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Signature:

Katherine Hatfield

Date

Mommy and Me Nutrition: A curriculum for refugee women at the Mommy and Me Family Literacy Program

By

Katherine Hatfield MPH

Hubert Department of Global Health

Amy Webb-Girard, PhD Committee Chair

Jennifer Green Committee Member Mommy and Me Nutrition: A curriculum for refugee women at the Mommy and Me Family Literacy Program

By

Katherine Hatfield

Bachelor of Science in Nutritional Sciences & International Studies The Pennsylvania State University 2013

Thesis Committee Chair: Amy Webb-Girard, PhD

An abstract of A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health in Global Health 2015

Abstract

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By Katherine Hatfield

Food insecurity is an issue that many refugees face when resettling in the United States. This can have detrimental consequences on the health of this population, particularly on young children, who need adequate nutrition for proper physical and cognitive development. In Clarkston, a small city in DeKalb County, Georgia, and home to a large population of refugees, food insecurity is a prevalent issue. The Mommy and Me Family Literacy Program (MMFLP), a program in Clarkston that is run through the organization Friends of Refugees, offers English literacy classes to refugee women and their children under the age of five. To address food insecurity and poor nutritional status among the students at this school, the program director would like to incorporate nutrition classes into the ESL curriculum. This special studies project focuses on the development of a culturally appropriate nutrition curriculum for MMFLP that will address healthy eating in the United States, along with safe and affordable access to nutritious food in Clarkston. The curriculum is guided by empowerment theory, with the goal of empowering refugee women to make healthy decisions for themselves and their families. It consists of eight 30-minute lessons; the first four take place in the fall semester and focus on dietary diversity, while the second four are delivered in the spring semester, focusing on access to healthy food and overcoming barriers. Five of the eight lessons were piloted during the 2014-2015 school year, each of which have been revised accordingly. After revisions, a final product was created based on input from the students, classroom observations, and suggestions from MMFLP staff, along with Emory public health faculty. Future directions for this curriculum include: piloting the remaining lessons, improving and implementing evaluation measures, and writing grants for additional funding. Additionally, collaboration with other organizations working in Clarkston is necessary in order to reach a larger population of resettling refugees.

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Chapter 1: Introduction

Atlanta is home to one of the largest populations of refugees in the country, taking in over 2,000 refugees during the Federal Fiscal Year (FFY) 2014 (Georgia Refugee Community 2015). A large number of this population settles in Clarkston, a small city located in DeKalb County. Clarkston is known as "the Ellis Island of the South." In one square mile, there are over 60 different languages spoken by immigrants and refugees coming from more than 60 different countries (Mommy and Me Family Literacy n.d.).

Clarkston, Georgia happens to be located between food deserts, which are defined as lowincome areas where a large number of residents have low access to a large grocery store or supermarket (CDC 2012). The implications this has on the refugee community are huge, since they are a vulnerable population acclimating to a new environment, having left behind everything they knew in their home countries. With limited access to healthy food options, this population faces substantial problems with food insecurity, which highly affects the nutritional status of the children living in this area.

One barrier standing in the way of accessing healthier food options for refugees is the language barrier. Resettling in a new environment with different types of food, grocery shopping can be a daunting task when English is the dominant language spoken. Many resettlement agencies and volunteer organizations in the area offer English as a second language (ESL) classes or tutoring to help refugees better acclimate to the new environment.

The Mommy and Me Family Literacy Program (MMFLP), a program in Clarkston that is run through the non-profit organization Friends of Refugees, offers ESL classes for refugee women and childcare for children under the age of five. This organization's mission states that "the best way for a refugee mother to learn English is in a way that supports her as a mother and promotes the literacy and development of her children" (Mommy and Me Family Literacy n.d.). By incorporating nutrition education into their ESL curriculum, the mothers will gain an understanding of how they can support the development of their children through healthy eating habits.

Problem Statement

Contrary to the belief that immigrants resettling in developed countries experience an increased well-being, refugees often struggle to acclimate to the new environment, especially in terms of food and nutrition. This is sometimes due to disparities in income, lack of knowledge about U.S. groceries stores, and a general unfamiliarity with the new food environment (Hadley, Patil, and Nahayo 2010). Refugees entering the U.S. are supported for 90 days by select resettlement agencies, and are then expected to support themselves and their families while acclimating to the new environment (Friends of Refugees 2014). In Clarkston, there are non-profit organizations that continue to support these families after the 90-day period.

The organizers of MMFLP have noticed that the nutritional quality of the lunches that the mothers in their ESL program pack for their children is suboptimal, and some children come without any food. To address this problem, they requested assistance to incorporate nutrition and healthy diets into the ESL program. This special studies project focuses on the development of a culturally appropriate nutrition curriculum for MMFLP that will address healthy eating, along with safe and affordable access to nutritious food in Clarkston.

Purpose Statement

The purpose of this Masters' thesis is to create a nutrition curriculum for the Mommy and Me Family Literacy Program that will address nutrition and food security issues seen among the mothers and children that attend MMFLP ESL classes and day school.

<u>Objectives</u>

- 1. Explore the food environment in Clarkston, GA and identify problems in accessing healthy food.
- 2. Use these findings to inform the development of a nutrition curriculum for refugee mothers at the Mommy and Me Family Literacy Program.
- 3. Pilot the curriculum in the Mommy and Me Family Literacy Program.

Significance

This project aims to empower refugee women in Clarkston to make healthier food choices drawing on the resources available in their community. When refugees arrive in the United States, they have to adjust to a new food environment. This means that they may face significant knowledge, financial, and structural barriers to providing their families a nutritionally adequate diet using the resources available to them. For this reason, it is important for organizations providing services to this population to an educational approach that empowers families to identify and provide healthy foods in the U.S context.

One goal of this project is to create a sustainable nutrition program that can be fully incorporated into MMFLP. A short-term goal of this project is to facilitate MMFLP receiving more funding to expand the nutrition program to include healthy snack options in the children's classes. By implementing evaluation methods, the success of the curriculum can be measured, which will provide MMFLP with data to use when applying for grants.

