Spring 5-12-2023

Reducing Health Disparities for U.S. Hispanics by Increasing the Cultural Literacy of Nutrition Professionals

Norma Esther Guardado López

REDUCING HEALTH DISPARITIES FOR U.S. HISPANICS BY INCREASING THE CULTURAL LITERACY OF NUTRITION PROFESSIONALS

By

Norma Esther Guardado Lopez
B.A., Instituto Tecnológico y de Estudios Superiores de Monterrey
B.S., Universidad Cuauhtémoc

A Capstone Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment of the
Requirements for the Degree

MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA
30303

APPROVAL PAGE

REDUCING HEALTH DISPARITIES FOR U.S. HISPANICS BY INCREASING THE CULTURAL LITERACY OF NUTRITION PROFESSIONALS

By

Norma Esther Guardado Lopez

Approved:

Dr. Lucy Popova
Committee Chair

Dr. Iris Feinberg
Committee Member

MS Joy Goetz
Committee Member

April 7, 2023

Acknowledgments

I am deeply thankful to my dissertation committee for devoting their time, knowledge, and expertise to supporting and guiding my capstone project. Dr. Lucy Popova, Dr. Iris Feinberg, and MS Joy Goetz, I will always remember how much you encouraged and challenged me to become a better Public Health professional. I feel fortunate to be inspired by such admiring and wise women like you. You have tremendously impacted my life.

Mom and Dad, thank you for teaching me to fly and extending my "wings" every moment of my life. Thank you for all the love and resources you invested in me to become a happy, educated, and independent woman.

To my siblings, Jaime, Andrea, and Marilety. You are my inspiration and the impulse that keeps me going! Thank you for growing with me.

To the Hispanic community: I am inspired by your courage to leave everything behind to pursue a better life. This capstone is a love letter for all of you!

Finally, I want to dedicate this capstone project to my husband, Thomas.
Thank you for standing alongside me during this journey. Your everyday support got me until this moment. I feel blessed and proud to be your spouse. I love you.

Author's Statement Page

In presenting this capstone as a partial fulfillment of the requirements for an advanced degree from Georgia State University, I agree that the Library of the University shall make it available for inspection and circulation in accordance with its regulations governing materials of this type. I agree that permission to quote from, copy from, or publish this capstone may be granted by the author or, in his/her absence, by the professor under whose direction it was written, or his/her absence, by the Associate Dean, School of Public Health. in Such quoting, copying, or publishing must be solely for scholarly purposes and will not involve potential financial gain. It is understood that any copying from or publication of this caps tone that involves potential financial gain will not be allowed without written permission of the author.

Norma Esther Guardado Lopez, MPH, B.A., B.S.

Table of Contents

CHAPTER I: BACKGROUND AND INTRODUCTION

1.1 Background

Hispanic people may be of any race, including anyone of Central or South American, Cuban, Mexican, Puerto Rican, or other Spanish nation or origin (Aragones et al., 2014). In 1960, Hispanics represented just 3.24% of the U.S. population; however, the Hispanic population grew by 23% from 2010 to 2020, while those not of Hispanic or Latino origin grew by only 4.3%. By 2020, the Hispanic population had grown to 18.2%, contributing to half of the total population growth within the U.S. and becoming the largest ethnic minority group (Funk & Lopez, 2022). The Hispanic community is estimated to represent 25% of the U.S. population by 2050 (Pérez-Escamilla & Prutnik, 2007). In Georgia, Hispanics are the third-largest racial and ethnic group, representing 10.2% of the population (U.S. Census Bureau, 2021). The Hispanic community numbers 1.1 million in Georgia. More than half of Hispanics in Georgia are Mexicans (52%); Puerto Ricans (10%), Guatemalans (6%), Salvadorans (5%), and Colombians (3.5%) make up the top five Hispanic ancestry groups in Georgia (U.S. Census Bureau, 2021).

The Hispanic community is disproportionately affected by poor conditions of daily life, shaped by structural and social position factors (such as income, education, occupation, and social support systems, including health services), known as Social Determinants of Health (SDOH) (Velasco-Mondragon et al., 2016). Among the SDOH contributing to disparate health

outcomes for Hispanic Americans are language barriers, cultural barriers, and poverty, especially among recent Hispanic immigrants. Specifically, SDOH, like income and education, contribute to a disparity gap in the Hispanic community; however, diabetes type 2 has become the most significant health disparity for the U.S. Hispanic population (Cartwright, 2021). Any adult in the U.S. has a 40% average chance of developing diabetes; however, for Hispanics, the chance is more than 50% (Centers for Disease Control, 2022). Hispanic communities have a higher burden of diet-related chronic disease than non-Hispanic white Americans, underscoring the need for culturally inclusive initiatives that address poor dietary behaviors U.S. Hispanics have a higher burden of Hispanic populations. There is a need for culturally inclusive actions that address the higher burden of diet-related chronic disease and poor dietary behaviors of Hispanics compared to non-Hispanic white Americans (Fuster et al., 2022).

1.2 Capstone Project Statement

This capstone project aims to increase the cultural literacy of nutrition professionals in Georgia by developing culturally and linguistically responsive nutrition resources. It is designed to facilitate food pantries and food banks to support Hispanic people's voluntary adoption of healthier and traditional foods. The resources in this capstone will support food pantry staff and other agencies serving food insecure Hispanics in Georgia to learn about their traditional and cultural foods, so they can provide culturally appropriate food and nutrition to create a more inclusive service. The cultural food lists in this capstone have been developed following evidence-based interventions toward lessening language barriers among racial or ethnic minority populations to improve health outcomes (Chin et al., 2007). The information provided in this capstone can be used by any clinician or social services professional, including staff and volunteers at food banks and food pantries, to serve Hispanics better.

CHAPTER II: REVIEW OF THE LITERATURE

This chapter provides a review of the literature focusing on several factors that contribute to health disparities in the Hispanic population in the U.S. and Georgia.

2.1 Chronic Disease

There are several risk behaviors for chronic disease; the most common are tobacco use, poor nutrition (defined as a diet low in fruit and vegetables and high in saturated fats and sodium), exposure to second-hand smoke, physical inactivity, and excessive alcohol consumption (Centers for Disease and Prevention, 2022). Risk factors for chronic disease and decreased healthcare access make the Hispanic community disproportionately vulnerable to disease and death. Not only do Hispanics struggle disproportionately with diabetes, but it has also become the fifth cause of death for this population (Titus & Kataora-Tahiro, 2018). In addition, Hispanics endure significant health risks such as obesity, tobacco smoking, and alcohol intake (Velasco-Mondragon et al., 2016).

The Hispanic population is twice as likely to die due to liver disease or diabetes than whites (Centers for Disease Control, 2015), according to the Office of Minority Health (OMH) (n.d.) Hispanics were at double risk of being hospitalized for treatment of end-stage renal disease due to diabetes compared to Non-Hispanic Whites, and in 2017 Hispanics were more likely to die from diabetes than non-Hispanic whites by 1.3 times. Hispanics showed higher death rates

from diabetes (51% higher) and higher prevalence of diabetes (133%), and obesity (23%) compared with whites (Dominguez et al., 2015).

Millions of people in the U.S. experience a high burden of metabolic irregularities, known mainly as metabolic syndrome; metabolic syndrome is a series of pro-inflammatory conditions such as insulin resistance, adiposity, hyperglycemia, and elevated blood pressure (Heiss et al., 2011). The highest prevalence of metabolic syndrome in the U.S. is observed among Mexican Americans, with 36.3% from 2011-2016 (Hirode & Wong, 2020). In a systematic review, a set of self-management support interventions (defined interventions that support people with ongoing health conditions to learn how to live to their full potential (Centers for Disease Control, 2021)) showed improvements in patient-level outcomes, such as risk behavior, physiological measures of disease, patient satisfaction, and knowledge in more than half the studies analyzed. However, one of the biggest challenges for Hispanic chronic disease sufferers is consistent, culturally competent disease self-management; hence, linguistically, and culturally competent peer support programs are essential in managing chronic diseases in the Hispanic population (Reynolds et al., 2018).

2.2 Health Disparities

Geography impacts health: the place where people live, get educated, and develop professionally directly influences their health interactions, like the food they consume and access to healthcare services (Dummer, 2008).

The counties registering the biggest percentage of people speaking Spanish at home in Georgia are Gwinnett 103,350 (17.2%), Cobb 49,980 (9.6%), Fulton 39,034 (5.4%), Dekalb

32,558 (6.2%), and Hall 28,558 (21.52%) (U.S. CENSUS, 2021). Table 1 shows varying SDOH for these five counties.

