Nutrition In the Community (NIC)

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Abstract

Background: Nutrition in the Community (NIC) is a pilot program that was developed to increase healthy eating and wellbeing among Latino residents living in Flint, Michigan. This program also sought to improve local relations between Latino residents and dietitians in the area as well as increase provision of culturally relevant nutrition programming by dietitians. **Purpose:** The purpose of this report is to evaluate this pilot program. Results of this report will help improve the program. **Methods:** The program was conducted at a local church for 10 weekly sessions. There were a total of 8 participants, 4 of which were Latino community members and 4 dietitians. Over the 10 weeks, dietitians were to improve the nutrition of a recipe given to them by a community member. Community members received nutrition education and kitchen safety workshops. Dietitians went through a short cultural competency workshop and immigration informational session. **Results:** For community members, the program seemed to improve their confidence in speaking English, perceptions of local relations with health professionals, and ways to improve their health. Results were inconclusive for the dietitians. **Conclusion:** Retention of nutritional information by community members will require reinforcement of educational material. To assess outcomes among dietitians and retention of participants, timely feedback and consistent data collection is needed.

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Dedication

I would like to dedicate this project to my father, Martin Devitt, for his overwhelming confidence in me that I could, and should, pursue my Master's degree. His everlasting love and support in my college endeavors is a large reason for why I have achieved so many academic goals. I also dedicate this to my mother, Edie Devitt, whose pride and support for me and my accomplishments helped me through my academic career. I could not have done it without her.

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Introduction

Non-communicable diseases continue to be a prevalent issue across the nation. Non-communicable diseases such as heart disease, stroke, and type 2 diabetes increasingly contribute to morbidity and mortality (Lenoir-Wijnkoop, Jones, Uauy, Segal, Milner, 2013). Evidence has shown if major risk factors of chronic diseases were to be eliminated, about 75% of these diseases would be prevented (Lenoir-Wijnkoop et al, 2013). Nutrition is a modifiable determinant of disease (Lenoir-Wijnkoop et al, 2013). Most primary care physicians agree nutrition plays an important role in chronic disease prevention and management. Cited in an Abbott Nutrition study, 94% of surveyed doctors stated they believe nutrition is a major part of chronic disease prevention and 95% stated nutrition can help with chronic disease management (U.S. Newswire, 2009).

Latinos are the largest minority group in the United States, making up 17.8% of the population (US Census Bureau, 2016). Latinos living in the United States have limited nutrition knowledge and poor nutrition (Boulanger, Perez-Escamilla, Himmelgreen, Segura-Millan, and Haldeman, 2002) as well as lack of access to healthcare and health-related resources such as exposure to culturally relevant health information (Frank, Beaudoin, Rascon, Garcia-Vega, and Rios-Ellis, 2013). To address these challenges, community-based interventions with culturally appropriate education have shown to be effective in reducing health disparities among all ethnic groups (Frank et al, 2013). It is also important to include food and nutrition education in all programming (Olson & Holben, 2002). Thus, the current pilot program was developed to improve the health and wellbeing of Flint's Latino population through nutrition education and increased access to health resources.

Nutrition in the Community (NIC) is a pilot program that aims to improve healthy eating and wellbeing among Latino residents living in Flint, Michigan. By partnering registered dietitians with Latino community members, a mutually beneficial, co-learning environment is created. The NIC pilot consisted of 4 hour weekly sessions for a 10 week period where registered dietitians and Latino community members each worked together to create more nutritious meals.

Program objectives specific to Latino community members include: (1) increasing basic nutrition knowledge; (2) increasing knowledge about food handling safety; (3) improving community relationships between Latino residents and local health professionals; and (4) improving public speaking skills. Program objectives specific to registered dietitians include: (1) increasing the provision of culturally competent nutrition counseling to Latino patients through efforts to improve self-awareness (i.e., increasing understanding about how personal bias impacts communication and counseling) and (2) increasing knowledge about barriers to healthy eating experienced by Latino residents living in Flint, Michigan.

Results from this pilot project will be used to inform future programming aimed at increasing culturally competent care among health professionals working with Latino patients and improving community relationships among Latinos who face significant health access barriers which contribute to the disproportionately higher rates of illness and disease they experience (Lapeyrouse, 2017).

METHODS

Subjects

Subjects of this pilot program consisted of 4 Latino community members of Flint, MI and 4 dietitians working in Genesee County, where the City of Flint is located. The study was approved by the University of Michigan-Flint's Institutional Review Board. All participants received a stipend for their participation, but participation was voluntary and subjects could end their participation at any time. The community members were recruited through planning member contacts representing Our Lady of Guadalupe Church and Latinos United for Flint (LUFF). A participant screener was administered to ensure eligibility requirements would be met for this study. The screening would stop if the community member did not live in Flint, did not identify as Hispanic/Latino, did not intend to improve their health within the next 30 days, was not the main food purchaser of their household, or was not the main meal preparer of the household. Of the 5 members who completed the screener, 4 were selected to participate in this pilot program.

The registered dietitians were recruited through the help of a planning committee member who was a registered dietitian. Coworkers of this committee member were recruited who expressed interest in the program.

Data Collection Procedures

Program objectives were evaluated using a mixed method approach. Quantitative data was collected in the form of pretest-post-test surveys and brief session evaluation forms. Qualitative data was collected in the form of 5 planned focus groups.

Pretest surveys were completed at the start of the program (session 1) and the post-test was completed at the end of the program (week 10). After each session, both dietitians and community members were given written evaluations that often had multiple choice, agree/disagree, and open ended questions. Each survey was tailored to evaluate knowledge gained for that particular session. All community member forms were provided in both English and Spanish to ensure participants could understand and complete them without difficulty.

Focus groups were conducted a total of 5 times throughout the program; 2 for the dietitians and 3 for the community members, though they are not analyzed here. The first focus group for both the dietitians and the community members was focused on their shopping trip experience to see what they noticed about food availability, quality of food, cost of food, and their comfortability at the shopping centers. During week 5, community members participated in a focus group to evaluate their quality of interaction with the dietitians and other program staff, comfortability, and satisfaction with the revised recipe. The last week both the dietitians and community members participated in focus groups evaluating their overall experience in the program, strengths, and improvements for the future.

Intervention

The pilot program was held at a local church. The church provided a safe and convenient space for the community members to meet. The pilot included 10 weekly sessions with different goals and focuses each week. Each session lasted 4 hours. The pretest was administered before the start of the first session. The community members and dietitians received different pretests which focused on the specific objectives for each group. After every session all participants completed an evaluation by either survey or focus group. Dietitians and

community members received different workshop forms tailored to the objectives of each group. The post-test was administered at the end of session 10 to all participants.