Another goal of this project is to create a program that can be used widely among organizations in Clarkston and other communities that work with refugees. There is currently no nutrition curriculum specifically designed for refugees in Clarkston, but organizations servicing this area have expressed interest in creating one¹. This curriculum specifically targets mothers and children at MMFLP, but it could be modified to reach all refugee mothers and children in Clarkston. Expanding this curriculum could result in healthier diets among refugee families arriving in Clarkston.

¹ This information is gathered from key informant interviews with people who work and live in the city of Clarkston

Chapter 2: Comprehensive Review of the Literature

To develop a nutrition curriculum for resettling refugee women in Clarkston, it is necessary to first understand the context within which the curriculum will be implemented, along with the methods and theories for curriculum development used in similar settings for similar purpose. This section reviews the literature on food insecurity among U.S. refugees and explores methods for integrating nutrition education and English literacy classes. Lastly empowerment theory is discussed as a pedagogical foundation for nutrition education targeted to refugees.

Food Insecurity

In 1996, the World Food Summit defined food security as the time "when all people at all times have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO 2008). This definition includes four dimensions: physical availability of food, economic and physical access to food, food utilization, and stability of other three dimensions over time (FAO 2008). In other words, for a population to be considered food secure, they must have consistent access to food that is nutritionally adequate and culturally appropriate, and they must be able to utilize the food in a way that sufficient energy and nutrient intake results.

Food insecurity can be either acute or chronic. Acute food insecurity usually occurs when there is a sudden inability to produce or access an adequate food supply. This may happen as a result of fluctuating food availability, including seasonal variations and domestic food production, or from changing food prices and unstable household income (FAO 2008). Conversely, chronic food insecurity occurs when people cannot access minimum food requirements for an extended length of time. This is usually the result of poverty or the inability to access adequate resources (FAO 2008).

In 2013, roughly 14.3% of households in the United States were food insecure for at least part

of the year (Coleman-Jensen, Gregory, and Singh 2014); the estimated prevalence of 'very low food security' was 5.6%. 'Very low food insecurity' occurs when "the food intake of some household members was reduced and normal eating patterns were disrupted at times during the year due to limited resources" (Coleman-Jensen, Gregory, and Singh 2014). In Georgia, 16.6% of households reported food insecurity, of which 6.0% reported very low food security. In 2013, the most common conditions for classification of very low food security were: 1. Being worried that their food would not last until they could get more money to buy more; 2. The food they bought did not last and they couldn't afford to buy more; and 3. Adults had to reduce meal sizes or skip meals because there was not enough money to buy more food (Coleman-Jensen, Gregory, and Singh 2014). The data also shows the demographics of the populations most affected by food insecurity. Among households with children under the age of six, 20.9% reported food insecurity, and this number was higher in households with single parents. Additionally, 34.8% of low-income households with incomes below 185% of the poverty threshold reported food insecurity (Coleman-Jensen, Gregory, and Singh 2014).

Chronic food insecurity adversely affects the health of those who endure it. The negative health effects are independent of variables such as poverty, race, and education. These variables may be associated with food insecurity, however, the effects seen are directly related to low or inadequate access to food (Olson 1999). Among children, studies have shown higher prevalence of anemia, lower nutrient intakes, cognitive impairments, and higher probability of mental health issues and behavioral problems (Gunderson 2013). Adults are at risk for the mentioned adverse health outcomes, in addition to an increased risk for chronic diseases such as type 2 diabetes (Gunderson 2013, Laraia 2013). Food insecure households typically rely on inexpensive, energy dense foods as their main source of calories, which is one reason for the increased risk of chronic diseases (Laraia 2013). Other complex factors, such as sporadic eating patterns and chronic stress, may also influence metabolism and visceral fat accumulation (Laraia 2013). Women are a particular population of concern in regards to health

outcomes associated with food insecurity. Many studies have shown adverse pregnancy outcomes, such as low birth weight and gestational diabetes (Ivers and Cullen 2011). Additionally, food insecurity has been associated with an increased risk of birth defects (Gunderson 2013, Ivers and Cullen 2011). Overall, food insecurity greatly influences the health status of all individuals affected, with women and children being vulnerable populations in terms of nutritional status and chronic disease.

Food Insecurity among U.S. Refugees

According to the United Nations High Commissioner for Refugees (UNHCR), a refugee is someone who "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country" (UNHCR 2014). In 2012, the U.S. admitted 58,179 refugees, primarily from Bhutan, Burma, and Iraq (Martin and Yankay 2013). During this year, 2,516 refugees (4.3%) resettled in the state of Georgia (Martin and Yankay 2013).

Many refugees face food insecurity when resettling in the United States. This can have detrimental consequences on the health of this population, particularly on young children, who need adequate nutrition for proper physical and cognitive development. Many people would assume that refugees resettling in developed countries, such as the U.S., experience an increased well-being. This is not always the case, however, due to disparities in income and lack of knowledge about shopping and cooking in the new environment (Hadley, Patil, and Nahayo 2010). Refugees entering the U.S. are supported for 90 days by private resettlement agencies which provide services for food assistance, housing, clothing, employment, and medical care follow-up (Refugee Council USA). After this 90-day period, the refugees must find a way to support themselves and their families while acclimating to the new environment (Friends of Refugees 2014). In this regard, food security becomes an issue because

many refugees will not find jobs that adequately support their families' financial needs. This makes grocery shopping a burden, often resulting in high consumption of cheap, highly processed foods.

In 2010, a study of 281 refugees in the U.S. found that 77% of the participants answered 'yes' to at least one question on the food insecurity scale (Hadley, Patil, and Nahayo 2010). The study also found that refugees who had difficulty speaking English and who had trouble navigating the food environment were more likely to experience food insecurity (Hadley, Patil, and Nahayo 2010). Prior to this, a study done on Liberian refugee women in 2006 showed that, regardless of the amount of time living in the U.S., those women who reported difficulties navigating the U.S. food system experienced greater food insecurity (Hadley and Sellen 2006). Both studies also reported that income and education levels were associated with household food insecurity.

