter feminine products toiletries baby items pasta rice non-perishable food items dishwashing soap flour beans

*See Appendix E for a complete table of food shelf responses.

*See Appendix F for food pantry locations.

Discussion:

A researcher used surveys to see if putting a new food shelf in District 12 would help eradicate the food desert that exists within the community.

Section 8 Housing Residents Survey:

Based off the results, the researcher found that a majority of section 8 housing residents buy food once a week. The second most common answer chosen by respondents was once every two weeks. This aligns with what the Food Marketing Institute says about Americans buying groceries approximately 1.5 times each week.⁵² A strong majority of the respondents stated that they shopped at Cub Foods. Some other common answers, having been answered eight or more times each, included: Aldi, Walmart, Rainbow, and Target. All of these shopping centers are over one mile away from St. Anthony Park which shows that residents have to travel to reach their grocery store.

Public transit is the most common transportation method that residents use to reach their grocery store. Driving their own vehicle was the second most popular answer, and family or friend driving them was the third most common answer. This shows that a majority of section 8 housing residents in St. Anthony Park rely on someone else to get to their grocery store.

Individual residents of St. Anthony Park spend about \$134.56 on groceries each month. According to Lower Your Spending, individual Americans average about \$301 each month on groceries.⁵³ This means that the average individual American spends \$166.44 more on groceries each month than a section 8 housing resident from St. Anthony Park. This shows that section 8 housing residents in St. Anthony Park are spending less than half of what the average American spends on groceries.

Residents of St. Anthony Park are most interested in increasing access to vegetables, fruit, meat, milk, bread, eggs, and canned items. Based off these top choices, it shows that residents are looking to increase access to healthier food. About half of the respondents said they can afford the foods that they want to eat and the other half said they could not. A majority of the respondents, about 62.3%, stated they had used a local food shelf, and the top three ways they get to their food shelf include public transportation, family/friend driving them, and driving their own vehicle. This shows that if a food shelf was put in locally, it would be used, especially

because a majority of respondents have already used a local food shelf. Plus, it would be closer for those that do not have their own vehicle or who can not drive themselves.

A majority of the respondents who had used a local food shelf stated that they had a positive experience, which shows they would probably be willing to try out another food shelf based off of their prior positive experiences. The top barrier that respondents had to buying groceries was the affordability of groceries. This shows that a food shelf would be beneficial for those respondents that had trouble paying for the groceries they need.

Based off the demographic questions answered, the respondents are about 50% female and 50% male. A majority, or 37.7%, of the respondents are between the ages of 55 and 65, and 11 respondents, or 20.8%, are between the ages of 45 and 54. A total of 46 of the 53 respondents, or 86.8%, are White or Black. The majority of respondents, or 86.5%, have one person in their household. This shows that most residents in St. Anthony Park live alone. A total of 18 respondents, or 33.3%, have lived in St. Anthony Park for 12 or more years, and 16 respondents, or 30.2%, have lived in St. Anthony Park between four to eleven years. This shows that a majority of St. Anthony residents have lived in the area for many years, and will probably continue to live in St. Anthony Park for years to come. A total of 23, or 42.6%, of the respondents stated the highest level of education they received is a high school diploma. Finally, 24 respondents, or 44.4%, stated solely disabled for their employment status. This shows that it may be hard for many residents to get themselves to their grocery store. Overall, after surveying Section 8 housing residents in St. Anthony Park, a food shelf would be beneficial to residents by increasing access and affordability of groceries for them. Therefore the researcher recommends that St. Anthony Park should be a food shelf in the area.

District Council Survey:

After surveying the surrounding community councils, the surveyor found that the Twin Cities has a problem with food equity and availability. Over half of the community councils that responded have worked or are working on various food initiatives within their communities. Of the seven respondents, four did state that they already had a food shelf in their community. Similarly, all but one of the seven respondents will collaborate with District 12 on a food project. Based off these findings, the researcher thinks that District 12 should meet with the other 16 community councils and discuss ways to improve accessibility to healthy food options in the

area. The councils could then collaborate on a new food equity program that would benefit residents of St. Paul.