During the first week of the program, the dietitians went through a cultural competency training as well as an informational workshop on immigration. They were administered a pretest (T1) before the session to assess their knowledge on the subjects, then given another test immediately after the workshops (T2), and were finally given a post-test (T3) at the end of the 10 sessions.

Each community member was partnered with a dietitian, making 4 teams of 2. This pilot program required community member participants to submit a recipe they cook often for themselves or their families. Over the next 10 weeks, the dietitians were to revise the recipe to be healthier and more nutritious with the goal of making the meal taste as close to the original recipe as possible. This was done by tasting the original meal with the community members, sending their recommended revisions to a chef assisting in this pilot program, attempting to make the revised recipe two times, and finally presenting the recipe to the community members. During this time of revision, community members received nutrition education and were able to give suggestions to the dietitian they were paired with. The rest of the study consisted of the pairs preparing the revised recipe in two different demonstrations cooking for family, friends, and other community members.

Data Analysis

Quantitative data was analyzed using frequency statistics in SPSS. Due to the low number of participants, no other analysis was conducted. Frequency tables were created for

each session for both the dietitians and community members. Tables were also created to compare pretest and post-test answers when applicable for each group of participants.

RESULTS

Table 1
Characteristics of NIC Registered Dieticians (2017) N=4

	N	%
Where were you born?		
United States	4	100
Other	---	---
What is your sex?		
Female	4	100
Male	---	---
How old are you?		
21-25 years old	1	25
26-30 years old	---	---
31-35 years old	2	50
36-40 years old	---	---
41-45 years old	---	---
46-50 years old	---	---
51-55 years old	---	---
56-60 years old	1	25
Racial/Ethnic Background		
White/Caucasian	2	50
Black/African American	1	25
Hispanic/Latino	---	---
American Indian/Alaskan Native	---	---
Asian/South Asian	---	---
Native Hawaiian/Pacific Islander	---	---
Other: White/Hispanic	1	25
While growing up, which best describes the community in which you lived?		
Urban, predominately White	---	---
Urban, predominately Non-White	1	25
Urban, equally White and Non-White	---	---
Suburban, predominately White	---	---
Suburban, predominately Non-White	---	---
Suburban, equally White and Non-White	2	50
Rural, predominately White	1	25
Rural, predominately Non-White	---	---
Rural, equally White and Non-White	---	---

Do you currently live in the city of Flint?		
Yes	---	---
No	4	100
How long have you worked in Genesee County?		
Less than 1 year	1	25
1-2 years	2	50
3-5 years	1	25
How long have you worked as a Registered Dietician?		
Less than 1 year	---	---
1-2 years	2	50
3-5 years	1	25
6-10 years	---	---
11-15 years	---	---
16-20 years	---	---
21 or more years	1	25

Table 1 shows the demographic information of the registered dietitians (RD). All of the RD participants were born in the United States, are female, and do not live in the city of Flint. There was a wide range of ages with the RDs as 25% (n=1) were between 21-25 years old, 50% (n=2) were between 31-35 years old, and 25% (n=1) is between 56-60 years old. Fifty percent (n=3) of the respondents identified as White/Caucasian, 25% (n=1) identified as Black/African American, and 25% (n=1) identified as White/Hispanic. When asked about the community in which they lived while growing up, 25% (n=1) lived in an urban, predominately non-white community, 50% (n=2) lived in a suburban, equally White and non-White community, and 25% (n=1) lived in a rural, predominately White community. Twenty-five percent (n=1) have worked in Genesee county for less than a year, 50% (n=2) have worked in Genesee county between 1-2 years, and 25% (n=1) of participants have worked in Genesee County for 3-5 years. This shows that these dietitians are relatively new to serving the Genesee county community. Fifty percent of the respondents (n=2) have worked as a dietitian for 1-2 years, 25% (n=1) has worked as a dietitian for 3-5 years, and 25% (n=1) has worked as a dietitian for 21 or more years.

Table 2
Pretest vs Post-test Background Information of NIC Registered Dieticians (2017) N=4

	T1 (Pretest)		T2 (Post-Test)	
	N	%	N	%
Which best describes your current circle of friends?				
Predominately White	2	50	---	---
Predominately Non-White	---	---	1	50
Equally White and Non-White	2	50	1	50
Which best describes the client/patient population that you serve?				
Predominately White	---	---	---	---
Predominantly Non-White	4	100	2	100
Equally White and Non-White	---	---	---	---
How difficult is it interacting with persons with Limited English Proficiency because of language barriers?				
Very Difficult	---	---	---	---
Difficult	---	---	---	---
Somewhat Difficult	4	100	2	100
Not at all Difficult	---	---	---	---
Overall, how would you rate your cooking skills?				
Very Good	---	---	---	---
Good	4	100	2	100
Average	---	---	---	---
Novice	---	---	---	---
Extremely limited, poor				

Table 2 shows some background information at pre-test and post-test levels for the dietitians. The way they describe the population they serve, difficulty interacting with persons of limited English proficiency, and perceived cooking skills did not change (percentage wise) from pre-test to post-test. The way they describe their circle of friends did change. In pre-test, 50% (n=2) of the respondents stated they had a predominately White circle of friends and 50% (n=2) stated they have and equally White and Non-White circle of friends. In post-test 50% (n=1) responded they had a predominately non-white circle of friends and 50%(n=1) have an equally White and Non-White circle of friends. It should be noted that we were not able to obtain post-test information from two of the dietitians due to loss at follow-up.

Table 3
Healthy Eating Perceptions of NIC Registered Dietitians (2017) N=4

	T1 (Pretest)		T2 (Post-Test)	
	N	**%**	**N**	**%**
I believe a strong relationship exists between Latino residents of Flint and local medical professionals such as Registered Dieticians.				
Agree	---	---	---	---
Neither Agree or Disagree	3	75	1	25
Disagree	---	---	1	25
Health service professions, especially nutritionists, have failed to meet the needs of ethnic minority populations.				
Agree	3	75	2	50
Neither Agree or Disagree	---	---	---	---
Disagree	---	---	---	---
Healthy eating is possible for everyone.				
Agree	1	25	2	50
Neither Agree or Disagree	1	25	---	---
Disagree	1	25	---	---
The neighborhood and community in which one lives impacts one's ability to make healthy food choices.				
Agree	3	75	2	50
Neither Agree or Disagree	---	---	---	---
Disagree	---	---	---	---