These studies show that entering a new country and learning a new food system has a great impact on household food security among refugee populations. Along with this, refugees face an absence of social safety networks when they arrive in this country. In most cases, they leave behind their social support systems and must create new networks upon arriving to their new community. These social support systems are referred to as social capital, and is a critical issue when considering mechanisms for addressing food insecurity among vulnerable populations (Martin et al. 2004). For this reason, it is important to develop and deliver this curriculum in a way that will build social capital among the participants, while learning how to feed their families a nutritionally balanced diet in the U.S in a safe and affordable way.

English as a Second Language

Refugees resettling in the United States face food insecurity for many reasons, including lowincome, difficulty finding employment, cultural barriers, and limited knowledge of the English language (Gunnell et al. 2014). The language barrier makes it difficult to reach the population even when nutrition education resources are provided. A study done in central North Carolina showed a specific need for cultural adaptation of nutrition and health resources for new immigrants (Morrison 2007). The study highlighted the limited development of existing health services to the immigrant population, especially in terms of low English literacy groups. While many programs around the country provide nutrition and health education to vulnerable populations, there are very few of these programs that also address food insecurity and low English literacy. Because these two topics are interrelated, it is important to incorporate English as a second language (ESL) methods into nutrition and health educations.

Little research exists on the incorporation of nutrition education in ESL classes for resettling refugee in the U.S. The programs that do exist, however, have proven to be very effective. A program called Healthy Eating for Life (HE4L) is an ESL curriculum that was created with the intention of simultaneously teaching the English language and health literacy, in order to promote healthy eating among immigrants in the United States (Martinez 2013). The main goal of this program is to reduce cancer health disparities seen among immigrants in the U.S., since they are typically medically underserved. To achieve this goal, the curriculum provides adult ESL students with English literacy skills specific to maintaining a healthy diet and lifestyle, helps them develop their planning skills to make healthy choices and manage barriers, and encourages the use of healthy aspects from multiple cultures (Martinez 2013). Students participating in the pilot of this program showed an increase in their knowledge of a healthy diet, fruit and vegetable consumption, and adult literacy scores using statewide standardized tests in reading and listening (Martinez 2013, Duncan 2013).

Another program that incorporates nutrition education classes into ESL classes specifically targets resettling refugees (Gunnell 2012). This program focuses on healthy eating with a limited budget, using ESL teachers and nutrition education assistants (NEAs) from the Supplemental Nutrition Assistance Program (SNAP) (Gunnell 2012). Classes were taught at a work-site training center for

resettling refugees, and they addressed three areas that influence food insecurity in this population: language, employment, and nutrition education (Gunnell 2014). This curriculum used nutrition concepts to increase English language skills, using pictures, tastings, and cooking demonstrations to overcome language barriers (Gunnell 2014). Since the students were refugees coming from seventeen different countries, the lessons focused on common barriers to healthy eating that result from acculturation, such as unfamiliar foods and packaged convenience foods with high amounts of fat and refined sugar (Gunnell 2014). The results of the program were increased English language skills, which led to decreased contributors of food insecurity (Gunnell 2014). This was because the participants learned about nutrition in a context where they were also learning English, which is one of the main barriers to accessing healthy food among immigrant populations. As a result, improving English language skills helped the participants learn about healthy eating in the U.S. context, while decreasing the language barrier helped to improve their access to food (Gunnell 2014).

The results of these studies show that many beneficial outcomes may result from the integration of ESL classes and nutrition education. Both programs recorded high attendance rates, indicating that ESL classrooms are a good setting for health literacy classes because of the students' high motivation to attend class (Martinez 2013, Gunnell 2014). Each of these programs has positive qualities that can help to develop a curriculum specifically addressing nutrition and food security among resettling refugees in an ESL classroom. There are very few programs like these currently in the U.S., so it is necessary to continue building and expanding them in order to reach the large immigrant population in this country.

Empowerment Theory

When designing a nutrition curriculum, it is important to consider not only the lesson contents, but also the delivery method. Resettling refugees are a vulnerable population, as many have come from traumatic events and experiences. Food and nutrition can be a sensitive topic among this group. Sometimes this is because they have experienced a severe lack of food. Other times, the sensitivity comes from feelings of control, where they feel comfort in the fact that food is one of the few things they have control over. Whatever the reason may be, it is important to keep this in mind when developing a nutrition curriculum for resettling refugees (Hadley and Sellen 2006). Lessons should focus on empowering the women to choose healthy foods for their families, rather than teaching them what they should and should not eat. Concepts of empowerment theory will guide the development and delivery of this nutrition curriculum.

Empowerment theory is based on the "process by which people gain control over their lives, democratic participation in the life of their community, and a critical understanding of their environment" (Zimmerman and Rappaport 1988). It focuses on strengths rather than weaknesses, and it emphasizes competence of the material being learned (Perkins and Zimmerman 1995). To empower an individual or a community is to enlighten them to their own strengths and abilities.

The goal of empowerment is not to teach new information or promote specific behaviors, but to support people in finding what is best for them (Kent 1988). For example, when using empowerment theory to teach about healthy eating habits, the goal is not to teach new information about which foods are or are not healthy, but rather to support the students in accessing healthy foods to feed their families. The key is to facilitate rather than to teach (Kent 1988). Instead of planning a lesson to teach new concepts, facilitators should be ready to learn from the students and further develop their curriculum from what their students already know. It is important that facilitators understand their students' perceptions of the problems, establish connections to potential solutions within the community, and participate in raising their awareness to overcome any barriers (Shuftan 1982).