Food Shelf Survey:

Food shelves in the area operate in similar ways. The main difference between them involves the amount of days they are open each week. A few of the food shelves provide products like dog food, laundry detergent, dishwashing soap, and feminine products. District 12 should also provide these products if it put in a food shelf. As far as ability to qualify for services and documentation needed, all the food shelves contain pretty standard guidelines. It would make sense for D12 to require recipients to provide a photo ID, current official mail, live in the service area, as well as demonstrate a need. Two important food shelf donors include Second Harvest Heartland and The Food Group. District 12 should connect with these two groups if it chose to put in a food shelf.

Conclusion:

Living in a food desert makes it hard for people to access healthy and affordable food. This is a problem because eating unhealthy food can lead to many health consequences. The study done shows that section 8 housing residents are negatively affected by living in a food desert. Based off the research, District 12 should collaborate with other district councils to help tackle food needs in St. Paul. The research conducted also found that low-income residents in the Twin Cities have more access to healthy foods because of the many local food pantries available to them. The researcher recommends that St. Anthony Park put in a local food shelf that will benefit a large portion of St. Anthony Park residents. The researcher also recommends that further research be done to try and put in a local grocery store, such as a Cub Foods or an Aldi's, that will benefit all of St. Anthony residents.

Appendix A

1. How often do you buy food?

2. Where do you buy food?

3. How do you get there?

- Walking
- Biking
- Driving Vehicle
- Family/Friend Driving Vehicle
- Public Transit
- Metro Mobility
- Other _____

4. How much, on average, do you spend on groceries each month for your household?

5. If there was a new grocery store or food shelf opened up locally, what foods would you like to see provided?

6. Do you feel that you are able to afford the foods that you want to eat?

7. Have you used a local food shelf? Why or why not?

8. If yes, what type of transportation did you use to get there?

- Walking
- Biking
- Driving Vehicle
- Family/Friend Driving Vehicle
- Public Transit
- Metro Mobility
- Other _____

9. If yes, what was your experience like?

10. Have you encountered any barriers to buying groceries?

- Weather
- Health
- Not able to get a ride
- Affordability of groceries
- Transportation difficulty or cost
- Other _____

11. What other needs or concerns do you see that affect you or other people living here?

Demographic Information

Please select your gender

- Male
- Female
- Other _____

Please select your age range

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 or older

Please select your ethnicity

- White
- Hispanic or Latino
- Black or African American
- Native American or American Indian
- Asian/Pacific Islander
- Other _____

Please select how many people are living in your household

- One
- Two
- Three
- Four or more

Please select the number of years you have been living in the neighborhood

- less than 1 year
- 1-3 years
- 4-7 years
- 8-11 years
- 12 or more years

Please select the highest level of education that you completed

- K – 8th
- Some high school, no diploma
- High school diploma
- Some college, no degree
- Trade/technical/vocational training
- Associate degree
- Bachelor's degree
- Master's degree
- Professional degree
- Doctorate degree

I am currently

- Employed
- Self-employed
- Looking for work
- Volunteer
- Student
- Military
- Retired
- Disabled
- Other _____

Appendix B

Name:

Job Title:

Email:

District Council:

Where do most of your residents do their food shopping?

Have the racial or socioeconomic demographics in your neighborhood inspired any initiative through your organization? If so, what kind of initiatives?

Have there been any concerns in your neighborhood related to access to food scarcity? If so, have you implemented any programs to address those concerns?

What resources exist in your community to address food scarcity needs?

Do you see any room for collaboration on a project like this between D12 and your District Council?