Ultimately, living a healthy lifestyle comes down to personal choice.				
Agree	---	---	---	---
Neither Agree or Disagree	---	---	---	---
Disagree	3	75	2	50
I have a strong understanding of how my cultural background influences the way I think and act.				
Agree	3	75	2	50
Neither Agree or Disagree	---	---	---	---
Disagree	---	---	---	---
I have a strong understanding of the various barriers to healthy eating that exist in Flint.				
Agree	2	50	2	50
Neither Agree or Disagree	1	25	---	---
Disagree	---	---	---	---
I have a strong understanding of the food preferences of Latino clients/patients.				
Agree	1	25	1	25
Neither Agree or Disagree	1	25	1	25
Disagree	1	25	---	---
I have a strong understanding of the factors that influence food purchasing behaviors among Latino residents of Flint.				
Agree	1	25	2	50
Neither Agree or Disagree	1	25	---	---
Disagree	1	25	---	---
I have a strong understanding of Latino cooking (i.e., ingredients, food preparation, and cooking techniques)				
Agree	1	25	1	25
Neither Agree or Disagree	1	25	1	25
Disagree	1	25	---	---
I am confident in my abilities to provide culturally competent nutrition counseling to Latino clients/patients.				
Agree	1	25	1	25
Neither Agree or Disagree	1	25	1	25
Disagree	1	25	---	---
I have a good relationship with the local Latino community.				
Agree	1	25	1	25
Neither Agree or Disagree	1	25	1	25
Disagree	1	25	---	---

Table 3 reports the healthy eating perceptions of the registered dietitian (RD) participants. T1 shows the pretest response before the study was conducted and T2 shows the post-test answers once the study was complete. It should be noted there were two dietitians where no post-test data was collected due to loss at follow-up. There was also one dietitian who did not fill out the pretest due to late entry into the program, though demographic information was collected at post-test. Due to the lack of information for pretest and post-test from enough of the dietitians, analyzing the data for this table would not yield accurate results.

Table 4
Immigration Education of Registered Dieticians (N=4)

	T1 (Pretest)		T2 (Intervention)		T3 (Post-Test)	
	N	**%**	**N**	**%**	**N**	**%**
1. Marrying a U.S. Citizen gives you automatic U.S. citizenship.						
True	---	---	---	---	---	---
False	---	---	*3*	*75*	*1*	*25*
Not Sure	3	75	---	---	1	25
2. Having a child in the U.S. gives you automatic citizenship.						
True	---	---	---	---	---	---
False	*1*	*25*	*3*	*75*	*2*	*50*
Not Sure	2	50	---	---	---	---
3. There are limited options for obtaining citizenship for those who enter the U.S. unlawfully.						
True	*3*	*50*	*3*	*75*	*2*	*50*
False	---	---	---	---	---	---
Not Sure	---	---	---	---	---	---
4. Regardless of immigration status, Latinos commonly fear immigration officials.						
True	*2*	*50*	*3*	*75*	*2*	*50*
False	---	---	---	---	---	---
Not Sure	1	25	---	---	---	---

5. Regardless of immigration status, Latinos commonly fear deportation.						
True	*2*	*50*	*3*	*75*	*2*	*50*
False	---	---	---	---	---	---
Not Sure	1	25	---	---	---	---
6. The majority of Latinos in Flint are recent immigrants.						
True	---	---	---	---	---	---
False	---	---	*1*	*25*	*1*	*25*
Not Sure	3	75	2	50	1	25
7. The majority of Latinos in Flint are undocumented.						
True	---	---	1	25	---	---
False	---	---	---	---	*1*	*25*
Not Sure	3	50	2	50	1	25
8. The majority of Latinos in Flint only speak and read in Spanish.						
True	---	---	1	25	---	---
False	---	---	---	---	*2*	*50*
Not Sure	3	75	2	50	---	---

Table 4 reports the immigration questions answered by the dietitians. T1 represents the pretest answers, T2 represents the answers given immediately after they went through the immigration informational session, and T3 was their post-test answers, which was 9 weeks after T2. Correct answers are italicized within the table. It should be noted that due to a late addition, one dietitian was not able to attend the immigration session, so there is no data for T1 or T2 in this analysis. There also is no T3 data for two dietitians due to loss at follow-up. Question 1 (*Marrying a U.S. citizen gives you automatic U.S. citizenship)* and question 2 (*Having a child in the U.S. gives you automatic citizenship)* had the majority of respondents unsure of the answer during the pretest, but 75% (n=3) of the participants had the correct answers for both questions after the intervention in T2. T3 shows 25% (n=1) had the correct answer for questions 1. In question 2, 50% (n=2) of participants answered with the correct response in T3.

For question 3 (*There are limited options for obtaining citizenship for those who enter the U.S. unlawfully),* 75% (n=3) of the respondents knew the correct answer at T1 and T2, while 50% (n=2) had the correct answer at T3. Questions 4 (*Regardless of immigration status, Latinos commonly fear immigration officials)* had 50% (n=2) answer the questions correctly at T1, with 25% (n=1) unsure of the answer. At T2, 75% (n=3) responded with the correct answer and 50% (n=2) correct at T3. Question 5 (*Regardless of immigration status, Latinos commonly fear deportation)* had 50% (n=2) with the correct answer at T1 and 25% (n=1) unsure. At T2, 75% (n=3) had the correct answer and 50% (n=2) had the correct answer at T3. For questions 6 (*The majority of Latinos in Flint are recent immigrant)*, 75% (n=3) of the respondents were not sure of the correct answer at T1. At T2 and T3, 25% (n=1) had the correct response. Seventy five percent (n=3) of the respondents for question 7 (*The majority of Latinos in Flint are undocumented)* were unsure of the answer at T1. At T2, none of the respondents had the right answer. At T3 25% (n=1) had the correct answer. Question 8 (*The majority of Latinos in Flint only speak and read in Spanish)* had no respondents getting the answer right because they all answered unsure at T1. At T2, nobody had the correct answer and 50% (n=2) were still unsure of the answer. At T3, 50% (n=2) of the respondents selected the correct answer.