Using empowerment theory in collaborative partnerships requires a three-dimensional model, which focuses on personal factors, environmental factors, and empowerment capacity (Fawcett et al. 1995). Personal factors refers to individual leadership capabilities, such as the person's knowledge of the community, awareness of problems and capacities for change, and personal skills and abilities. Environmental factors refers to barriers or support from the community. Empowerment capacity is determined by the community's capacity to be empowered through a particular program, including financial capability, program policies, and related outcomes (Fawcett et al. 1995). This model can be demonstrated as a cyclic path that involves: collaborative planning; community action; community change; community capacity and outcomes; and adaptation, renewal, and institutionalization (Fawcett et al. 1995). This collaborative partnership approach is a way to reduce health inequalities and for communities to empower themselves (Kasmel n.d.). A capacity building process helps to substantiate community members' experiential knowledge (Kasmel n.d.). Health educators should be aware of the stage that the community is in on the path of empowerment development.

People feel powerless when they cannot cope with the physical and social demands of their surroundings (Conger and Kanungo 1998), which is why resettling refugees are especially vulnerable, feeling a lack of control living in a new environment where they do not speak the language or practice the cultural norms. In order to teach a curriculum on healthy feeding practices to a group of resettling refugee women, the development of the curriculum must incorporate empowerment theory. It is human nature to have a need for power to control and cope with life events (Conger and Kanungo 1998). In other words, there is an intrinsic need for self-efficacy. Refugees are a population that have come across obstacles that hinder the capability for this self-determination. In the process of resettling, they enter an unknown area and must adapt to a new culture in a very short amount of time. They enter a new food environment which they are likely unfamiliar with. In terms of nutrition, this means that they may not make the best choices when choosing foods to feed their families. This is not due to a lack of knowledge of healthy eating, but instead is because of not being in control of their new food environment. In order to improve eating habits in this population, it is important to teach nutrition in a way that empowers the women to choose healthy foods. This method of teaching will result in better

achievement of improving nutritional status because the facilitator will be able to understand the problem better, thus constructing the curriculum to specifically address the main barriers to feeding their families a healthy diet.

Project Relevance

At MMFLP, the organizers have requested a nutrition curriculum that will address the poor nutritional quality of lunches that the mothers pack for their children, and the adverse health effects of the children as observed by the classroom teachers and volunteers. These nutrition classes will be integrated into the mothers' ESL curriculum, using techniques from the existing programs referenced in this literature review. Empowerment theory will guide the curriculum to help the students gain control of their new food environment in Clarkston. There will also be a special focus on forming social bonds and support networks, in order to address the issues with social capital seen in refugee populations. In summary, the literature reviewed on ESL incorporation and empowerment theory will greatly influence the development of this curriculum in order to create a culturally relevant and effective program that will help the mothers access nutritious foods.

Formative Research

Prior to beginning the development of the nutrition curriculum, a team of three Emory students conducted research to explore the food environment in Clarkston. We performed nine market surveys² to assess the cost, availability, and accessibility of food in the area. The survey was developed from CARE's Nutrition Formative Research Training Manual (CARE 2013). We used purposive sampling to choose only markets within the Clarkston city limits and that made up a representative sample of different types of stores (2 full grocery stores, 5 small markets, and 2 convenience stores). We asked store managers questions about the hours of operation, restocking of food, major selling items, and clientele demographics. After asking these questions, we looked around the store and recorded prices of foods from 11 categories (fresh fruit; fresh vegetables; dried vegetables and legumes; grains, cereals and breads; roots and tubers; fish, shellfish, snails and seafood; meats and poultry; milk products; basic purchases; snacks and junk food; other items of interest). This information was then recorded in an Access database and was used to determine what the most commonly purchased foods are, along with the price ranges of these foods.

Another step in this formative research was conducting in-depth interviews to learn about food availability and dietary preferences of our target population. Six interviews were conducted (three store owners, two key informants, and one community member), four of which were recorded and transcribed. Although the data were not analyzed using qualitative methods, these interviews provided information on access to fresh produce, use of the local food pantry, and the current dietary habits and practices among refugees in the Clarkston community.

² Appendix A

IRB Approval

A proposal was submitted to the Emory IRB before conducting any research. The IRB determined that the project was exempt from IRB review because the project did not involve research of human subjects or clinical investigation.

Curriculum Development

Using this research, we selected four main themes for which to base the curriculum: dietary diversity, infant feeding, access to food, and safety. The original plan was to teach two lessons per theme, however, this plan changed after piloting the first lesson. We decided to drop 'infant feeding' to focus more on young child 'dietary diversity', and 'safety' became a part of 'access to food.' This condensed the curriculum into two main themes of 'dietary diversity' and 'access to food', each consisting of four lessons. We planned to teach 'dietary diversity' in the fall semester, and 'access to food' would be taught in the spring. The chosen method for discussing nutrition was the "Go, Grow, Glow" (GGG) model (University of California Cooperative Extension 2013). This is a model frequently used for low-literacy groups and children, which breaks down food into three simple groups, and is flexible enough to use for any cultural context.

The Centers for Disease Control and Prevention (CDC) has developed a list of key characteristics of an effective health education curriculum, some of which include: sets clear health goals and objectives; is research-based and theory-driven; addresses attitudes and beliefs; builds personal competence and self-efficacy; provides functional health knowledge; incorporates culturally inclusive teaching methods (CDC 2015). The Mommy and Me Nutrition curriculum achieves these through various mechanisms. First, each lesson has a clear goal and set of objectives related to the behavioral outcomes. The lessons were developed based on empowerment theory, and includes experiential activities that promote self-efficacy. Formative research of the Clarkston food environment also guided the development of the curriculum, as described earlier in this chapter. Finally, the curriculum addresses the cultural context by utilizing teaching methods to address the diverse backgrounds of the class.

Another goal of the curriculum was to reinforce the existing Mommy and Me ESL curriculum. Rather than using the program as a forum to implement a nutrition curriculum, the lessons were designed to incorporate nutrition education into an ESL learning style. Each lesson teaches new English words to the mothers and promotes learning about U.S. culture through food and nutrition. Activities involving participation through writing and talking encourage the English learning environment while promoting nutrition education.