Table 1

Top five Health Ranking Georgia's Counties with Most People Speaking Spanish at Home (% shows percent of total population)

	Gwinnett, GA	Cobb, GA	Fulton, GA	DeKalb, GA	Hall, GA
HEALTH OUTCOMES					
Poor or fair health	19%	16%	17%	19%	22%
HEALTH FACTORS					
Food Insecurity	8%	9%	11%	11%	11%
Limited Access to healthy Foods	10%	8%	9%	9%	7%
Physical Inactivity	29%	25%	24%	27%	32%
Uninsured	18%	14%	13%	17%	22%
Less than a High School Degree	26%	20%	11%	25%	49%

According to the (County Health Rankings, 2023) overall poor health in these counties ranges from 16% to 22%. Health factors like food insecurity, limited access to healthy foods, physical inactivity, not having access to health insurance, and having less than a high school degree can be correlated with health outcomes. The proximity in the environment to find food in pantries, grocery stores, and supermarkets impacts the availability of healthy food; a study shows that access to fresh fruits and vegetables is challenged by unequal distribution of resources (Varela et al., 2023). Food insecurity has been associated with a lower diet quality, which may be affected by a lack of healthy food access (Potochnick et al., 2019). Because of significant cultural barriers and the poverty in which Hispanics live, it is speculated that this group does not have adequate access to facilities conducive to recreational leisure time or physical activity (e.g., gyms and safe green areas) therefore, they may be at risk of being relatively sedentary, particularly concerning leisure time (Pérez-Escamilla & Prutnik, 2007). About 13%-22% of the population in these counties is uninsured, meaning they reported not having any private health

insurance like Medicaid, Medicare, state-sponsored or another government-sponsored health plan, or military plan (U.S. Census Bureau, 2021). This adds to the health disparities the Hispanic and Latino community encounters in the U.S. which also include poor health literacy, provider biases, and poor provider-patient communication (Hall et al., 2015). Educational attainment in these counties varies from 11% to 49% of people having less than a high school degree. Education is a SDOH because people who have higher education also have higher employment rates, and therefore, more healthcare benefits such as paid leave and retirement tend to have more education (Shankar et al., 2013).

2.3 Food Insecurity

Data show that food insecurity has disparately impacted U.S. Hispanic households, and Hispanic communities are more likely to experience food insecurity than non-Hispanic whites (19.2% to 10%) (Varela et al., 2023). Food insecurity is defined as "the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways" (Anderson, 1990, p. 1576). One out of six Hispanics in the U.S. is at risk of experiencing hunger (Coleman-Jensen et al., 2019). The USDA's Supplemental Nutrition Assistance Program (SNAP) was first enacted in 1939 as The Food Stamp Act; then, it was modified to become SNAP (U.S. Department of Agriculture, 2018). SNAP is a food and nutrition assistance program aiming to boost food security by providing low-income households with nutrition education and monthly financial support to access groceries to acquire a healthy diet (Coleman-Jensen et al., 2022). According to the (U.S. Census Bureau, 2021) survey on Food Stamps/SNAP Program, 6.5% (33,089) of Hispanic

households received SNAP assistance in Georgia; in the national data, 23.1% of Hispanic households are supported by SNAP.

Among the socio-demographic factors increasing food insecurity rates among Hispanic households with children is lack of English proficiency, caregiver's lower education (less than a high school degree), and young age of children; a lack of basic nutrition knowledge and food resource management among food insecure Hispanic families with children create challenges for choosing, storing, and cooking healthy meals (Varela et al., 2023). Several studies show evidence that cultural beliefs play a role in health because, during acculturation, people tend to recognize non-cultural foods as poor in nutritional value compared to traditional foods (Varela et al., 2023).

Food insecurity has been associated with obesity among low-income Mexican American women (Velasco-Mondragon et al., 2016), and food-insecure Hispanic children and youth who showed higher BMIs; they were most likely to be overweight (Potochnick et al., 2019). Poor nutrition and food insecurity are linked in that people facing food insecurity are 25% more likely to develop diabetes and 200% more likely to develop obesity; poorer health outcomes and higher rates of chronic disease are associated with food insecurity (Adams et al., 2003).

2.4 Language Barriers

Limited English proficiency (LEP) is defined as limited fluency in the language by having a limited capacity to read, speak, understand, or write the language (Squires & Youdelman, 2019).

Language barriers are a significant factor in accessing care (Al Shamsi et al., 2020). Native Spanish speakers are more likely to experience the need for a regular source of care, get fewer prescription medications, and have fewer consultations than those who speak English fluently (Foiles Sifuentes et al., 2020). Although 13% of the population speaks Spanish at home (U.S. Census Bureau, 2020), the U.S. healthcare system is primarily designed to serve English speakers. There are 5.2 million limited English-speaking households (4.3%) in the U.S., which means that 25.3 million people (8.2%) speak English less than "very well," according to the U.S. Census Bureau (2020). Title VI of the Civil Rights Act of 1964 prohibits discrimination against people of any race, color, or national origin. Title VI is violated when people with LEP cannot access language-adapted services, including healthcare. The Department of Justice Regulation and Office for Civil Rights has required healthcare providers to offer federally funded translation and interpretation services at no cost for LEP populations (Timmins, 2002).

> "The language barriers experienced by these LEP persons can limit their access to critical public health, hospital, and other medical and social services to which they are legally entitled and can limit their ability to receive notice of or understand what services are available to them. Because of these language barriers, LEP persons are often excluded from programs or experience delays or denials of services from recipients of federal assistance. Exclusions, delays, or denials may constitute discrimination based on national origin, violating Title VI" (Timmins, 2002, p. 82).

The demand for language services is growing among the U.S. LEP population; these services may include oral communication interpretation and written translation of materials

(Squires & Youdelman, 2019). The Affordable Care Act (ACA) Section 1311 about Plain Language Requirement states that patient communication must be given in “plain language,” understood as creating and delivering concise, well-organized messages and following best practices in plain language so that LEP individuals can understand (Strokoff & Grossman, 2010). In 2016, new regulations to strengthen anti-discrimination were added to the ACA; one was the provision of qualified medical interpreters and translators free of charge to the patient as well as providing statements that indicate the availability of language assistance services in non-English languages on all significant documents (Squires & Youdelman, 2019).

Studies also show that the most significant barrier for Hispanics accessing care was a lack of bilingual health providers, and the second greatest was a lack of educational materials in Spanish (Timmins, 2002). Research consistently demonstrates improved health outcomes when language access services are implemented well (Squires & Youdelman, 2019). For example, in a study by Lopez-Quintero et al. (2010), English-proficient Hispanics were about 50% more likely to report receiving advice on physical activity than LEP Hispanic patients and had a higher number of visits to a physician during the prior year.

The Department of Health and Human Services (HHS) recognizes that language barriers between patients and healthcare providers contribute to health disparities (Office of the Assistant Secretary for Health, 2022). A systematic review identified a lack of Spanish-speaking providers, a lack of specialty providers, a lack of information to treat diabetes (nutrition and exercise), and not having a physician were the main barriers to access healthcare among Hispanics Titus (Titus & Kataora-Tahiro, 2018). Spanish-speaking Hispanic patients are less likely to mention

symptoms, expectations, and concerns to their physicians and are more likely to have their comments ignored, to report not getting a regular source of care or being limited to follow-up, and to have trouble getting information or asking for advice by phone than are English-speaking patients (Rivadeneyra et al., 2000). Providers serving the Hispanic community have suggested that patients with LEP had trouble understanding diabetes informational brochures and considered the language "way over their head" (Titus & Kataora-Tahiro, 2018, p. 125).

2.6 Health Literacy

Health literacy is "the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions" (Soto Mas et al., 2015, p. 1). Healthy People 2030, the national government prevention agenda for health improvement in the U.S., included health literacy as a national priority for improving overall health (Santana et al., 2021). In the U.S., Spanish-speaking immigrants are particularly affected by adverse health outcomes associated with low health literacy (Jacobson et al., 2016), such as obesity, which tends to increase the risk of developing hypertension, stroke, diabetes, cancer, and heart disease (Guntzviller et al., 2017). Hispanics with LEP have persistently low health literacy (Soto Mas et al., 2015).