Table 5
Characteristics of NIC Community Members (2017) N=4

		N	%
Sex			
	Female	4	100
	Male	---	---
Age			
	35-40	2	50
	41-45	---	---
	46-50	1	25
	51-55	1	25

Ethnic/Cultural Background		
Mexican/Mexican American/Chicano	4	100
Other	---	---
Marital Status		
Married or living together	4	100
Never Married	---	---
Separated/Widowed/Divorced	---	---
Highest Completed Grade/Degree		
Less than high school	1	25
High school graduate	2	50
Bachelor's Degree	1	25
Approximate Household Income		
Between $10,000 and $20,000	2	50
Between $20,000 and $30,000	1	25
I was born in the United States		
Yes	---	---
No	4	100
When was the first time you entered the United States?		
When I was younger than 10 years old	---	---
Between 10 and 18 years old	2	50
Between 19 and 25 years old	---	---
Between 26 and 44 years old	2	50
When I was at least 45 years old	---	---
Number of adults living in the home		
1	---	---
2	1	25
3	3	75
Children (under 18 years old) living in the home		
0	---	---
1	---	---
2	2	50
3	1	25
4	---	---
5	1	25
Health Insurance		
Has health insurance	2	50
Does not have health insurance	2	50
Health Insurance Coverage Through		
Employer	1	25
Genesee County Health Plan	1	25
No Insurance	2	50

Health Problems		
Overweight/Obese	2	50
Anxiety	1	25
Diabetes	1	25
High Cholesterol	1	25
Other	1	25
Asthma	---	---
Cancer	---	---
Depression	---	---
Heart disease	---	---
High blood pressure	---	---

The demographic characteristics and health background for the community member participants are reported in Table 5. All of the participants (n=4) are Mexican/Mexican American females who are married or living with their significant other and were not born in the United States. Of this sample 50% (n=2) are between 35-40 years old, 25% (n=1) are between 46-50 years old, and 25% (n=1) are between 51-55 years old. Twenty-five percent (n=1) had completed less than a high school education, 50% (n=2) are high school graduates, and 25% (n=1) completed a Bachelor's degree. Of the participants that responded (n=3), 2 participants have an annual household income of $10,000-$20,000 and 1 participant has an annual household income of $20,000-$30,000. One participant (25%) did not provide an answer for their household income. Fifty percent of the respondents (n=2) first entered the United States between the ages of 10 and 18 years old and 50% (n=2) entered when they were between 26 and 44 years old. All the participants have more than one adult living in their home with 25% (n=1) having 2 adults in the home and 75% (n=3) having 3 adults living in the home. All the participants also had children (under 18 years old) living in their homes. Fifty percent (n=2) have 2 children living in their home, 25% (n=1) have 3 children living in their home, and 25% (n=1) have 5 children living in their home. 50% of the participants (n=2) have health

insurance while 50% do not have health insurance. Of the participants that do have health insurance, 1 receives health insurance coverage from their employer and 1 receives their health insurance from a county health plan. Of the responses to the health problems diagnosed by a doctor, 50% (n=2) of the responses were obesity, 25% (n=1) were anxiety, 25% (n=1) were diabetes, 25% (n=1) were high cholesterol, and 25% (n=1) listed a health problem not listed (low blood pressure).

Table 6
Language Proficiency NIC Community Members (2017) N=4

	N	%
In general, what language(s) do you speak?		
Spanish more than English	2	50
Spanish and English equally	2	50
English more than Spanish	---	---
Spanish only	---	---
English only	---	---
Other	---	---
In general, what language(s) do you read?		
Spanish more than English	1	25
Spanish and English equally	2	50
English more than Spanish	1	25
Spanish only	---	---
English only	---	---
Other	---	---
Which kind of television do you watch most often?		
Spanish language television from Mexico	---	---
Spanish language television from the United States	1	25
Both English and Spanish language television from the United States	2	50
English language television	---	---
I don't watch television	1	25
Which kind of radio do you listen to?		
Spanish language radio from Mexico	---	---
Spanish language radio from the United States	---	---
Both English and Spanish language radio from the United States	1	25
English language radio	3	75

Table 6 reports the language proficiency of the community member participants. Half of the participants (n=2) stated they speak Spanish more than English, while the other half (n=2) speaking Spanish and English equally. 50% of the respondents (n=2) read Spanish and English equally, 25% (n=1) read in English more than Spanish, and 25% (n=1) read in Spanish more than English. Half of the respondents (n=2) watch both English and Spanish language television from the United States, 25% (n=1) watches Spanish language television from the United States, and 25% (n=1) does not watch television. Seventy-five percent (n=3) listen to English language radio and 25% (n=1) listen to both English and Spanish language radio from the United States.

Table 7
Shopping and Eating Habits NIC Community Members (2017) N=4

	N	%
How often do you shop for groceries?		
Everyday	---	---
A few times a week	3	75
Once a week	1	25
A few times a month	---	---
Once a month or less	---	---
How do you usually get to the grocery store?		
I drive myself	4	100
Other	---	---
I can purchase the ingredients and food I like to eat in Flint.		
Agree	2	50
Neither Agree or Disagree	2	50
Disagree	---	---
The ingredients and foods I like to eat are always available in Flint.		
Agree	2	50
Neither Agree or Disagree	1	25
Disagree	1	25
The ingredients and foods I like to eat are always affordable in Flint.		
Agree	2	50
Neither Agree or Disagree	2	50
Disagree	---	---

The ingredients and foods I like to eat are always fresh in Flint.		
Agree	2	50
Neither Agree or Disagree	2	50
Disagree	---	---
When grocery shopping, I am treated like a valued customer.		
Agree	3	75
Neither Agree or Disagree	1	25
Disagree	---	---
If I cannot find what I need while grocery shopping, I will ask an employee for help.		
Agree	4	100
Neither Agree or Disagree	---	---
Disagree	---	---
I am satisfied with the grocery shopping options available to me in Flint.		
Agree	3	75
Neither Agree or Disagree	1	25
Disagree	---	---
I have reduced how much I cook at home because of the water.		
Agree	---	---
Neither Agree or Disagree	3	75
Disagree	1	25

Table 7 reports the shopping and eating habits of the community members in this pilot study. All respondents (n=4) drive themselves to the grocery store. Seventy-five percent (n=3) of the participants grocery shop a few times a week, while 25% (n=1) grocery shop once a week. Fifty percent (n=2) agree that they can purchase the ingredients and foods they like in Flint and 50% (n=2) chose to neither agree nor disagree with that statement. Fifty percent (n=2) stated the ingredients and foods they like to eat are always available in Flint, 25% (n=1) disagree with that statement, and 25% (n=1) chose to neither agree nor disagree that the foods they like are always in available in Flint. Fifty percent (n=2) of the community members agree that the foods they like to eat are always affordable in Flint and are always fresh in Flint, while the other 50% (n=2) neither agree nor disagree with both those sentiments. Seventy-five percent (n=3) feel treated like a valued customer while grocery shopping and 25% (n=1) neither

agree nor disagree. All of the respondents would ask an employee for help while grocery shopping. Seventy-five percent (n=3) are satisfied with the grocery shopping options available to them in Flint and 25% neither agree nor disagree. Twenty-five percent (n=1) of the respondents have not reduced how much they cook at home due to the water in Flint and 75% (n=3) neither agree nor disagree that the water has caused them to reduce how much they cook at home.