Curriculum Pilot-Testing

The first lesson was pilot-tested before the others were developed. This was to gauge the women's understanding of the GGG method, and to ensure that the rest of the lessons would meet the needs specific to the audience and the teaching environment. After piloting the first lesson, the plan changed to reinforce dietary diversity through GGG throughout the fall semester. Doing so would allow the lessons to focus more on the GGG concept through a variety of activities and allow for reinforcement of the GGG concept. In the spring semester, the new plan was to shift the focus to overcoming barriers to accessing food in Clarkston, while maintaining the GGG model as a recurring theme.

The evaluation plan used foods packed in the children's lunches as an indicator. Once per week, mothers would anonymously record what they packed for their child's lunch that day. This evaluation strategy served not only to monitor change in diet patterns and types of food consumed, but also to reinforce English language skills. A second part of the evaluation plan was to use a volunteer in the children's classes to record what they saw in the lunches that day. To maintain anonymity, we did not plan to match these data, but would look at them separately and use the observational data as a means of verification. We planned to compare the quality of the lunches at the end of each semester with that at the beginning, and from the beginning to the end of the academic year. This did not go according to the plan, but in the future, the structure of this evaluation plan should be considered.

Chapter 4: Results

Curriculum

The final version of the curriculum includes eight lessons, each 30 minutes in length. The first four lessons take place in the fall semester, and the last four are taught in the spring. The following is an overview of each lesson:

- Lesson 1: The Basics of "Go, Grow, Glow" This lesson introduces the GGG model which will be used throughout the curriculum. During the session, mothers engage in naming GGG foods using flashcards as a whole class, and they work individually to identify pictures of foods based on the GGG category.
- Lesson 2: "Go, Grow, Glow" in Beverages This lesson applies the GGG model to drinks, specifically encouraging mothers to identify healthy and low cost alternatives to sugar-sweetened beverages commonly seen at MMFLP. The lesson includes a demonstration of diluting 100% juice with water and a taste testing of water naturally flavored with fruit.
- Lesson 3: "Go, Grow, Glow" in Snacking This lesson applies the GGG model to snacks, and engages mothers in identifying healthy snacks they could prepare with their children. Mothers are given a recipe which they read aloud as a group, reinforcing English learning. The facilitator demonstrates the preparation of a smoothie, which the mothers and children taste together. Throughout the facilitator's guide, alternative recipes are provided for adaptation to diet norms of learners and to other contexts
- Lesson 4: "Go, Grow, Glow" Recipe Makeover This lesson engages mothers in an activity showing how a commonly consumed food in the community (i.e., instant noodles) can be enhanced with additional ingredients to create a meal that meets the GGG model. The mothers prepare a meal during the session, which they taste with their children at the end of the session. They also write down the recipe that they prepare to reinforce English learning.

- Lesson 5: Access to Healthy Food in Clarkston This lesson introduces the concept of barriers, and engages the mothers to identify barriers and solutions to accessing healthy food. A map of the community is used to facilitate discussion about safe access to food. The mothers engage in the conversation by drawing on the map to show how they commute from home to the grocery store. A worksheet is also used as an activity for the mothers to find "grocery shopping buddies," since walking alone to the grocery store can be a barrier to accessing food.
- Lesson 6: Planning a Grocery Budget This lesson introduces the concept of budgeting, and how it can be used to save money at the grocery store. The session provides mothers the opportunity to evaluate their food expenses and identify how they can make GGG purchases within a fixed budget.
- Lesson 7: Staying in Charge of Your Child's Diet This lesson tackles the barrier of saying "no" to children and empowers the women to be in charge of what their children eat.
 Facilitators and mothers act out scenes to demonstrate different scenarios they might find themselves in with their children, allowing the mothers to explore many ways of saying "no."
- Lesson 8: Navigating the Grocery Store This lesson introduces the concept of "shopping the perimeter." Women identify where GGG foods are typically located in the grocery store (i.e., around the outside of the store). Concepts from each of the preceding lessons are reinforced in this last lesson.

Another part of the curriculum created as a result of pilot testing is the "Food of the Week" activity. This is a separate portion of the curriculum that aims to provide a healthy snack for the children at Mommy and Me during their school day, and to expose the mothers and their children to new GGG foods. A two-sided worksheet contains a picture of the food for the children to color on one side, while on the other side is information about the food and a recipe for the mothers. This reinforces

the MMFLP strategy of mothers and children learning together. The recipe on the worksheet is the same recipe that will be used to prepare the snack for the children at school.

The "Food of the Week" component has been developed for five foods: carrots, bananas, zucchini, sweet potatoes, and green beans. Instructions in the curriculum handbook indicate that these are only example templates that allow modification to include any contextually relevant GGG food. In developing this section, it may be helpful to let the participants identify some foods that they would like to try and learn how to prepare for their families.

This portion of the curriculum has not yet been implemented, but is scheduled to begin pilot testing in April 2014. A full pilot test of this portion of the curriculum will start in the beginning of the school year, and will continue on a weekly basis as school is in session. It will be a complementary piece to the eight lessons that the mothers will participate in, and should act as a way to engage the children and mothers to learn about GGG foods together.

Implementation

The lessons took place during "assembly time" at MMFLP, which is the time when all three ESL class levels come together for a 30-minute presentation. The attendance consisted of about 30-50 women, depending on the day. Lessons 1 through 3 were piloted in the fall semester. The first lesson introduced the GGG model, and the following two lessons reinforced it while incorporating concepts of drinks and snacking. During Lesson 2, some confusion came about regarding juice and whether or not it can be considered a fruit. To resolve this, the facilitator emphasized that whole fruit is always better than juice. In response to this, the curriculum has been adapted to distinguish "juice drink" from "100% fruit juice."