According to social cognitive theory (SCT), self-efficacy and capability, both of which are individual health literacy skills, can influence preventive health-related behaviors (Guntzviller et al., 2017). The interaction between self-efficacy and health literacy of Spanish speakers was an essential predictor in the consumption of fruit and vegetables and weekly

physical activity and boosted the avoidance of high-fat foods (Guntzviller et al., 2017). Behavioral confidence and literacy capability are needed to implement beneficial health behaviors among low-income Spanish-speaking adults (Guntzviller et al., 2017). The effects of lower individual health literacy can be shown as avoiding health situations and health information, engaging in less preventive behaviors, and reporting more barriers to healthcare (Guntzviller et al., 2017). Some studies mention nutrition literacy as a domain of health literacy, which refers to accessing, understanding, and implementing nutrition information; Velardo (2015) states that nutrition literacy can improve the comprehension of the benefits of a healthy diet, health risks, and components of good nutrition. Promoting healthy diets while validating and understanding cultural foods and respecting traditions is necessary to develop a more effective nutrition counseling (Fuster et al., 2022). Creating plain language and culturally responsive health education materials exemplifies the attempts to lessen limited health literacy (Wynia & Osborn, 2010). Increasing health behavior change by improving caregivers' and their patients' intercultural communication and developing culturally competent services, specifically to LEP patients, is necessary to increase the provision of nutrition counseling among chronically ill Hispanic patients, to reduce the health disparities and provide their health care quality and care (Lopez-Quintero et al., 2010). Implementing cultural sensitivity and health literacy is necessary to increase Hispanics' access to health services, mainly to prevent chronic illnesses and promote healthy lifestyles and obesity prevention (Velasco-Mondragon et al., 2016).

2.7 Diet acculturation

Acculturation is the process of adopting or learning specific features of a new culture and simultaneously keeping aspects of the original culture (Ayala et al., 2008). Hispanic immigrants adapt features of their cultural lifestyle, relationships with healthcare and treatment, assumptions about nutrition, and physical activity to American culture (Wallace et al., 2010). According to Ayala et al. (2008), the healthfulness of the Hispanic diet is reduced over the acculturation process. Among Hispanics, acculturation has been associated with a higher risk for obesity, lower rates of breastfeeding, lower intake of fruits and vegetables, higher consumption of fats and drinks with high sugar content, and higher rates of smoking and alcohol use (Pérez-Escamilla & Prutnik, 2007). There is a positive association between the level of acculturation and BMI in most immigrant communities in the U.S.; however, this effect is particularly alarming among Mexican-born individuals (Velasco-Mondragon et al., 2016). Hispanics are in need of more culturally appropriate nutrition resources to improve their overall health in the U.S. (Pérez-Escamilla & Prutnik, 2007).

Acculturation can be examined through the lens of the age of arrival, country of origin, and years of residing in the U.S. (Ayala et al., 2008). For example, breastfeeding is considerably higher among Mexican Americans than among Puerto Ricans; and culture or territory of origin can be a factor (Pérez-Escamilla & Prutnik, 2007). Rates of fruit and vegetable consumption also decline during acculturation. Non-U.S.-born Hispanics consumed between 0.96 and 1.25 more servings of fruits and vegetables than U.S.-born Hispanics (Sharma et al., 2004). On the other hand, Mexican American children consumed more sugar-sweetened beverages than Non-Hispanic Whites (Cullen et al., 2000). Less acculturation is associated with the consumption of more nutrient-dense foods (Ayala et al., 2008) however, regardless of their acculturation level,

Hispanics were less likely than whites to fall into a fruit and breakfast cereal pattern and more likely to follow a less nutrient-dense starchy food dietary pattern such as eating rice, bread, and potatoes (Pérez-Escamilla & Prutnik, 2007). A significantly higher BMI and waist circumference were associated with a rice-based consumption pattern (Pérez-Escamilla & Prutnik, 2007). More acculturated individuals also consumed more fatty snacks, fast food, and added fats than less acculturated individuals (Ayala et al., 2008).

Consumption of sugar is a key indicator of acculturation for Hispanic immigrants from various countries. Puerto Ricans living longer in the U.S. consume sugar-sweetened beverages more than their less acculturated counterparts, and Mexican American children consume more sweetened beverages than Non-Hispanic White children (Pérez-Escamilla & Prutnik, 2007). Further, a study conducted among young Hispanic women living in Mississippi and born in Mexico, Central America, and South America found that 61% of those interviewed reported eating more healthily in their country of origin (Ayala et al., 2008). In addition, Ayala et al. (2008) state that less acculturated immigrants were more inclined to consume whole milk and try other meat fat than their high acculturated counterparts.

Foreign-born Hispanics were less likely to report asking for nutrition and physical activity guidance than Hispanic U.S. born (Wallace et al., 2010). For example, a high acculturation level for pregnant women was associated with a 50-80% greater chance of being overweight or obese, and those with a low acculturation level kept the dietary habits from their culture and were less likely to develop obesity (Wallace et al., 2010). Although acculturation showed a positive increase in physical activity and a lower chance of developing Type 2

Diabetes among Hispanics (Pérez-Escamilla & Prutnik, 2007), Hispanic women with higher LEP reported being less physically active than their counterparts with more English language acculturation (Wallace et al., 2010). Their level of acculturation may be a modifier to this risk (Pérez-Escamilla & Prutnik, 2007).

CHAPTER III: GAPS

3.1 Evidence-based approaches

The National Action Plan to Improve Health Literacy vision of the CDC aims to create a society that "provides everyone access to accurate, actionable health information" and "supports life-long learning skills to promote good health" (U.S. Department of Health and Human Services, 2010, p. 1). Offering language translation and interpretation services to patients with LEP is required by law in the U.S. (Velasco-Mondragon et al., 2016). Bilingual and bicultural materials were the most common intervention implemented to provide education on nutrition and diabetes, including ethnic foods, working with community health workers and implementing group sessions were also effective (Mier et al., 2010). In a review that evaluates interventions implemented in diabetes education, positive results were shown on self-reported behaviors, knowledge, and health beliefs; educating on nutrition knowledge can move individuals forward to action, maintenance, and self-efficacy (Chapman-Novakofski & Karduck, 2005). Most studies implementing culturally competent self-management interventions showed improved health outcomes in the Hispanic community where significant improvements were seen in behavioral outcomes on diabetes-related knowledge (Whittemore, 2007). Involving family members in the

interventions by including activities like partner support techniques or parental training, as well as understanding the literacy level of participants, incorporating Hispanic cultural values, and the use of social support and networks can be significant components in the intervention designs (Mier et al., 2010).

Diverse findings show evidence that self-management education is essential for delivering high-quality care (Reynolds et al., 2018). A persistent strong, culturally sensitive behavioral intervention can help address health disparities (Mier et al., 2010). According to Bernal et al. (1995), interventions are more effective when they are culturally relevant to patients. Evidence shows that family and social support correlate with a healthy diet among pregnant women, children, and adults with type 2 diabetes by influencing eating or exercise behaviors among Hispanics (Mier et al., 2010). To understand the Hispanic language use, beliefs, and opinion on specific health issues, it is necessary to implement focus groups, discussions, interviews, and literature searches (Mier et al., 2010). Focus groups allow mutual discussion with target audiences around a specific topic and are a helpful instrument for developing or validating an intervention aimed to be used with immigrant populations (Willgerodt, 2003).

3.2 Gaps

Culturally and linguistically relevant nutrition materials are needed to lessen the health disparities of the Hispanic community. There is a scarcity of interventions based on the literacy level of Hispanic LEP people, the use of social support, and the implementation of cultural values, all required to create trust in the intervention (Mier et al., 2010). There is a risk of

replicating previous interventions based more on practitioners' intuitions and beliefs in providing care to Hispanics if they are not tested in cultural-related theories design (Mier et al., 2010). Few analyzed interventions are based on a cultural framework; this is particularly interesting when there is evidence that cultural differences in minority populations can be a factor for health disparities (Chin et al., 2007). The most common tools in the interventions for addressing health disparities among Hispanics are bilingual and bicultural materials; however, few approaches used the back-translation technique when developing Spanish resources (Mier et al., 2010). Hence, it is recommended to develop materials incorporating the back-translation technique to ensure language and cultural literacy (Mier et al., 2010).