Appendix C

Name:

Address:

Phone Number:

Days Open:

Hours:

How much food can you get:

Food provided:

Requirements to qualify:

Documentation needed:

Areas served:

Where does your food come from:

Appendix D

District Council Responses to Survey Questions

(See Appendix B for Questions)

Residents' Shopping Places	Inspired Initiatives	Concerns with Food Scarcity and Programs Implemented	Resources that Exist to Address Food Scarcity Needs	Room for Collaboration with District 12
Cub Foods, Aldi, convenience markets	Conducted a food security assessment	Transportation and ethnically appropriate foods - partnered with other organizations	Church sponsored food shelf	Potentially
Cub Foods, Kamp's Market, Hmong Market, Double Dragon	Supported Karen Groceries	Residents with disabilities - looked into getting an Aldi's or grocery delivery	Keystone Community Services, Mobile Food Shelf	"If there is a plan to work together I'm in"
Kowalski's, Costco	N/A	N/A	Community garden - donates some of the food to local food shelf	"Yes. We are also willing to play our part in addressing the food equity issue..."
Lunds and Byerly's, Korte's, Coopers, Trader Joe's, Whole Foods	Supported an Ethiopian Market at Sibley Manor	Access to groceries - phase construction of remodeling to improve access	N/A	Wants to start a program that promotes fresh produce
Midway big box stores, Whole Foods	Applied for a grant that focused on engaging renters	No major concerns	N/A	"Not at this time"
Cub Foods, Target	Took initial steps to hold meet and greets in large apartment complexes	More grocery stores options nearby, especially a higher-end choice	N/A	"Yes, given that we share some borders"
Cub Foods, Sun Ray, Rainbow	Worked with Wilder Foundation to bring in the Twin Cities Mobile Market	Yes - no implemented programs	Wilder Food Shelf, Twin Cities Mobile Market	"Yes - we would be happy to collaborate"

Appendix E

Food Shelf Responses to Survey Questions					
(See Appendix C for Questions)					
Days Open	Food Limit	Food Provided	Documents Needed	Areas Served	Food Shelf Providers
Monday, Tuesday, Friday	Depends on household size	fresh produce, bread, refrigerator and dairy items, cultural foods	picture ID, proof of address, ID for all other household members	Zip code 55117	Second Harvest Heartland, The Food Group
Monday - Friday	Depends on household size	fresh produce, milk, canned foods	one form of ID that can *BE* expired, proof of address	Ramsey County	donations
Monday - Friday	Depends on household size	meats, fresh produce, canned goods, cereal, refrigerated goods	Photo ID, current official mail for all residents, original form of ID for children*	Ramsey County	Second Harvest Heartland, local gardens, distributors, grocery stores
Monday, Wednesday, Friday	depends on household size	fresh produce, Asian rice noodles, bakery goods, butter, meats, canned meat	picture ID, proof of address, ID for other household members	55117 and the Ramsey County side of 55118	The Food Group, Lunds & Byerlys Grocery Store, J & P Trading
Monday - Friday	depends on household size	fresh produce, canned items, milk, eggs, perishable items	proof of address*	American Indians in Washington, Ramsey and Hennepin Counties	Second Harvest Heartland, The Food Group, donations

2nd and 4th Tuesday of each month	depends on household size	staple foods, grains, canned items, snack items, vegetables	N/A*	anywhere in the metro	students, alumni, cash donations, fundraising events
Monday - Friday	20 pounds per person per month	pet food, staple food, fresh produce, bread	some form of ID, current mail,	all areas	Second Harvest Heartland, United way, Whole Foods
Monday, Wednesday, Thursday	depends on household size	fresh produce, cereal, snacks, protein items, chicken, milk, toothpaste	N/A	residents that live in Merrick Community Services Service area	Second Harvest Heartland, The Food Group, Cub Foods, Target
Thursday	no limit	fresh produce, protein products, vegetables	none	all areas	Second Harvest Heartland, Metro State's Nursing Department
Monday - Friday	10 - 15 pounds per month	peanut butter, milk, tomatoes, staple foods, cranberries	N/A	N/A	Second Harvest Heartland
Monday - Friday	depends on household size	perishable items, shelf stable food, milk, frozen meat	photo ID for head of household, current official mail for all residents, original ID for children*	resident of Ramsey County	Second Harvest Heartland
Monday - Friday	depends on household size	perishable items, shelf stable food, milk, frozen meat	photo ID, current official mail, original ID for children*	Resident of Ramsey County	Second Harvest Heartland