In the spring semester, Lessons 5 and 8 were piloted. Lessons 6 and 7 were not taught during this semester because MMFLP had a booked schedule for spring assembly time. The reason for

piloting the first and last lessons was to effectively introduce and conclude the discussion on access to food in Clarkston. During Lesson 5, the word "barrier" was taught to the women. Upon realizing that this was a new word for them, the word became a theme for the semester. Maintaining the empowerment perspective, these last four lessons focus on overcoming the identified barriers. The activities engage the mothers in brainstorming and finding ways to decrease the barriers they encounter to accessing healthy food. Lesson 8 combined GGG concepts with the discussion on barriers in order to bring together and summarize the whole curriculum. The women seemed to recognize how the concepts relate to each other, as many of the women participated in the activities and demonstrated an understanding of the material.

Evaluation

The "What I Packed My Child for Lunch" evaluation worksheets were distributed and piloted during the fall semester. After three weeks, the English teachers were concerned that the women did not fully understand the directions, and therefore were not accurately recording the foods that they packed for their children. A new worksheet was created, along with a reference sheet listing several foods commonly seen in the children's lunches. We also explained that the purpose of the activity was for the mothers to practice writing and learn the English names of foods. After this change, the mothers had a better understanding of the activity, but there was still trouble getting all of the women to fill out the worksheet on a weekly basis. During the spring semester, the worksheets were not redistributed because this method of evaluation needed to be revised.

There were also no observations of the children's lunches recorded to use as data. If this method will be used in the future, an evaluation log should be created and a teacher or volunteer in the children's classroom should fill it out on a weekly basis.

Chapter 5: Discussion

Incorporating nutrition education into ESL classes was not an original idea, however the few programs that have used this strategy have shown promising outcomes, as seen in the two case studies mentioned in Chapter 2. The Mommy and Me Nutrition curriculum uses aspects of both programs, but also incorporates some different methodology. One major difference between Mommy and Me Nutrition and the HE4L program is that this curriculum incorporates nutrition into an already existing ESL curriculum, while HE4L was created to simultaneously teach ESL and healthy eating. The program by Sarah Gunnell implemented a nutrition curriculum at a work-site training center for resettling refugees, which is a similar setting to the Mommy and Me curriculum. A difference between Gunnell's program and mine is that she utilizes SNAP education. This is an approach that I considered when planning the lessons, but learned that the mothers receive SNAP information from other sources. The other two programs also had more in-depth evaluation systems. The HE4L program used statewide standardized test scores to assess literacy, along with 24-hour dietary recalls and nutritional knowledge assessments to evaluate dietary changes. Gunnell's program utilized grocery receipt collection to evaluate the participants' food consumption over the course of the curriculum. This method is one that I would recommend to incorporate in the Mommy and Me Nutrition evaluation system. This is an appropriate method to evaluate the effectiveness of the program while maintaining an empowering environment; activities could be planned around the grocery receipts that facilitate learning through this method. It is also a feasible strategy for classroom facilitators to manage. It is important to abstain from using evaluation methods that could be disempowering to the women, such as quizzes or oral assessments. In this case, the Mommy and Me Nutrition evaluation system will most benefit from adapting aspects of Gunnell's evaluation model using receipt collection.

Strengths and Limitations

Many strengths came about as an outcome of this project. First, including nutrition education in an ESL program was an effective way to teach because of the students' eagerness to learn new English words, which led to good participation in the class. Along with this, facilitating the lessons in a way that was encouraging and open to the perspectives of the women created an empowering environment. This was a unique aspect of the project because food and nutrition is such a cultural idea that varies from person to person, while nutritional science tends to be concrete in this country. Therefore, teaching this concept to such a culturally diverse audience was not an easy task, and not many programs have taken this on. Rather than teaching concrete ideas, the curriculum encouraged the women to explore "Go, Grow, Glow" foods and determine what works best for them.

The curriculum also addressed access to healthy food, which was another strength of this project. The concepts of nutrition and food security go hand-in-hand, but not many nutrition education programs address the barriers to accessing healthy food. This program allowed the mothers to explore the barriers they face in feeding their families GGG foods, and it included activities to help them find solutions to overcome these barriers.

Finally, implementing this curriculum at MMFLP allowed for mother-and-child learning time, which is an ideal setting to learn about food and nutrition. The children's snack time was perfect for teaching them about new foods, which was the purpose of the "Food of the Week" component. The children learned about different types of GGG foods in a safe and fun environment, and were given the opportunity to try the food in class. This also served as a healthy snack for the kids. At the same time, the mothers learned about this food and were able to bond with her children over this.

Along with these strengths, there were also some weaknesses associated with this project. As mentioned in the results section, the evaluation method did not go as planned. This could be due to the women not fully understanding the exercise, which would mean that better directions and facilitation

would be necessary in the future. Another problem with the evaluation system is that some women packed full lunches for their children, while others did not pack anything. It is possible that some of the families go home to eat lunch together while others let their kids eat at Mommy and Me. Further investigation of this issue is necessary, and in order to overcome this barrier, new evaluation techniques should be implemented. As mentioned earlier in this chapter, there are methods we can learn from existing programs that could help to improve the evaluation system. This is important because a good evaluation system will be critical to determine the effectiveness of the program and to apply for more funding.

Another limitation was the large class size. There were sometimes up to fifty women in the classroom, which made it very difficult to encourage participation from everyone. The more talkative women (and therefore the more advanced in English), were the first to participate, and it was difficult to encourage the quieter women to engage. Such a large class size may have been a discouraging environment for the women with lower English literacy. In the future, smaller class sizes consisting of 10-15 women would facilitate a more engaging learning environment with potentially greater impacts on learning.

Lastly, the length of time allotted for each lesson was a limitation. Thirty minutes was a limited amount of time to engage such a large group of women in the activities and facilitate learning. Some activities had to be cut short or assigned for homework during the pilot testing of the curriculum. There was no assessment of whether or not the women completed the homework, so this was not an effective method. In order to dive further into the topics and to ensure completion of all activities in class, lengthening the class time will be necessary. Overall, the main limitations of the curriculum were the evaluation system and the class size and length. Addressing these aspects of the curriculum is critical for the next pilot test of the program.