In a study that conducted interviews among dietitians working with Hispanic clients, dietitians expressed that addressing the language barrier is not enough when working with patients whose cultural background and food habits are not well understood; culturally appropriate resources are needed to counsel clients from different ethnic groups, like the Hispanic Caribbean population (Fuster et al., 2022). Creating materials in languages other than English, including cultural concepts and appropriate terminology for the audience rather than merely translating them from the English versions, ensures that cultural concepts and language nuances are appropriate for the audience (Reynolds et al., 2018). Research shows the need to develop nutrition education interventions, including meal planning, basic nutrition content, food preparation skills, and food shopping (Varela et al., 2023). Educating individuals to manage their nutrition for diabetes can be a successful approach; even though knowledge does not assure behavior change, improving knowledge can translate into positive benefits (Chapman-(Chapman-Novakofski & Karduck, 2005). Learning basic nutrition facts, the role of fiber fats,

reading food labels, and implementing meal planning can improve knowledge for those with preexisting knowledge (Chapman-Novakofski & Karduck, 2005)

CHAPTER III: APPROACH PLAN

3.1.1 Purpose

Culturally Relevant Food Lists (CRFL) will be developed to support food pantries and agencies serving food-insecure Hispanics from Mexico, Puerto Rico, El Salvador, Guatemala, and Colombia. Learning about traditional foods will help these agencies make these products available to support Hispanic people, and the Hispanics that visit food pantries will be better able to access their traditional foods and avoid relying on the processed foods typically found in the American diet.

3.1.3 Participant Sample

People will be recruited from food pantries and agencies working with the Atlanta Community Food Bank (Food Bank) to participate in focus groups. The goal is to recruit at least five adults from top Georgia's five Latin American countries: Mexico, Colombia, El Salvador, Guatemala, and Puerto Rico, for a total of 25 people. The focus groups will be conducted at sites easily accessed by Hispanic participants or where transportation does not represent a barrier to attendance because, according to the U.S. Department of Health and Human Services (2023),

transportation is one of the barriers people face to access food. Participants must be over 18 years old, native Spanish speakers, and a client of the recruiting agency. Focus groups will last about 60 minutes and take place over one or two weeks.

3.1.4 Recruiting Process

People will be recruited in person at agency sites and by phone. Food pantry staff will determine the day and time of the focus groups based on their knowledge of their client base. Food pantry staff tend to know their clientele very well and will invite Hispanic adults from Mexico, Guatemala, Colombia, El Salvador, and Puerto Rico to the focus groups. Participants will be paid $20 per session. Recruiters will explain the objective of the focus groups and how the compensation will work. A focus group schedule will be created; emails and texts will be sent to confirm with participants the specific time and day of the focus group. Participants will get reminder calls 1 week and 1 day before the focus groups.

3.1.4 Instrument

The Food Pantry Focus Group Questionnaire was adapted from Leah's Pantry(n/d), a non-profit based in California whose mission is "to build and implement community nutrition and food security programs that align with trauma-informed, resilience-focused principles." The questionnaire was translated into Spanish and modified by a bilingual nutrition educator at the Food Bank to include questions about traditional foods and dishes and more about specific foods they get from their food pantries. The questionnaire will be distributed to participants as they

arrive at the focus groups. After participants receive the questionnaire, the facilitator will show a list of food items commonly found at the food pantries; the facilitator will have the foods placed on a table so people can watch or touch them. Then, participants will complete the first section of the questionnaire individually. The Food Bank staff or volunteers will assist participants who cannot read and/or write. Participants will rate how likely they are to choose each food from their food pantry on a scale of 1 to 5 (1 = not at all likely; 5 = very likely). Then, the facilitator will convene the group to discuss a series of open-end questions regarding the foods they enjoy receiving at their food pantry, the food they do not like to receive, the foods they would like to see more often, and the foods they tend to purchase at the market because they don't receive it at their food pantry. Another set of open-ended questions prompts participants to reference the food items common in their culture. The answers are categorized into grains/legumes, oils, vegetables, fruit, canned meat/fish, fresh meat or fish, and spices. Finally, there are two questions about the dishes they usually prepare for everyday and special occasions. All questions were designed to get the information needed to ensure the availability of traditional eats at food pantries and partners of the Food Bank.

3.1.5 Data Management

All focus group sessions will be recorded with a smartphone to ensure the accuracy of the information. Two Spanish-speaking assistants will be present to take notes and assist participants if needed. The focus group recording and data will be translated into English by a bilingual nutrition educator at the Food Bank. A separate database spreadsheet will be created for each country of origin, and within it, one sheet per question. Each sheet will have three columns: one

for coding, one for a participant ID number, and one column for responses. The recording and data will be stored in the Nutrition Resources folder and deleted after the CRFL are developed. After compiling all data, the CRFL will be created with participants' food preferences.

3.1.6 Human Subjects

This is not considered generalizable research; therefore, this project is considered Non-Human Subjects research as determined by the Georgia State University IRB (Institutional Review Board).

3.1.7 Cost

After the focus group, participants will receive a $20 Walmart gift card to compensate for their time and opinions. These will be provided by the Food Bank. The budget for compensation will be $500-700 to allow for 25-35 individual participants. Refreshments, such as snacks, water, and coffee, will be offered at each focus group. These will be provided by the agency or the Food Bank, with a budget of $50 per session, resulting in a $250-$400 catering expenditure overall, depending on the number of focus groups conducted. The moderator will be compensated $18 per hour. The average cost per focus group is $90.

3.1.8 Anticipated Problems and Solutions

Agency and food pantry staff will assist participants, offer refreshments, help them make their name tents, and orient and/or assist them in completing the first section of the questionnaire. Over-invite will be implemented since, according to (Eliot & Associates, 2005), the no-show rate to focus groups varies from 10% to 20%. Therefore, 10-12 people will be invited to each session to ensure 5-7 participants. To avoid no-shows because of a lack of transportation, the focus groups will be conducted on accessible sites and those closest to Hispanic communities.

3.1.9 Developing and Disseminating the CRFL

A CRFL will be created for Mexico, Puerto Rico, El Salvador, Guatemala, and Colombia after conducting focus groups with Hispanic clients and learning about their traditional foods, products, and dishes. The CRFLs will include 1) a list of foods people from that country are likely to enjoy, 2) a list of foods people from that country are likely to pass up, and 3) a list of traditional dishes that people from that country enjoy for breakfast, lunch, and dinner, 4) a description of important celebrations and cultural considerations to improve the knowledge of the cultural values of Hispanic cultures. Information about important celebrations and cultural considerations will be retrieved from the public health online resources from each's country government agencies:

- Mexico: www.imss.gob.mx/sites/all/statics/salud/guia-alimentos.pdf
- Guatemala: www1.paho.org/gut/dmdocuments/guias-alimentarias-corregida.pdf

- El Salvador: www.fao.org/3/as867s/as867s.pdf
- Colombia: www.icbf.gov.co/system/files/guias_alimentarias_basadas_en_alimentos_para_la_poblacion_colombiana_mayor_de_2_anos_0.pdf
- Puerto Rico: alimentacionynutricionpr.org/wp-content/uploads/2021/12/Guia-final-12-nov-21-002_compressed.pdf

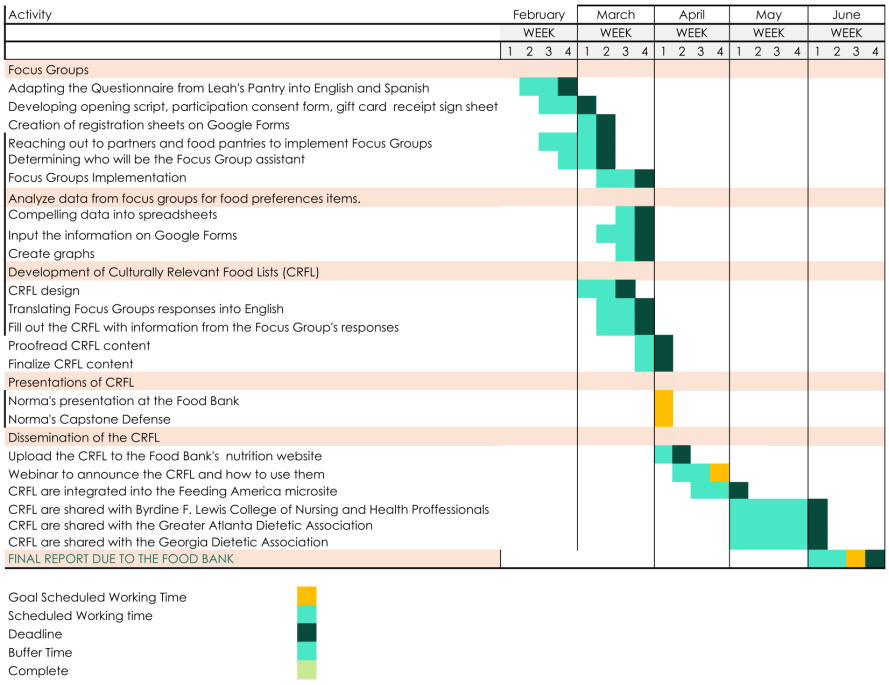
The CRFLs will be published in Spanish and English and include the language and dialect common to each country. The documents will be accessible to food pantries and agencies working with Hispanic populations. Finally, the process of conducting the focus groups, lessons learned, and best practices will also be shared so it can be replicated in other future projects.