Table 8
Pretest vs Post-test of Community Members: Health (N=4)

	T1 (Pretest)		T2 (Post-Test	
	N	**%**	**N**	**%**
Would you say that in general your mental/emotional health is:				
Very Good	3	75	2	50
Good	1	25	2	50
Fair	---	---	---	---
Poor	---	---	---	---
Would you say that in general your physical health is:				
Very good	---	---	---	---
Good	4	100	3	75
Fair	---	---	1	25
Poor	---	---	---	---
What kinds of things do you do to improve your health?				
Diet/Restrict What I Eat	3	75	3	75
Exercise	1	25	3	75
Get Regular Check-Ups	1	25	1	25
Take herbs/supplements	1	25	1	25
Pray	---	---	2	50
Acupuncture	---	---	---	---
Massage	---	---	---	---
Limpia	---	---	2	50
Other	---	---	---	---
Nothing	---	---	---	---

Tables 8-11 show the comparisons of pretest and post-test answers of community members. Table 8 reports the personal health perceptions of Latino community members. T1

shows the pretest responses and T2 shows the post-test responses. T1 was completed at the beginning of week 1 and T2 was completed at the end of week 10. T1 shows 75% (n=3) responded as having very good mental/emotional health and 25% (n=1) having good mental/emotional health. At T3, the responses changed to 50% (n=2) responding with very good and 50% (n=2) responding with good mental/emotional health. At T1, 100% (n=4) of respondents stated their physical health as being good, and during the post-test, 75% (n=3) responded with good physical health and 25% (n=1) responded as having fair physical health. There was an increase in the amount of responses in T3 of things the participants do to improve their health. Exercise responses increased (from n=1, 25% to n=3, 75%), there were 2 additional responses (50%) that praying was a way they improve their health and Limpia, which is the Spanish word for spiritual cleansing (Natural Living Center, 2011).

Table 9
Pretest vs Post-test of Community Members: Local Relations (N=4)

	T1 (Pretest)		T2 (Post-Test	
	N	**%**	**N**	**%**
I believe a strong relationship exists between the Latino community and local health professionals such as Registered Dietitians.				
Strongly Agree	1	25	---	---
Agree	1	25	4	100
Disagree	1	25	---	---
Strongly Disagree	---	---	---	---
I believe that local health professionals care about my health.				
Strongly Agree	1	25	---	---
Agree	2	50	4	100
Disagree	1	25	---	---
Strongly Disagree	---	---	---	---
I have a good relationship with local health professionals				
Strongly Agree	1	25	---	---
Agree	1	25	4	100
Disagree	---	---	---	---
Strongly Disagree	1	25	---	---

Table 9 highlights the perception of local relations by community members. T1 represents the responses during the pretest (week 1) and T2 represents the responses during the post-test (week 10). T1 shows that answers for the statement "I believe a strong relationship exists between the Latino community and local health professionals such as Registered Dietitians" included 25% (n=1) responding with strongly agree, 25% (n=1) agree, and 25% (n=1) disagree. One participant (25%) did not answer this question. At T2, 100% (n=4) of the respondents agreed with the statement above. At T1, responses for the statement "I believe that local health professionals care about my health" included 25% (n=1) strongly agree, 50% (n=2) agree, and 25% (n=1) disagree. At T2 (T2), 100% (n=4) responded with agree. T1 also shows that the answers for "I have a good relationship with local health professionals" were 25% (n=1) strongly agree, 25% (n=1) agree, and 25% (n=1) strongly disagree. One participant (25%) did not answer this question during the pretest. T2 shows 100% (n=4) of the participants responded with agree.

Table 10
Pretest vs Post-test of Community Members: Language and Social Preferences (N=4)

	T1 (Pretest)		T2 (Post-Test	
	N	**%**	**N**	**%**
How confident are you in your abilities to speak English?				
Very Confident	---	---	---	---
Confident	1	25	2	50
Somewhat Confident	2	50	2	50
Not at all Confident	1	25	---	---
How confident are you in your abilities to speak to large groups of people (public speaking)?				
Very Confident	---	---	---	---
Confident	1	25	1	25
Somewhat Confident	2	50	3	75
Not at all Confident	1	25	---	---
Currently, my circle of friends are:				
More Hispanics than non-Hispanics	3	75	2	50
More non-Hispanics than Hispanics	1	25	---	---

About half and half	---	---	2	50
All Hispanics	---	---	---	---
All non-Hispanics	---	---	---	---
How comfortable are you working and socializing with others who are not Hispanic?				
Very comfortable	2	50	1	25
Comfortable	1	25	3	75
Somewhat Comfortable	1	25	---	---
Not Comfortable at all	---	---	---	---

Table 10 reports language and social preferences of the community members. T1 shows the pretest responses (week 1) and T2 shows the post-test responses (week 10). How confident the participants felt in their ability to speak English were 25% (n=1) confident, 50% (n=2) somewhat confident, and 25% (n=1) not at all confident at T1. At T2 the responses were 50% (n=2) confident and 50% (n=2) somewhat confident in their abilities to speak English. The participants confidence in their ability to speak in large groups of people, at T1, were 25% (n=1) confident, 50% (n=2) somewhat confident, and 25% (n=1) not at all confident. Their confidence in public speaking at T2 were 25% (n=1) confident and 75% (n=3) as somewhat confident. T1 shows that 75% (n=3) of participants responded they had more Hispanic than non-Hispanic friends and 25% (n=1) had more non-Hispanic than Hispanic friends. T2 shows the responses changed to 50% (n=2) answering they have more Hispanic than non-Hispanic friends and 50% (n=2) responding their circle of friends are about half and half between Hispanic and non-Hispanics. T1 shows how comfortable the participants are with working and socializing with others who are not Hispanic. Fifty percent (n=2) were very comfortable, 25% (n=1) were comfortable, and 25% (n=1) were somewhat comfortable. T2 shows the responses changed to 25% (n=1) were very comfortable and 75% (n=3) were comfortable.