Monday - Friday	3 day supply once a month - a minimum of 15 pounds per person	paper towels, soup, fruit, vegetables, laundry detergent, toilet paper	Photo ID	Southwest MN	Second Harvest Heartland, The Food Group, donations
Monday - Friday	once a month, up to 15 times per year	dog food, vegetarian products, eggs	Photo ID, current official mail, ID for children	N/A	Second Harvest Heartland, The Food Group
Monday, Tuesday, Thursday, Friday	20 pounds per person per month, two people receive 30 pounds	fresh produce, healthy items, desert	Photo ID, current official mail, ID for all family members	Phillips Neighborhood in Minneapolis	Second Harvest Heartland, Target
Monday - Thursday	depends on household size	peanut butter, feminine products, toiletries, cereal	Photo ID, ID for all family members, two pieces of current mail	communities of Columbia Heights, Spring Lake Park, Hilltop, Fridley	Second Harvest Heartland, The Food Group
Monday - Thursday	depends on household size	baby items, toiletries, vegetables, fresh fruit, pasta, rice, meat, cereal	photo ID, current official mail,	South Minneapolis	annual fundraiser (MN FoodShare March Campaign)
Monday - Friday	depends on household size	non-perishable food items, meat, dishwashing soap	two forms of ID, current official mail	North St. Paul and Oakdale	Second Harvest Heartland, The Food Group, donations
Monday - Thursday	3 meals a day for at least 3 days per person per month	milk, eggs, butter, meat, fresh produce, canned items	photo ID, current official mail	55109 and 55119	Second Harvest Heartland, The Food Group, donations











Monday - Wednesday	depends on household size	greens, canned peaches, canned goods, noodle soup	photo ID, current official mail	Southeast Asians in Hennepin County who are low-income	Second Harvest Heartland, The Food Group, food vendors
Monday, Tuesday, Wednesday, Friday	one person receives 25 pounds, plus 20 more pounds per each person	milk, flour, eggs, canned items, produce, cereal, dried beans	photo ID, current official mail, ID for all family members	all Minneapolis residents in need	Second Harvest Heartland, The Food Group, Whole Foods, donations
Monday - Friday	depends on household size	fresh and frozen produce, rice, meat, pasta, milk, eggs, dry goods	photo ID, current official mail	residents living in or who attend White Bear Lake School District 624	Second Harvest Heartland, The Food Group, donations