The target audience for the CRFLs are staff and volunteers working in the Food Bank network in Georgia. The Food Bank will host a webinar to announce the CRFLs and orient the network on how to use them. All Food Bank staff and partner agencies will be invited to attend. The Food Bank will then upload the CRFLs, guide, and webinar recording (CRFL package) to its nutrition resource website, where they will be available on demand to its partner agencies, other organizations working towards ending hunger, and the wider public. The CRFL package will be added to the Food Bank's Nudges Toolkit (a series of resources to help make healthy choices the easy choice) and be a standard part of the consultation process provided by the Nutrition and Wellness team to food pantries in the network. The Food Bank is part of Feeding America, a national organization and network of over 200 food banks. Feeding America hosts a microsite, www.hungerandheath.org, whose mission is to "educate, connect and engage cross-sector

professionals on the intersections of food insecurity, nutrition, and health." The CRFL package will be uploaded and shared on this website and announced to the Feeding America network of food banks in an online seminar hosted by the Cultural Conversations practice group. This networking group is hosted by Feeding America and includes food bankers across the U.S. interested in advancing cultural literacy in food banking and providing culturally appropriate foods within the net. Finally, the CRFL package will be shared with departments of the Byrdine F. Lewis College of Nursing and Health Professions, the Greater Atlanta Dietetic Association, and the Georgia Dietetic Association. Table 2 shows the expected timeline for each step of the CRFL's communication and dissemination.

Table 2

GANTT CHART, CULTURALLY RELEVANT FOOD LISTS PROJECT.



APPENDIX

MARCH 16, 2023

Focus Group Confirmation Letter

Dear Participant:

Thanks for your willingness to participate in our focus group. As discussed on the phone, we would like to hear your ideas and opinions about traditional and cultural foods that are, or you wish would be available in your pantry. You will be in a group with 5-6 Hispanics people from either Mexico, Guatemala, El Salvador, Colombia, and Puerto Rico. Your responses to the questions will be kept anonymous. The date, time and date are listed below. Please look for signs once you arrive directing you to the room where the focus group will be held.

DATE
TIME
PLACE

Sincerely,
Norma Guardado Lopez,
Bilingual Nutrition and Wellness Educator at the Atlanta Community Food Bank

16 DE MARZO, 2023

Confirmación de Asistencia al Grupo de Discusión Focal

Estimado participante:

Gracias por tu disposición para participar en nuestro grupo de discusión focal. Como te explicamos por teléfono, nos gustaría escuchar tus ideas y opiniones sobre los alimentos tradicionales y culturales que están disponibles en tu banco de alimentos, o aquellos que desearías que estuvieran disponibles. Estarás en un grupo con 5-6 hispanos de México, Guatemala, El Salvador, Colombia y Puerto Rico. Tus respuestas a las preguntas se mantendrán anónimas. La fecha, la hora y la fecha se mencionan a continuación. Una vez que llegues, busca las señales que te dirijan a la sala donde se llevará a cabo el grupo de discusión focal.

DíA
HORA
LUGAR

Atentamente,
Norma Guardado Lopez
Educadora bilingue en Nutrición en el Atlanta Community Food Bank

Consent to Participate in Focus Group

You Have Been asked to participate in a focus group sponsored by the Atlanta Community Food Bank. The group's purpose is to learn about your food preferences and cultural or traditional products that you will most likely pick at a pantry. The information learned in this focus group will be used to develop a public health document intended to better serve food-insecure Hispanics from Mexico, Colombia, El Salvador, Guatemala, and Puerto Rico.

You can choose whether or not to participate in the focus group and stop at any time. Although the focus groups will be tape-recorded, your responses will remain anonymous, and no names will be mentioned in the report.

There are no right or wrong answers to the focus group questions. We want to hear many different viewpoints and would like to hear from everyone. We hope you can be honest even when your responses may not agree with the rest of the group. In respect for each other, we ask that only one individual speaks at a time in the group and that responses made by all participants be kept confidential.

I understand this information and agree to participate fully under the conditions stated above.

Signed:_____ Date:_____

Consentimiento para Participar en el Grupo de Discusión Focal

Has sido invitado a participar en un grupo de discusión focal patrocinado por el Atlanta Community Food Bank. El propósito del grupo es aprender sobre tus preferencias alimentarias y los productos culturales o tradicionales que probablemente elegirías en un banco de alimentos. La información aprendida en este grupo de enfoque se utilizará para desarrollar un documento de salud pública destinado a servir mejor a los hispanos con inseguridad alimentaria de México, Colombia, El Salvador, Guatemala y Puerto Rico.

Puedes elegir participar o no y detener tu participatión en el grupo en cualquier momento. Aunque la sesión será grabada en notas de voz, tus respuestas permanecerán anónimas y no se mencionarán nombres en el informe.

No hay respuestas correctas o incorrectas a las preguntas de los grupos focales. Queremos escuchar muchos puntos de vista diferentes y nos gustaría saber la de todos. Esperamos que puedas ser honesto incluso cuando tus respuestas no estén de acuerdo con el resto del grupo. Por respeto mutuo, pedimos que solo una persona hable a la vez en el grupo y que las respuestas de todos los participantes se mantengan confidenciales.

Entiendo esta información y acepto participar plenamente bajo las condiciones establecidas anteriormente.

Firma:_____ Fecha:_____

CRFL Focus Group – 3/16/2023

Opening Script

Hello. My name is Norma Guardado Lopez, and I will lead our discussion today. I will be asking you questions and then encouraging and moderating our discussion. I'd like to start by thanking each of you for taking the time to participate today. We'll be talking for about 1 hour for today's session, and you will receive a $20 Walmart gift card for your time and sharing your expertise.

We're here today to gather your opinions and attitudes surrounding the food you receive from this pantry- what you like, what you dislike, and how _____ is set up to give away food. We hope to use the information collected today to influence potential updates to _____and learn how they can serve you better.

To allow our conversation to flow more freely, I'd like to go over some ground rules.

1. Please turn off notifications on your device and put them away.
2. This is a confidential discussion, so remember that what is said in this room stays here.
3. Only one person speaks at a time.
4. Everyone doesn't have to answer every question, but I'd like to hear from each of you today as the discussion progresses. You can also just say you agree with what another person has said if that's the case or provide a different opinion.
5. There are no "wrong answers," just different opinions. You don't have to agree with everyone else- we want multiple perspectives, so please be honest about what is true.
6. Don't let the group sway you. But if you do change your mind, let me know.
7. Please be respectful of other people's opinions. If you disagree with an opinion, speak from your own point of view without criticizing another person.

I also would like you to know that this focus group will be recorded. The identities of all participants will remain confidential. The audio recording will help us get the most out of your responses. I want to get verbal confirmation from my co-facilitator that the record button has been pressed. Thank you.

Are there any questions?
OK, let's get started.

Grupo de Discusión Focal– 3/16/2023

Guión de Apertura

Hola. Mi nombre es Norma Guardado Lopez, y me gustaría empezar agradeciendo a cada uno de ustedes for tomarse el tiempo para participar el día de hoy. La sesión nos tomará alrededor de una hora. Al final de la sesión, recibirán una targeta de regalo de Walmart de $20.

La razón por la que estamos aquí hoy es porque estamos especialmente interesados en escuchar más acerca de sus opiniones en torno a la comida que ustedes reciben de _____, nos gustaría escuchar lo que les gusta, lo que no les gusta, qué tipo de alimentos cocinan en casa, los productos que les gustaría que ofrecieran etc. Esperamos utilizar la información recogida hoy para ayudar a mejorar el servicio que reciben de _____.

Voy a dirigir nuestra discusión de hoy. Les haré preguntas y luego moderaré nuestra discusión.También me gustaría que supieran que este grupo de discusión será grabado. Las identidades de todos los participantes permanecerán en confidencialidad. Solo quiero la confirmación verbal de mi cofacilitador de que el botón de grabación ha sido presionado.