Table 11 Pretest vs Post-test of Community Members: Shopping/Eating Habits (N=4)				
	T1 (Pretest)		T2 (Post-Test	
	N	**%**	**N**	**%**
I feel safe grocery shopping in Flint.				
Agree	2	50	3	75
Neither Agree or Disagree	---	---	1	25
Disagree	2	50	---	---
I enjoy preparing meals at home.				
Agree	4	100	3	75
Neither Agree or Disagree	---	---	1	25
Disagree	---	---	---	---
When preparing meals at home, do you cook a single meal for everyone or do you cook different meals for adults and children?				
Everyone eats the same meal	3	75	4	100
Separate meals are prepared for children and adults	1	25	---	---
I prepare a meal for myself and a different meal for others.	---	---	---	---
How confident are you that you can make healthy food purchases when grocery shopping?				
Very Confident	2	50	2	50
Confident	---	---	1	25
Somewhat Confident	2	50	1	25
Not at all Confident	---	---	---	---
How confident are you that you can prepare healthy meals for you and your family?				
Very Confident	1	25	2	50
Confident	2	50	1	25
Somewhat Confident	1	25	1	25
Not at all Confident	---	---	---	---

Table 11 reports the community member's shopping and eating habits. T1 represents the pretest (week 1) and T2 represents the post-test (week 10). Participants were to answer the statement "I feel safe grocery shopping in Flint" with either agree, neither agree or disagree, or disagree. T1 shows 50% (n=2) agreed and 50% (n=2) disagreed. T2 shows that at post-test 75% (n=3) agreed and 25% (n=1) neither agreed or disagreed. Participants were to answer the statement "I enjoy preparing meals at home" with agree, neither agree or disagree, or disagree.

One hundred percent (n=1) agreed with the statement at the pretest. At post-test, 75% (n=3) agreed and 25% (n=1) neither agreed or disagreed. T1 shows that 75% (n=3) of the participants stated that everyone eats the same meal when they prepare meals at home and 25% (n=1) prepare separate meals for children and adults. T2 shows 100% (n=4) responded that everyone eats the same meal when preparing meals at home. At the pretest, 50% (n=2) were very confident they could make healthy food purchases when grocery shopping and 50% were somewhat confident. T2 shows 50% were very confident, 25% (n=1) were confident, and 25% (n=1) were somewhat confident in making healthy food purchases when grocery shopping. T1 shows 25% of respondents were very confident that they can prepare healthy meals for themselves and their family, 50% (n=2) were confident, and 25% (n=1) were somewhat confident. T2 reports that 50% (n=2) were very confident in preparing healthy meals for themselves and their family, 25% (n=1) were confident, and 25% (n=1) were somewhat confident.

Table 12
Nutrition Education of Community Members (N=4)

	T1 (Pretest)		T2 (Intervention)		T3 (Post-test)	
	N	%	N	%	N	%
1. The serving size on the Nutrition Facts Label is:						
A. The recommended serving size for a food or beverage	---	---	---	---	---	---
B. The amount of food or beverage in a container.	1	25	2	50	1	25
C. A unit of measurement that helps compare products and identify the nutrients in a product.	*1*	*25*	---	---	*1*	*25*
D. All of the above	---	---	---	---	1	25
E. A and C	1	25	2	50	1	25

2. Serving size is determined by:						
A. The government, USDA	1	25	1	25	---	---
B. Manufacturers	---	---	*3*	*75*	*2*	*50*
C. Registered Dieticians	---	---	---	---	1	25
D. Doctors	1	25	---	---	---	---
E. A and D	1	25	---	---	1	25
3. The serving size on the Nutrition Facts Label is the amount of food or beverage that I should be eating at one time.						
True	2	50	---	---	1	25
False	*1*	*25*	*4*	*100*	*3*	*75*
4. I can easily compare the nutrients between two food products if they have different serving sizes.						
True	2	50	2	50	4	100
False	*1*	*25*	*2*	*50*	---	---
5. Sodium, sugar, and fat are nutrients that are listed on a the Nutrition Facts Label.						
True	*3*	*75*	*2*	*50*	*2*	*50*
False	---	---	2	50	2	50
6. The rate of diabetes is higher among Latinos than any other population in the United States						
True	*3*	*75*	*4*	*100*	*4*	*100*
False	---	---	---	---	---	---
7. I can reduce my risk for developing chronic diseases, such as diabetes, by:						
A. Eating fruits and vegetables	1	25	1	25	---	---
B. Eating whole grains and whole grain products	---	---	1	25	---	---
C. No eating carbohydrates (like breads and cereal)	1	25	---	---	---	---
D. All of the above	1	25	1	25	1	25
E. A and B	*1*	*25*	*1*	*25*	*3*	*75*
8. What someone eats does not have any impact on whether or not they will develop a chronic disease, such as diabetes.						
True	---	---	---	---	---	---
False	*3*	*75*	*4*	*100*	*4*	*100*
9. People with diabetes should not eat carbohydrates.						
True	3	75	3	75	4	100
False	---	---	*1*	*25*	---	---

10. Eating a variety of fruits and vegetables can:						
A. Improve bowel function	---	---	---	---	1	25
B. Reduce your risk for obesity and diabetes	---	---	---	---	---	---
C. Reduce your risk for heart disease and cholesterol	---	---	1	25	---	---
D. All of the above	*2*	*50*	*2*	*50*	*2*	*50*
E. B and C	1	25	1	25	1	25

Table 12 reports the nutrition knowledge of the community members. T1 represents answers during the pretest (week 1), T2 represents answers immediately after the nutrition informational session (week 4), and T3 represents answers during post-test (week 10). In T1, one participant (25%) did not answer all of the questions, so there is only data for 3 community members for a majority of T1. Question 1 (*The serving size on the Nutrition Facts Label is)* saw a decrease in correct responses from T1 (25% correct; n=1), to T2 (0% correct), but remained the same from T1 to T3 (25% correct; n=1). Question 2 (*Serving size is determined by)* saw an increase from T1 (0% correct) to T2 (75% correct, n=3), but there was a decrease at T3 (50% correct, n=2). Question 3 (*The serving size on the Nutrition Facts Label is the amount of food or beverage that I should be eating at one time)* saw an increase from T1 (25% correct, n=1) to T2 (100%, n=4), but there was a decrease at T3 (75% correct, n=3). Question 4 (*I can easily compare the nutrients between two food products if they have different serving sizes)* increased from T1 (25% correct, n=1) to T2 (50% correct, n=2), but there were no correct answers at T3. Question 5 (*Sodium, sugar, and fat are nutrients that are listed on a Nutrition Facts Label)* saw a decrease from T1 (75% correct, n=3) to T2 and T3 (50% correct, n=2). Question 6 (*The rate of diabetes is higher among Latinos than any other population in the United States)* saw and increase from 75% correct responses at T1 (n=3) to 100% (n=4) correct responses at T2 and T3.