Recommendations

To continue this program at MMFLP, it will be necessary to fully pilot the curriculum throughout an entire school year. This will entail facilitating all eight lessons, redesigning an evaluation system that monitors the dietary changes among the women and children, and consistently implementing the "Food of the Week" component. We have submitted a proposal to the Allen Grant Foundation for funding to support implementation and evaluation of the curriculum in the 2015-2016 academic year. Along with this, any Emory student that takes on the continuation of the project is encouraged to apply for funding in support of MMFLP through additional sources. The more funding the program can get, the more opportunities there will be for expanding it.

An evaluation system will need to be set up in order to monitor the effectiveness of the program. If the worksheets tracking the children's lunches are properly administered on a weekly basis, it will be possible to qualitatively analyze this data. Along with this, either a teacher or a volunteer in the classroom should maintain a weekly record of the children's lunches. The record can be cross-referenced with the worksheets that the mothers fill out. Grocery receipt collection is an encouraged addition, as long as it is facilitated in a way that engages the mothers in some type of learning. The receipts can be quantitatively analyzed. This method will work in tandem with the worksheets and observations, which will help to understand what the children are eating and what foods the whole family can access. All of these methods serve the purpose of evaluating the program, but also encourage English learning through writing foods and analyzing receipts.

Lastly, for full implementation of the "Food of the Week" component, one of the women working or volunteering with the organization should be paid to prepare the food each week. Hiring one of the refugee women to do this will be empowering for her, and will help take some responsibility out of the hands of the curriculum facilitator. Additionally, this part of the curriculum will have a direct impact on the types of the foods the children are eating, because they will be offered Go, Grow, Glow foods every week at Mommy and Me.

In terms of expanding to a wider audience in Clarkston, some changes should occur in regards to the whole curriculum. A smaller class size, maybe 10-15 women, would be preferable in order to engage everyone in the class. Additionally, the class time should be longer. Thirty minutes is a very short time for a lesson, and it does not allow for much engagement or in-depth activities. Ideally, the lessons would last an hour; during the first thirty minutes, the mothers would learn one of the eight lessons while the children learn about the "Food of the Week." In the second half-hour, the mothers and children would come together to prepare the "Food of the Week" recipe. This structure would better achieve the "Mommy and Me" goal of learning together.

Another consideration for expanding to a wider audience in Clarkston is the ethnic makeup of the class. This curriculum was specifically developed around the participants at MMFLP, using the types of foods they commonly eat. Since Clarkston is a very diverse community, it is possible that targeting other audiences would make some of this curriculum culturally irrelevant. For this reason, it would be necessary to obtain information about the class makeup in order to adapt any worksheets, food examples, and wording of the lessons. Facilitators adapting to another population should research the food environment of the community and commonly eaten foods of the culture(s) by conducting market surveys and informal interviews with community members. Using the information gathered, pictures of food and recipes in the curriculum should be changed accordingly. Cultural relevance is key in this curriculum, so understanding the background of the audience is critical to successfully delivering these lessons.

Conclusion

This curriculum is unique because it maintains the ESL teaching nature while building in nutrition education through empowerment. This model is key to improving the nutrition of the refugee population in Clarkston. Many aspects of the curriculum need to be improved or adapted, such as the evaluation methodology. For this reason, more funding is necessary to continue piloting the program. Expanding to a wider audience in Clarkston is feasible and should be the next step after fully piloting the program at MMFLP. The long-term goal for this curriculum is to eventually reach a wide enough audience that it positively influences the nutrition and food security status of the refugee population in Clarkston.

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Appendix A: Market Survey Guide

Market ID:_____ Date:_____

Look for variations of food types ie. Is there 2%, 1% or fat free milk? What is the price of the most expensive and least expensive type and write them down in the comments section of that food item.(assuming linearity of price)

Take note of differences in selling unit sold (ie. pint, half-gallon, or gallon of milk and the differences in price); write them in the comment section of that food item

If there is no variation, note the price in the Normal Market Price section. If there is no difference in selling unit, note the price and unit in each section labeled for each variable.

Name of Item	Selling Unit(kilo, bunch, etc.)	Sale when surveyed Y/N	Price During Sale	Normal Market Price	Alternate/Store Brand Name	Alternate/Store Brand Price	Comments
F				resh Fruit	S		
1							
2							
3							
4							
5							
6							
Total Number	C 1100 1	C • • •		•			

Total Number of differing fruit items:_____

Name of Item	Selling Unit(kilo, bunch, etc.)	Sale when surveyed Y/N	Price During Sale	Normal Market Price	Alternate/Store Brand Name	Alternate/Store Brand Price	Comments
			Fr	esh Vegeta	ibles		
1							
2							
3							
4							
5							
6							
			Dried ve	getables ar	nd legumes		
1							
2							
3							
4							

5							
6							
	Grains, cereals, and breads						
1							
2							
3							
4							
5							
6							

 Total Number of Vegetable items:

 Total Number of Dried Veg and Legume items:

 Total Number of Grain items:

Name of Item	Selling Unit(kilo, bunch, etc.)	Sale when surveyed Y/N	Price During Sale	Normal Market Price	Alternate/Store Brand Name	Alternate/Store Brand Price	Comments
			Roc	ots and Tub	Ders		
1							
2							
3							
4							
5							
6							
	Fish, Shellfish, Snails and Seafood (include dried fish)						
1							
2							
3							
4							
5							
6							
	Meats and Poultry						
1							
2							
3							
4							
5							