Para permitir que nuestra conversación fluya más libremente, me gustaría repasar algunas reglas básicas.

1. Por favor, sus celulares deben estar en modo No molestar o con las notificaciones apagadas, y por favor, evitemos usar otras aplicaciones o mandar mensajes mientras estamos en esta sesión.
2. Esta es una discusión confidencial, así que recuerda que lo que se dice en esta discusión se queda aquí.
3. Solo una persona habla a la vez.
4. No todo el mundo tiene que responder a todas las preguntas, pero me gustaría escuchar a cada uno de ustedes hoy a medida que avanza la discusión.
5. No hay "respuestas equivocadas", solo opiniones diferentes. Ustedes no tiene que estar de acuerdo con todos los demás queremos múltiples perspectivas, así que por favor sean honestos acerca de lo que es cierto para ustedes.
6. No dejen que el grupo los influencie. Pero si cambian de opinión, háganmelo saber.
7. Por favor, seamos respetuoso con las opiniones de otras personas. Si no estás de acuerdo con una opinión, habla desde tu propio punto de vista sin criticar la de otra persona.

¿Hay alguna otra pregunta?
De acuerdo, vamos a empezar.

¿Eres de México, Guatemala Colombia, El Salvador o Puerto Rico?

¡Te invitamos a un Grupo de Discusión!

Participa y recibe una tarjeta Walmart con $20

El Banco de Alimentos de la Comunidad de Atlanta está patrocinando dos grupos de Discusión para escuchar tus opiniones acerca de los alimentos que recibes y sobre los que te gustaría recibir. Las opiniones serán anónimas. El objetivo es que tengas acceso a alimentos tradicionales como los de tu país de origen.

Hora:	2:30 PM - 3:30 PM y 3:40 PM - 4:40 PM
Cuando:	Jueves, 30 de marzo
Donde:	LATIN AMERICAN ASSOCIATION 2750 Buford Highway NE, Atlanta, GA 30324

Si estás interesad@ en participar, llámanos o mándanos un mensaje a este telefono:

470 440 9194

ATLANTA COMMUNITY FOODBANK

Are you from Mexico, Colombia, El Salvador or Puerto Rico?

Don't miss our Focus Groups,
We want to hear you!

Get a $20 Walmart gift card for participating

The Atlanta Community Food Bank is sponsoring this Focus Group Discussion to hear your opinions about the food you receive and how we can serve you better. All opinions will remain anonymous. The objective is that you have access to traditional foods like those of your country of origin.

Time:	8:30 AM - 9:30 AM and 9:40 AM - 10:40 AM
When:	Wednesday, March 29
Where:	MALACHI'S STOREHOUSE St. Patrick's Episcopal Church 4755 N. Peachtree Rd. Dunwoody, GA 30338 Bus #132

If you are interested in participating, call us or text to:
470 440 9194

ATLANTA COMMUNITY FOODBANK

Food Pantry Focus Group Questionnaire

1. Mention your country of origin:_____

2. How likely will you take the following food items from your food pantry?

Food Item	Don't recognize	Retings (1=less likely, 5=most likely)	Average rating (this section will be filled out by the Facilitator after compiling all responses)
Canned fish			
Canned beans			
Dry beans			
Chickpeas			
Pinto bean			
Lentils			
Peas			
Canned vegetables			
Canned fruit			
Rolled oats			
Instant oatmeal			
Regular rice			
Spaguetti			

Whole wheat spaghetti			
Cereal			
Crackers cookies			
Peanut butter			
Jelly/jam			
Chicken broth			
Juice			
Pasta sauce			
Mac 'n cheese			
Granola bars			
Rice cereal treats			
Tart Pops			
Hamburger Helper			
Red quinoa			
Walnuts			
Buttermilk			
Bell pepper			
Onion			
Sweet potato			
Carrots			

3. What foods that I did not mention have you received that you really liked?

4. What foods that I did not mention have you received that you did not like at all?

3

5. What are common food items found in your hometown kitchen?

Grains/ Legumes	Oils	Vegetables	Fruits	Meat (type y cut)	Canned Meat/Fish	Spices

6. What are some dishes that you make often?

Breakfast	Lunch	Dinner

7. What is an example of an everyday meal or dish?

4

Cuestionario de Grupo de Discusión sobre Bancos de Alimentos

1. País de origen:_____

2. ¿Qué tan probable es que elija los siguientes alimentos de su banco de alimentos?

Alimento	No lo reconozco	Valoración (1=menos probable, 5=muy probable)	Valoración promedio
Pescado enlatado			
Frijoles enlatados			
Frijoles secos			
Garbanzo			
Frijol pinto			
Lentejas			
Chícharos			
Vegetales enlatados			
Fruta enlatada			
Copos de avena			
Avena instantánea			

Arroz regular			
Espagueti			
Espagueti integral			
Cereal			
Galletas crackers			
Mantequilla de cacahuate			
Mermelada			
Caldo de pollo			
Jugo			
Salsa para pasta			
Mac 'n cheese (macarrones con queso)			
Barras de granola			
Barras de arroz			
Tart Pops			
Hamburger Helper			
Quinoa roja			

Nueces			
Buttermilk			
Pimientos			
Cebolla			
Camote			
Zanahoria			

3. ¿Qué alimentos que no mencioné has recibido y te gustan mucho?

4. ¿Qué alimentos has recibido que no te gustan?

3

5. ¿Cuáles son los alimentos comunes que se encuentran en tu ciudad natal?

Granos/ Legumbre	Aceites	Vegetales	Frutas	Carne (tipo y corte)	Carne/Pescado enlatado	Especias

6. Cuáles platillos preparas constantemente?

Desayuno	Comida	Cena

7. Alimentos que siempre compras en el supermercado porque no los encuentras en tu banco de alimentos

Phone Call Disposition							
Culturaltly Relevant Food List Focus Group							
Date	Invitee Name	Phone	Able to participate?			Address	Confirmation letter sent
			YES	NO	COMMENTS		

CULTURAL FOOD PREFERENCES
MEXICO

Foods This Group Will **Likely Enjoy**

Bold text, *indicates items that are likely to be offered at food pantries.*

FRESH VEGETABLES /HERBS
- Beets
- Bok choy

FRESH FRUIT, ESPECIALLY
- Apples
- Avocados

MEATS/ PROTEINS
- Beef shank
- Canned fish

PANTRY ITEMS
- Bread
- Brownie mix

DAIRY
- Milk
-

Foods This Group **Might Pass Up**

Bold text, *indicates items that are likely to be offered at food pantries.*

- Black beans
- Ki
- V

Common **Dishes**

Cultural **Considerations**

Key **Traditions**

ATLANTA COMMUNITY FOODBANK

Find more nutrition resources at: bit.ly/ACFBNutritionResources

CULTURAL FOOD PREFERENCES
PUERTO RICO

Foods This Group Will **Likely Enjoy**

Bold text, *indicates items that are likely to be offered at food pantries.*

FRESH VEGETABLES /HERBS
- Beets
- Bok choy

FRESH FRUIT, ESPECIALLY
- Apples
- Avocados

MEATS/ PROTEINS
- Beef shank
- Canned fish

PANTRY ITEMS
- Bread
- Brownie mix

DAIRY
- Milk
-

Foods This Group **Might Pass Up**

Bold text, *indicates items that are likely to be offered at food pantries.*

- Black beans
- Ki
- V

Common **Dishes**

Cultural **Considerations**

Key **Traditions**

ATLANTA COMMUNITY FOODBANK

Find more nutrition resources at: bit.ly/ACFBNutritionResources

CULTURAL FOOD PREFERENCES GUATEMALA

Foods This Group Will **Likely Enjoy**

Bold text, *indicates items that are likely to be offered at food pantries.*

FRESH VEGETABLES /HERBS
- Beets
- Bok choy

FRESH FRUIT, ESPECIALLY
- Apples
- Avocados

MEATS/ PROTEINS
- Beef shank
- Canned fish

PANTRY ITEMS
- Bread
- Brownie mix

DAIRY
- Milk
-

Foods This Group **Might Pass Up**

Bold text, *indicates items that are likely to be offered at food pantries.*

- Black beans
- Ki
- V

Common **Dishes**

Cultural **Considerations**

Key **Traditions**

ATLANTA COMMUNITY FOODBANK

Find more nutrition resources at: bit.ly/ACFBNutritionResources

CULTURAL FOOD PREFERENCES
EL SALVADOR

Foods This Group Will **Likely Enjoy**

Bold text, *indicates items that are likely to be offered at food pantries.*

FRESH VEGETABLES /HERBS	FRESH FRUIT, ESPECIALLY	MEATS/ PROTEINS	PANTRY ITEMS	DAIRY
Beets	Apples	Beef shank	Bread	Milk
Bok choy	Avocados	Canned fish	Brownie mix	