* income must be less than 200% of the federal poverty level

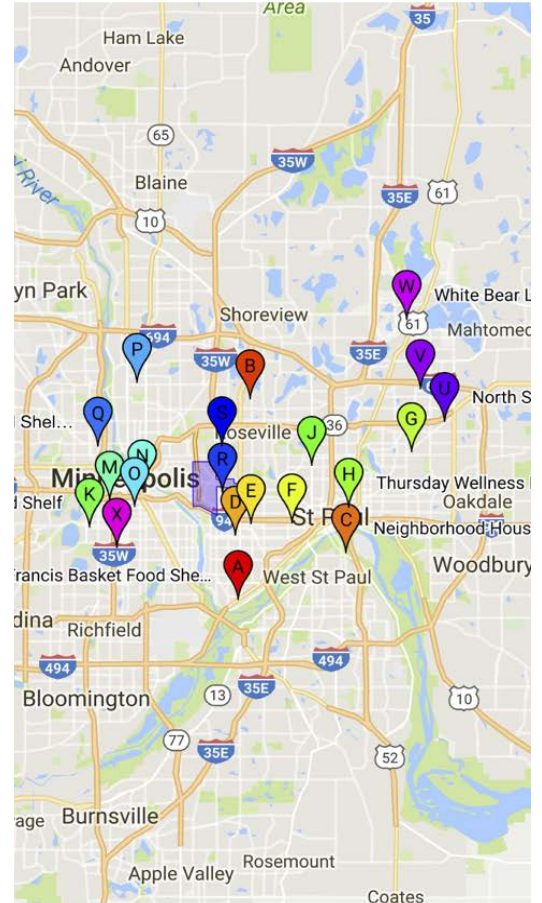
Appendix F

Food Pantries in the Twin Cities



-  Francis Basket Food Shelf
-  Keystone Community Services
Roseville Food Shelf
-  Neighborhood House Food
Shelf
-  Department of Indian Work
Food Shelf
-  Concordia University Food
Shelf
-  Hallie Q Brown Food Shelf
-  Merrick Food Shelf –
Woodland Hills
-  Thursday Wellness Food
Pantry – First Lutheran
Church
-  Keystone Community Services
– Midway Food Shelf
-  Keystone Community Services
– Rice Street Food Shelf

-  Joyce Uptown Food Shelf
-  CAPI Food Shelf
-  Groveland Emergency Food
Shelf
-  Brian Coyle Center Food Shelf
-  Waite House Food Shelf
-  Southern Anoka Community
Assistance (SACA)
-  Masjid An-Nur Food Shelf
-  Keystone Community Services
– Midway Food Shelf
-  Keystone Community Services
– Midway Food Shelf
-  St. Anthony Park
-  North St. Paul Area Food Shelf
-  Maplewood Food Shelf
-  White Bear Lake Emergency
Food Shelf
-  Sabathani Community Center
Food Shelf