Question 7 (*I can reduce my risk for developing chronic diseases, such as diabetes, by)* had 25% (n=1) correct responses at T1 and T2, but increase to 75% (n=3) correct responses at T3. Question 8 (*What someone eats does not have any impact on whether or not they will develop a chronic disease, such as diabetes)* had 75% (n=3) correct responses at T1 and 100% (n=4) correct responses at T2 and T3. Question 9 (*People with diabetes should not eat carbohydrates)* saw an increase in responses from T1 (0% correct) to T2 (25% correct, n=1), but decreased to 0% correct answers at T3. Question 10 (*Eating a variety of fruits and vegetables can)* remained at 50% (n=2) correct responses at all levels of questioning.

Table 13
Cooking Demonstration: Family & Friends Responses (n=11)

	N	%
The presenters were easy to understand.		
Agree	11	100
Neither Agree or Disagree	---	---
Disagree	---	---
The presenters appeared confident when discussing their recipes.		
Agree	11	100
Neither Agree or Disagree	---	---
Disagree	---	---
The presenters were able to answer questions well.		
Agree	11	100
Neither Agree or Disagree	---	---
Disagree	---	---
I enjoyed the recipes I tried today.		
Agree	11	100
Neither Agree or Disagree	---	---
Disagree	---	---
I would eat these foods again.		
Agree	11	100
Neither Agree or Disagree	---	---
Disagree	---	---

Table 13 reports the responses from family and friends of the participants during session 8. During session 8, the community members and dietitians performed a cooking demonstration of their revised recipes to family and friends. Those in attendance completed an evaluation about how well the presenter did. All of the respondents (n=11) agreed with every statement on the survey.

Table 14
Cooking Demonstration: Members of Community Responses (n=10)

	N	%
The presenters were easy to understand.		
Agree	8	80
Neither Agree or Disagree	2	20
Disagree	---	---
The presenters appeared confident when discussing their recipes.		
Agree	9	90
Neither Agree or Disagree	1	10
Disagree	---	---
The presenters were able to answer questions well.		
Agree	10	100
Neither Agree or Disagree	---	---
Disagree	---	---
I enjoyed the recipes I tried today.		
Agree	10	100
Neither Agree or Disagree	---	---
Disagree	---	---
I would eat these foods again.		
Agree	10	100
Neither Agree or Disagree	---	---
Disagree	---	---

Table 14 reports the responses from invited members of the community during session 9. During session 9, the community members and dietitians performed a cooking demonstration of their revised recipes to invited members of the community and local professionals. Those in attendance completed an evaluation about how well the presenter did.

Eighty percent (n=8) of the invited community members agreed the presenters were easy to understand and 20% (n=2) neither agreed or disagreed. Ninety percent (n=9) agreed the presenters appeared confident when discussing their recipes and 10% (n=1) neither agreed or disagreed. One hundred percent (n=10) of the invited community members agreed the presenters were able to answer questions well, enjoyed the recipes they tried, and would eat the food again.

DISCUSSION

Due to the loss at follow-up of two of the dietitians, it is hard to analyze the success of the program when it comes to the goals for the dietitians. This is a loss of 50% of the dietitian participants with no post-test data. There was also one dietitian who did not attend the immigration workshop, so there is only post-test data for this participant. Therefore, there is only one dietitian with pre-test and post-test data for the immigration session. Because of this, the immigration session cannot be analyzed for effectiveness at this time. The same can be said for the healthy eating perceptions the dietitians held before and after the study.

For the community members, there was an increase in ways they improve their health from pretest to posttest. It can be hypothesized this program encouraged community member participants to improve their health in other ways aside from the nutrition component. There would need to be additional sessions of this program to determine if there is an actual correlation with the program and influencing outside health habits of its participants.

The nutrition education session did not seem to accomplish the goals it set out to have. The majority of the questions decreased from intervention to post-test. The post-test occurred 6 weeks after the educational session the community members participated in. Some of the

questions also did not see improvement even when they were asked immediately after the session. This displays a need to reinforce educational content throughout the 10 weeks so the community members will be more likely to retain the information. More participants did attempt the questions after T1, which may suggest an increase in confidence of participants' nutritional knowledge.

When asked various questions about the local relationships between the community members and local health professionals at the pretest, the answers were varied from strongly agree to strongly disagree. At the post-test, however, they all agreed with these statements about whether a strong relationship exists with health professionals, if the local professionals care about their health, and if they had a good relationship with local health professionals. It seems as if working with the dietitians increased the perception of the relationships of local health professionals. Further replication of this study would need to continue to determine if this truly a correlation.

Community member's confidence in speaking English and public speaking increased for some. The community members had to speak English when working with the dietitians, the chef, and program committee. This may be attributed to the increase in confidence for speaking English. The participants also had to present their dish and talk about it to family, friends, and outside community members. These activities were intentionally developed to target confidence in public speaking and speaking English, which appears to be successful. Further studies would need to be done to determine the effectiveness of these activities.

At the pretest, half of the community member participants did not feel safe while shopping in Flint. At posttest, all of them either strongly agreed or agreed they feel safe

shopping in Flint. During this pilot intervention, there was a shopping trip everybody went on to purchase ingredients for the recipes. During this excursion, everybody wore matching program t-shirts to show they were part of a group. Qualitative data, not analyzed her, showed some community members expressed the t-shirts provided a sense of belonging, making them feel more comfortable in the community. More studies of this program would have to be done to see if this could be a correlate as to why there was such an increase in their feeling of safety.

The results of this pilot study support the idea that this program can increase the confidence of Latino community members in speaking, shopping, and working with non-Hispanic people. It also has supports the notion that working one-on-one with dietitians can increase the perception of local relations with health professionals. However, due to the small sample size, results cannot be generalized to all dietitians and/or Latino community members.

Limitations

There were a few limitations in this pilot program that could have affected the data. One dietitian was not able to attend the cultural competency training or the immigration workshop with the other dietitians in the program. Although this dietitian was able to attend the cultural competency training separately, this could cause different results as they did not hear the same questions and discussion the other dietitians did. They also were never able to receive immigration training. Another dietitian was unable to complete the program due to a non-program related injury.

The sample of participants for both dietitians and community members were all female, so it's effectiveness among men remains unknown. This also means that the pairs were sex concordant, which may have an effect on the outcome. In future studies it will be important to

explore whether sex concordant pairs versus non-concordant pairs impact study outcomes. It could be possible having community members paired with a dietitian of the same sex made them more comfortable in giving feedback and working together. This should be a unit of analysis in future research.