Foods This Group **Might Pass Up**

Bold text, *indicates items that are likely to be offered at food pantries.*

- Black beans
- Ki
- V

Common **Dishes**

Cultural **Considerations**

Key **Traditions**

ATLANTA COMMUNITY FOODBANK

Find more nutrition resources at: bit.ly/ACFBNutritionResources

CULTURAL FOOD PREFERENCES COLOMBIA

Foods This Group Will **Likely Enjoy**

Bold text, *indicates items that are likely to be offered at food pantries.*

FRESH VEGETABLES /HERBS
- Beets
- Bok choy

FRESH FRUIT, ESPECIALLY
- Apples
- Avocados

MEATS/ PROTEINS
- Beef shank
- Canned fish

PANTRY ITEMS
- Bread
- Brownie mix

DAIRY
- Milk
-

Foods This Group **Might Pass Up**

Bold text, *indicates items that are likely to be offered at food pantries.*

- Black beans
- Ki
- V

Common **Dishes**

Cultural **Considerations**

Key **Traditions**

ATLANTA COMMUNITY FOODBANK

Find more nutrition resources at: bit.ly/ACFBNutritionResources

References

Adams, E. J., Grummer-Strawn, L., & Chavez, G. (2003). Food insecurity is associated with increased risk of obesity in California women. *The Journal of Nutrition*, *133*(4), 1070–1074. https://doi.org/10.1093/jn/133.4.1070

Al Shamsi, H., Almutairi, A. G., Al Mashrafi, S., & Al Kalbani, T. (2020). Implications of Language Barriers for Healthcare: A Systematic Review. *Oman Medical Journal*, *35*(2), e122. https://doi.org/10.5001/omj.2020.40

Aragones, A., Hayes, S. L., Chen, M. H., González, J., & Gany, F. M. (2014). Characterization of the Hispanic or Latino Population in Health Research: A Systematic Review. *Journal of Immigrant and Minority Health / Center for Minority Public Health*, *16*(3), 429–439. https://doi.org/10.1007/s10903-013-9773-0

Ayala, G. X., Baquero, B., & Klinger, S. (2008). A systematic review of the relationship between acculturation and diet among Latinos in the United States: Implications for future research. *Journal of the American Dietetic Association*, *108*(8), 1330–1344. https://doi.org/10.1016/j.jada.2008.05.009

Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: Issues for the cultural adaptation and development of psychosocial treatments with Hispanics. *Journal of Abnormal Child Psychology*, *23*(1), 67–82. https://doi.org/10.1007/BF01447045

Cartwright, K. (2021). *Social determinants of the Latinx diabetes health disparity: A Oaxaca-Blinder decomposition analysis—ScienceDirect*. https://www.sciencedirect.com/science/article/pii/S2352827321001440?via%3Dihub

Centers for Disease Control. (2015). *Hispanic Health*. https://www.cdc.gov/vitalsigns/hispanic-health/index.html

Centers for Disease Control. (2021, March 5). *Self-Management Education (SME) Programs for Chronic Health Conditions*. https://www.cdc.gov/learnmorefeelbetter/programs/index.htm

Centers for Disease Control. (2022). *Uninsured—Health, United States*. https://www.cdc.gov/nchs/hus/sources-definitions/uninsured.htm

Chapman-Novakofski, K., & Karduck, J. (2005). Improvement in knowledge, social cognitive theory variables, and movement through stages of change after a community-based diabetes education program. *Journal of the American Dietetic Association, 105*(10), 1613–1616. https://doi.org/10.1016/j.jada.2005.07.010

Chin, M. H., Huang, E. S., Cook, S. C., & Walters, A. E. (2007). *Interventions to Reduce Racial and Ethnic Disparities in Health Care*. https://journals.sagepub.com/doi/10.1177/1077558707305413

Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2022). *Household Food Security in the United States in 2021* [Economic Research Report]. U.S. Department of Agriculture. https://www.ers.usda.gov/webdocs/publications/104656/err-309.pdf?v=7994.8

County Health Rankings. (2023). *Compare Counties*. County Health Rankings & Roadmaps. https://www.countyhealthrankings.org/explore-health-rankings/compare-counties

Cullen, K. W., Baranowski, T., Rittenberry, L., & Olvera, N. (2000). Social-environmental influences on children's diets: Results from focus groups with African-, Euro- and Mexican-American children and their parents. *Health Education Research*, *15*(5), 581–590. https://doi.org/10.1093/her/15.5.581

Dominguez, K., Penman-Aguilar, A., Chang, M.-H., Moonesinghe, R., Castellanos, T., Rodriguez-Lainz, A., Schieber, R., & Centers for Disease Control and Prevention (CDC). (2015). Vital signs: Leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States - 2009-2013. *MMWR. Morbidity and Mortality Weekly Report*, *64*(17), 469–478.

Dummer, T. J. B. (2008). Health geography: Supporting public health policy and planning. *CMAJ*, *178*(9), 1177–1180. https://doi.org/10.1503/cmaj.071783

Eliot & Associates. (2005). *Guidelines for Conducting a Focus Group*. https://datainnovationproject.org/wp-content/uploads/2017/04/4_How_to_Conduct_a_Focus_Group-2-1.pdf

Foiles Sifuentes, A. M., Robledo Cornejo, M., Li, N. C., Castaneda-Avila, M. A., Tjia, J., & Lapane, K. L. (2020). The Role of Limited English Proficiency and Access to Health Insurance and Health Care in the Affordable Care Act Era. *Health Equity*, *4*(1), 509–517. https://doi.org/10.1089/heq.2020.0057

Funk, C., & Lopez, M. H. (2022, June 14). A brief statistical portrait of U.S. Hispanics. *Pew Research Center Science & Society*. https://www.pewresearch.org/science/2022/06/14/a-brief-statistical-portrait-of-u-s-hispanics/

Fuster, M., Leak, T. M., & Galitzdorfer, L. (2022). *View of "Because I don't come from the culture:" Examining dietitian's experience promoting healthy dietary behaviors among*

Hispanic Caribbean clients in New York City | Journal of Critical Dietetics. https://journals.library.torontomu.ca/index.php/criticaldietetics/article/view/1445/1466

Guntzviller, L. M., King, A. J., Jensen, J. D., & Davis, L. A. (2017). Self-Efficacy, Health Literacy, and Nutrition and Exercise Behaviors in a Low-Income, Hispanic Population. *Journal of Immigrant and Minority Health*, *19*(2), 489–493. https://doi.org/10.1007/s10903-016-0384-4

Hall, W. J., Chapman, M. V., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review. *American Journal of Public Health*, *105*(12), e60-76. https://doi.org/10.2105/AJPH.2015.302903

Heiss, C. J., Rengers, B., Fajardo-Lira, C., Henley, S. M., Bizeau, M., & Gillette, C. D. (2011). Preparing Dietetics Practitioners to Effectively Serve the Hispanic Population. *Journal of the American Dietetic Association*, *111*(3), 364. https://doi.org/10.1016/j.jada.2011.01.018

Hirode, G., & Wong, R. J. (2020). Trends in the Prevalence of Metabolic Syndrome in the United States, 2011-2016. *JAMA*, *323*(24), 2526–2528. https://doi.org/10.1001/jama.2020.4501

Jacobson, H. E., Hund, L., & Soto Mas, F. (2016). Predictors of English Health Literacy among U.S. Hispanic Immigrants: The importance of language, bilingualism and sociolinguistic environment. *Literacy & Numeracy Studies: An International Journal in the Education and Training of Adults*, *24*(1), 43–64. https://doi.org/10.5130/lns.v24i1.4900

Leah's Pantry. (n/d). *Leah's Pantry Nutrition Education*. Leah's Pantry. Retrieved March 230 from, https://leahspantry.org/

Lopez-Quintero, C., Berry, E. M., & Neumark, Y. (2010). Limited English Proficiency Is a Barrier to Receipt of Advice about Physical Activity and Diet among Hispanics with Chronic Diseases in the United States. *Journal of the American Dietetic Association*, *110*(5, Supplement), S62–S67. https://doi.org/10.1016/j.jada.2010.03.009