References

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- ¹ Our History. Retrieved from <http://www.sapcc.org/our-history-2/>.
 - ² Ibid.
 - ³ Ibid.
 - ⁴ Ibid.
 - ⁵ Food Empowerment Project. 2016. <http://www.foodispower.org/food-deserts/>.
 - ⁶ Dutko, Paula, Michele V. Ploeg, Tracey Farrigan. (2012, August). Characteristics and Influential Factors of Food Deserts. Retrieved from <http://www.ers.usda.gov/media/883903/err140.pdf>. iii.
 - ⁷ Ibid.
 - ⁸ Walker E. Renee, Christopher R. Keane, Jessica G. Burke. (2010, April). Disparities and access to healthy food in the United States: A review of food deserts literature. Retrieved from [https://www.researchgate.net/profile/Jessica_Burke2/publication/44592398_Disparities_and_access_to_healthy_food_in_the_United_States_A_review_of_food_deserts_literature_Health_Platace_16\(5\)_876-884/links/55dcc9fa08ae591b309ab8da.pdf](https://www.researchgate.net/profile/Jessica_Burke2/publication/44592398_Disparities_and_access_to_healthy_food_in_the_United_States_A_review_of_food_deserts_literature_Health_Platace_16(5)_876-884/links/55dcc9fa08ae591b309ab8da.pdf). 876-877.
 - ⁹ Ibid.
 - ¹⁰ Ibid.
 - ¹¹ Ibid.
 - ¹² Walker E. Renee, Christopher R. Keane, Jessica G. Burke. (2010, April).
 - ¹³ Ibid.
 - ¹⁴ Weatherspoon, Dave, James Oehmke, Assa Dembélé, et al. (2012, February). Price and Expenditure Elasticities for Fresh Fruits in an Urban Food Desert. Retrieved from <http://usj.sagepub.com.ezp1.lib.umn.edu/content/50/1/88.full.pdf+html>. 89-90.
 - ¹⁵ Ibid.
 - ¹⁶ Ibid.
 - ¹⁷ Knuth, Senta. (2010, August). Irrigating Minnesota's Food Deserts. Retrieved from <http://www.mn2020.org/issues-that-matter/economic-development/irrigating-minnesota-s-food-deserts>.
 - ¹⁸ Pearson, Time, Jean Russell, Michael J. Campbell, Margo E. Barker. (2005, April) Do 'food deserts' influence fruit and vegetable consumption?-a cross-sectional study. Retrieved from https://www.researchgate.net/profile/Margo_Barker/publication/7815301_Do_Food_Deserts_Influence_Fruit_and_Vegetable_Consumption_A_CrossSectional_Study/links/09e4150fd898f64e76000000.pdf. 195-197.
 - ¹⁹ Weatherspoon, Dave, James Oehmke, Assa Dembélé, et al. (2012, February).
 - ²⁰ Knuth, Senta. (2010, August).
 - ²¹ Dutko, Paula, Michele V. Ploeg, Tracey Farrigan. (2012, August).
 - ²² Weatherspoon, Dave, James Oehmke, Assa Dembélé, et al. (2012, February).
 - ²³ Walker E. Renee, Christopher R. Keane, Jessica G. Burke. (2010, April).
 - ²⁴ Ibid.
 - ²⁵ Pearson, Time, Jean Russell, Michael J. Campbell, Margo E. Barker. (2005, April).
 - ²⁶ Ibid.
 - ²⁷ Fang, Rachel. Food Deserts and Food Insecurity: Even in Minnesota. Retrieved from <http://www.hampdenpark.coop/food-deserts-and-food-insecurity-even-minnesota>.
 - ²⁸ Corapi, Sarah. (2014, February). Why it takes more than a grocery store to eliminate a 'food desert'. Retrieved from <http://www.pbs.org/newshour/updates/takes-grocery-store-eliminate-food-desert/>.
 - ²⁹ Ibid.
 - ³⁰ Ibid.
 - ³¹ Ibid.
 - ³² Braunstein, S. N., J. B. Ewell, C. Santos, A. M. Palmer. (2011, September). Community Food Assessment in an Urban Food Desert. Retrieved from <http://www.sciencedirect.com.ezp3.lib.umn.edu/science/article/pii/S000282231101008X>. A82.
 - ³³ Ibid.
 - ³⁴ Ibid.
 - ³⁵ Walker E. Renee, Christopher R. Keane, Jessica G. Burke. (2010, April).
 - ³⁶ Braunstein, S. N., J. B. Ewell, C. Santos, A. M. Palmer. (2011, September).
 - ³⁷ Ibid.

-
- ³⁸ Bodor, JN, D. Rose, TA Farley, et al. (2007 July). Neighbourhood fruit and vegetable availability and consumption: the role of small food stores in an urban environment. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/17617930?dopt=Citation>.
- ³⁹ Ibid.
- ⁴⁰ Ibid.
- ⁴¹ Ibid.
- ⁴² Ibid.
- ⁴³ Knuth, Senta. (2010, August).
- ⁴⁴ Ibid.
- ⁴⁵ Ibid.
- ⁴⁶ Rao, Maya. (2014, February). Minneapolis cuts back program to bring fresh food to small city stores. Retrieved from <http://www.startribune.com/Minneapolis-cuts-back-on-its-fresh-food-effort/246718021/?c=y&page=all&prepage=2#continue>.
- ⁴⁷ Ibid.
- ⁴⁸ Ibid.
- ⁴⁹ Ibid.
- ⁵⁰ Ibid.
- ⁵¹ Ibid.
- ⁵² Lake, Rebecca. (2016). Grocery Shopping Statistics: 23 Fun Size Facts to Know. Retrieved from <https://www.creditdonkey.com/grocery-shopping-statistics.html>.
- ⁵³ Average amount spent on groceries for one person per month. (2015). Retrieved from <http://www.loweryourspending.com/average-amount-spent-on-groceries-for-one-person-per-month.html>.