Suggestions for Future Research

Based on the results of this pilot program, there are some suggestions for changes to be made when moving forward with this program. Based on the results of the nutrition information questionnaire, this aspect of the program can be improved. The presentation of the nutrition session can be tailored to the questions being asked to ensure they are getting the intended information. The questions could also be changed to be more easily understood by participants. It is also important to reinforce this content throughout the program because presenting this information at one session is not sufficient. Improving the nutritional knowledge to community members is an important aspect of this program and updating this aspect of the intervention will be beneficial. There did appear to be an increase in confidence of knowledge in regards to nutritional education as more participants attempted to answer the questions during the intervention and post-test stages compared to the pretest.

Since there was only one dietitian with pre-test and post-test data of the immigration session, results are inconclusive on the effectiveness of this intervention piece. Future program implementation efforts should ensure participants are able to attend every intervention session and ensure they are completing their post-tests in a timely fashion.

The cooking demonstration provided at the beginning of the program was not what was expected by the planning team. The session focused more on cooking and food storage

temperatures. A better cooking demonstration would have been a presentation that taught participants about proper knife handling skills, using food measurements, and kitchen safety. Future programs should incorporate a presentation that focuses more on these technical cooking skills.

The cooking demonstrations presented by participants showed to be a benefit to the community members. Many participants showed increased confidence in speaking English as well as increased confidence in speaking in front of large groups of people. This activity was specifically designed to impact these behaviors and it appears to have achieved that goal.

Community members also reported a positive increase in their perception of local relations with health professionals. Replication of this intervention will help determine if working one-on-one with a local dietitian contributes to increases in the positive perception of relationships with health professionals. Future evaluations should consider distinguishing between relationships with local dietitians and other local health professionals.

Competencies Met

To complete the requirements for the University of Michigan-Flint Masters of Public Health (MPH) program, I had to complete an integrative learning experience (ILE) where I could apply my education to an actual project in the community. Although all the courses I have taken have helped me as a public health professional, courses such as Evaluation of Health Education and Promotion Programs, Community Assessment, Program Planning and Design, and Social Determinants of Health prepared me to contribute to the planning, implementation, and evaluation of this pilot program.

Through my work on this program I have utilized the following MPH competencies: **(a) perform effectively on interprofessional teams, (b) select quantitative and qualitative data collection methods appropriate for a given public health context, (c) select methods to evaluate public health programs,** and, through the health education track, (d) **apply data collection methods and strategies through ecological framework to assess community needs, assets, and capacity.**

Developing and Implementing the Nutrition in the Community Program

The Program Planning and Design course helped in identifying priorities and strategies when developing this program and in implementing those strategies once the planning piece was completed. During the development process, I **performed effectively on interprofessional teams** where I collaborated with several different community partners, dietitians, and healthcare workers on the planning committee. The Community Assessment course helped me prepare to work with community organizations and community members. In order to successfully develop a plan that was effective and appropriate for all parties involved, I was required to work with several different representatives who come from different backgrounds, experiences, and knowledge levels. I was able to comfortably communicate my opinion and program planning and evaluation knowledge while also actively listening to what others had to share. For example, I was able to explain the importance of going through an IRB process and the best types of evaluations to use for each particular session planned. Community partners with Latinos United of Flint expressed the need to have evaluation tools in both English and Spanish options for each of our community member so they could read from whichever form

they were most comfortable with. Through inter-professional collaboration we were able to create linguistically appropriate evaluation tools.

Creating Evaluation Tools

An integral part to my role in this pilot program was assisting with the creation of evaluation materials. The first step in creating these materials was to **select methods to evaluate the public health program**. I learned through the Evaluation of Health Education and Promotion Programs course the importance of ensuring you are selecting the appropriate method and instruments for what you are trying to achieve and assess. Because several of the pilot sessions were devoted to specific topics and presentations, my ILE mentor (Dr. Lapeyrouse) and I worked with session presenters to obtain or create, when needed, appropriate evaluation questions for each session given program goals and objectives. I was able to help **select quantitative and qualitative data collection methods appropriate for a given public health context** by reviewing existing instruments along with my mentor. Recommendations for evaluation questions and instruments were presented to the planning committee to discuss which method (quantitative or qualitative) was most appropriate for obtaining the type of feedback they needed to assess the effectiveness of each program session and the overall program. All instruments and questions were reviewed by the planning committee and translated once finalized.

For this program, it was determined that for some of the sessions it was appropriate to have the participants fill out short surveys that included both open and close ended questions. Streamlining data collection efforts in this way made the process easy to collect and analyze data. However, given the small sample size of the pilot program, qualitative data was also

collected to supplement the survey data. The collection of qualitative data would allow the program planning and evaluation team to gain in-depth insight about the strengths and limitations of this program. At total of 3 focus groups were conducted with community members and 2 were conducted with dietitians.

Data Collection and Evaluation

A screener survey was develop to assist with recruitment and selection of community members. Separate pre-tests/posttests, session evaluation surveys, and focus group questions were developed for dietitians and community members. For the community member surveys, one side had the questions in Spanish and the other had them in English. A paper survey was decided to be the best form of collecting data because it was easiest to access and administer to the participants compared to an electronic version. To prepare this report, I developed a database in SPSS, entered and analyzed all survey data. My ILE mentors assisted with the interpretation of findings and discussion of results.

The focus groups were conducted face-to-face, video recorded, and transcribed. Throughout my time in the MPH program I learned that we needed to get consent from the participants to be recorded. There was also opportunity for participants to write their responses to questions down if they did not wish to say them out loud during the focus group. Notes were also by focus group facilitators. Videos were used for transcription purposes. This data is not analyzed here.

When selecting data collection methods I also **applied data collection methods and strategies through ecological framework to assess community needs, assets, and capacity**. The ecological framework focuses on the individual, then relationship, then community, then

societal levels. At the individual level, we wanted to be sure everyone had access to the surveys. By making hard copies of the surveys and administering them at the sessions we could ensure each person was able to access and complete that session's evaluation. We did not want to assume everyone had access to computers or internet. Further, providing evaluation tools in both English and Spanish ensured that our efforts were fair and linguistically appropriate. For evaluation purposes, we made sure that the evaluation team was present at as many sessions to collect data. Having a consistent presence was a method used to help build trust and relationships with project participants. Building trust could make participants more comfortable with being honest and responding to questions, particularly during focus groups.

At the community level, we evaluated responses from invited community members who observed cooking presentations by the program participants. This helped participants interact with the community they live in, while disseminating nutrition information they learned. Evaluation information from these local community members is used to access whether or not the community perceived the program as helpful.

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