Mier, N., Ory, M. G., & Medina, A. A. (2010). Anatomy of Culturally Sensitive Interventions Promoting Nutrition and Exercise in Hispanics: A Critical Examination of Existing Literature. *Health Promotion Practice*, *11*(4), 541–554. https://doi.org/10.1177/1524839908328991

Office of Minority Health. (n.d.). *Diabetes and Hispanic Americans*. Retrieved March 30, 2023, from https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=63

Office of the Assistant Secretary for Health. (2022, October 6). *HHS Takes Action to Break Language Barriers* [Text]. HHS.Gov. https://doi.org/10/06/hhs-takes-action-break-language-barriers.html

Pérez-Escamilla, R., & Prutnik, P. (2007). *The Role of Acculturation in Nutrition, Lifestyle, and Incidence of Type 2 Diabetes among Latinos1 | Elsevier Enhanced Reader*. https://reader.elsevier.com/reader/sd/pii/S0022316622091489?token=25B883F7AAA98ABC67F835045C5D60132F656C3BBFBA45924FDFF4A31AA768221F038BA77A3A79D39CAF21CB99F8FF36&originRegion=us-east-1&originCreation=20230330171206

Potochnick, S., Perreira, K. M., Bravin, J. I., Castañeda, S. F., Daviglus, M. L., Gallo, L. C., & Isasi, C. R. (2019). Food Insecurity Among Hispanic/Latino Youth: Who Is at Risk and

What Are the Health Correlates? *Journal of Adolescent Health*, *64*(5), 631–639. https://doi.org/10.1016/j.jadohealth.2018.10.302

Reynolds, R., Dennis, S., Hasan, I., Slewa, J., Chen, W., Tian, D., Bobba, S., & Zwar, N. (2018). A systematic review of chronic disease management interventions in primary care. *BMC Family Practice*, *19*(1), 11. https://doi.org/10.1186/s12875-017-0692-3

Rivadeneyra, R., Elderkin-Thompson, V., Silver, R. C., & Waitzkin, H. (2000). Patient centeredness in medical encounters requiring an interpreter. *The American Journal of Medicine*, *108*(6), 470–474. https://doi.org/10.1016/s0002-9343(99)00445-3

Santana, S., Brach, C., Harris, L., Ochiai, E., Blakey, C., Bevington, F., Kleinman, D., & Pronk, N. (2021). Updating Health Literacy for Healthy People 2030: Defining Its Importance for a New Decade in Public Health. *Journal of Public Health Management and Practice*, *27*(6), S258–S264. https://doi.org/10.1097/PHH.0000000000001324

Shankar, J., Ip, E., Khalema, E., Couture, J., Tan, S., Zulla, R. T., & Lam, G. (2013). Education as a Social Determinant of Health: Issues Facing Indigenous and Visible Minority Students in Postsecondary Education in Western Canada. *International Journal of Environmental Research and Public Health*, *10*(9), 3908–3929. https://doi.org/10.3390/ijerph10093908

Sharma, S., Murphy, S. P., Wilkens, L. R., Shen, L., Hankin, J. H., Monroe, K. R., Henderson, B., & Kolonel, L. N. (2004). Adherence to the food guide pyramid recommendations among African Americans and Latinos: Results from the multiethnic cohort. *Journal of the American Dietetic Association*, *104*(12), 1873–1877. https://doi.org/10.1016/j.jada.2004.08.033

Soto Mas, F., Ming, J., Brenda O., F., & Josefina, T. (2015). The Health Literacy and ESL Study: A Community-Based Intervention for Spanish-Speaking Adults. *Journal of Health Communication*, *20*(4), 369–376. https://doi.org/10.1080/10810730.2014.965368

Squires, A., & Youdelman, M. (2019). Section 1557 of the Affordable Care Act: Strengthening Language Access Rights for Patients With Limited English Proficiency. *Journal of Nursing Regulation*, *10*(1), 65–67. https://doi.org/10.1016/S2155-8256(19)30085-7

Strokoff, S. L., & Grossman, E. G. (2010). *Compilation of Patient Protection and Affordable Care Act*. Office of the Legislative Counsel. https://housedocs.house.gov/energycommerce/ppacacon.pdf

Timmins, C. L. (2002). The Impact of Language Barriers on the Health Care of Latinos in the United States: A Review of the Literature and Guidelines for Practice. *Journal of Midwifery & Women's Health*, *47*(2), 80–96. https://doi.org/10.1016/S1526-9523(02)00218-0

Titus, S. K., & Kataora-Tahiro, M. (2018). *A Systematic Review of Barriers to Access-to-Care in Hispanics With Type 2 Diabetes—Sharon K. Titus, Merle Kataoka-Yahiro, 2019*. https://journals.sagepub.com/doi/10.1177/1043659618810120

U.S. Census Bureau. (n.d.-a). *Food Stamps/Supplemental Nutrition Assistance Program*. Deparment of Commerce. Retrieved February 20, 2023, from https://data.census.gov/table?q=SNAP/Food+Stamps&g=040XX00US13&y=2021&d=ACS+5-Year+Estimates+Subject+Tables&tid=ACSST5Y2021.S2201

U.S. Census Bureau. (n.d.-b). *Hispanic or Latino Origin by Specific Origin*. Deparment of Commerce. Retrieved March 30, 2023, from

https://data.census.gov/table?q=United+States&t=Hispanic+or+Latino&g=040XX00US13&y=2021&d=ACS+5-Year+Estimates+Detailed+Tables&tid=ACSDT5Y2021.B03001

U.S. Census Bureau. (n.d.-c). *Language Spoken at Home*. Department of Commerce. Retrieved March 30, 2023, from https://data.census.gov/table?t=Language+Spoken+at+Home&g=010XX00US&y=2020

U.S. Department of Agriculture. (2018). *A Short History of SNAP*. Retrieved From. https://www.fns.usda.gov/snap/short-history-snap

U.S. Department of Health and Human Services. (2010). *National Action Plan to Improve Health Literacy* [Office of Disease Prevention and Health Promotion]. chrome-https://health.gov/sites/default/files/2019-09/Health_Lit_Action_Plan_Summary.pdf

U.S. Department of Health and Human Services. (2023). *Food Accessibility, Insecurity and Health Outcomes*. NIMHD. https://www.nimhd.nih.gov/resources/understanding-health-disparities/food-accessibility-insecurity-and-health-outcomes.html

Varela, E. G., McVay, M. A., Shelnutt, K. P., & Mobley, A. R. (2023). The Determinants of Food Insecurity Among Hispanic/Latinx Households With Young Children: A Narrative Review. *Advances in Nutrition*, *14*(1), 190–210. https://doi.org/10.1016/j.advnut.2022.12.001

Velardo, S. (2015). The Nuances of Health Literacy, Nutrition Literacy, and Food Literacy. *Journal of Nutrition Education and Behavior*, *47*(4), 385-389.e1. https://doi.org/10.1016/j.jneb.2015.04.328

Velasco-Mondragon, E., Jimenez, A., Palladino-Davis, A. G., Dawn, D., & Escamilla-Cejudo, J. A. (2016). *Hispanic health in the USA: a scoping review of the literature | Public Health*

Reviews | Full Text. https://publichealthreviews.biomedcentral.com/articles/10.1186/s40985-016-0043-2

Wallace, P. M., Pomery, E. A., Latimer, A. E., Martinez, J. L., & Salovey, P. (2010). A Review of Acculturation Measures and Their Utility in Studies Promoting Latino Health. *Hispanic Journal of Behavioral Sciences*, *32*(1), 37–54. https://doi.org/10.1177/0739986309352341

Whittemore, R. (2007). Culturally competent interventions for Hispanic adults with type 2 diabetes: A systematic review. *Journal of Transcultural Nursing: Official Journal of the Transcultural Nursing Society*, *18*(2), 157–166. https://doi.org/10.1177/1043659606298615

Willgerodt, M. A. (2003). Using focus groups to develop culturally relevant instruments. *Western Journal of Nursing Research*, *25*(7), 798–814. https://doi.org/10.1177/0193945903256708

Wynia, M. K., & Osborn, C. Y. (2010). Health Literacy and Communication Quality in Health Care Organizations. *Journal of Health Communication*, *15*(sup2), 102–115. https://doi.org/10.1080/10810730.2010.499981