6
Total Number of Root items:_____
Total Number of Seafood items:_____
Total Number of Meat/Poultry items:_____

Name of Item	Selling Unit(kilo, bunch, etc.)	Sale when surveyed Y/N	Price During Sale	Normal Market Price	Alternate/Store Brand Name	Alternate/Store Brand Price	Comments
		Milk Produc	cts (fresh,	tinned, pov	vdered, cheese, yogi	urt)	
1							
2							
3							
4							
5							
6							
		•	Ba	sic Purcha	ISES		
1.Sugar							
2.Salt (verify price for iodized and non-iodized)							
3.Cooking oil							
4.Other types of fat or oils (please list separately)							
5							
6							
7							
Total Number of Milk items: Total Number of Basic items:							

Selling Sale Price Normal Unit(kilo, when Alternate/Store Alternate/Store Market Name of Item During Comments bunch, surveyed Brand Name **Brand Price** Price Sale etc.) Y/N Snacks and Junk Food (biscuits, cookies, cakes, chips, sodas, juices, etc.) 1 2 3 4

5							
6							
	1	I	Other	items of i	nterest		
1.Baby bottles							
2							
3							
4							
5							
6							
7							
Total Number	Total Number Junk Food items: Total Number of other important items:						

Survey Questions:

- 1. What are the normal hours of operation?
- 2. How many Cashiers are present? How many are manned at one time?
- 3. Is there a MARTA bus stop nearby? What are the quardinents(Google map quardinents)?
- 4. When does the market normally restock?(in addition to frequency what time of day?)
- 5. What ethnicities are seen frequently in this market?
- 6. What the most commonly sold food items?
- 7. How often does the market have sales? What food items are the sales on?

Appendix B: Mommy and Me Nutrition Curriculum

MOMMY AND ME NUTRITION

A CURRICULUM FOR REFUGEE WOMEN AT THE MOMMY AND ME FAMILY LITERACY PROGRAM

Written by: Katie Hatfield MAY 2015

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Letter to the Facilitator

Dear Facilitator(s):

Thank you for being a part of the Mommy and Me Nutrition curriculum. Your role is very important in helping refugee women acclimate to the food environment in the United States. This curriculum is intended for refugee women and their children enrolled at the Mommy and Me Family Literacy Program in Clarkston, Georgia; however, it is possible to adapt it to other refugee or migrant populations across the country.

This curriculum was created by a Master of Public Health candidate as a special studies project in the Global Health Department at Rollins School of Public Health, Emory University in Atlanta, GA. The motivation for its creation was the need for nutrition education among a population of resettling refugee women and children enrolled in ESL classes at MMFLP, a program run through the non-profit organization Friends of Refugees in Clarkston, GA. The intention of the curriculum is not to teach the concept of healthy versus unhealthy foods, but rather to empower the women to make healthy choices for themselves and their families

This curriculum is designed for medium-level English language learners, but can easily be adapted for lower or higher levels. It is meant to be flexible and you are encouraged to adapt timing, materials, discussion points, and activities based on the needs of your population. Please listen to your participants and use their ideas to adapt the curriculum as you and your community partners see fit.

I wish you the most success in using the Mommy and Me Nutrition curriculum!

Sincerely,

Katherine Hatfield

Developer of the Mommy and Me Nutrition curriculum

Background

Introduction

The Mommy and Me Family Literacy Program (MMFLP), located in the middle of Clarkston, Georgia, offers ESL classes for refugee women and childcare for children under the age of five. This organization's mission states that "the best way for a refugee mother to learn English is in a way that supports her as a mother and promotes the literacy and development of her children." By incorporating nutrition education into their ESL curriculum, the mothers will gain an understanding of how they can support the development of their children through healthy eating habits.

The Mommy and Me Nutrition curriculum is specifically designed to teach the women about the U.S. food environment, since they come from many different countries around the world. Using empowerment theory, the lessons are facilitated in a way that uses the women's knowledge and current eating habits to discover new ways of eating and accessing healthy foods. The curriculum follows a model called "Go, Grow, Glow," which describes three basic food groups carbohydrates, protein, and fruits and vegetables. Each lesson incorporates this model and builds on it, replacing the term "healthy foods" with "Go, Grow, Glow foods."

At MMFLP, the nutrition lessons are done during the "assembly time," which is when the mothers from all three levels of English classes come together for a 30-minute lesson or presentation. The lessons incorporate a lot of pictures and group activities since the women have varying levels of English literacy. The activities are short and simple due to the short amount of time for each lesson. The lesson flow starts with the basics of "Go, Grow, Glow" and focuses on encouraging dietary diversity using this model. The second half of the lessons are more focused on

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accessing "Go, Grow, Glow" foods and overcoming barriers associated with this. The goals and objectives of this curriculum were created with the aspiration to improve the nutrition of the children at MMFLP by engaging the mothers in activities that will empower them to feed their children foods that are more nutritious.

Theoretical Framework

The Mommy and Me Nutrition curriculum is guided by empowerment theory, which is based on "the process by which people gain control over their lives, democratic participation in the life of their community, and a critical understanding of their environment" (Zimmerman and Rappaport 1988). The key of an empowerment-based curriculum is to facilitate rather than to teach (Kent 1988). The goal of the Mommy and Me Nutrition curriculum is not to teach new information about healthy versus unhealthy foods, but rather to support the mothers in discovering ways to access healthy foods to feed their children and families. The facilitator(s) of this curriculum should be ready to learn from their students and further develop the lessons based on what their students share in the class.

Community Context

This curriculum is specifically designed for the Mommy and Me Family Literacy Program in Clarkston, Georgia. The women at this school come from many different countries around the world, with the major ones being Burma, Bhutan, Somalia, Sudan, Iraq, Afghanistan, and Ethiopia. This curriculum has been created to be culturally relevant to this population. In order to adapt it to other cultures, some of the different example foods and recipes will need to be changed.

Much of the curriculum was created based on observations of the women and children in the school. Observing the classroom environment allowed me to understand how the women interact

with each other and the teacher, how the learn, and what their literacy level was. I was also able to make a note of the types of food the mothers packed for their children, and from that I was able to construct the lessons according to the foods typically consumed by this population. The same procedure should be done in order to adapt this curriculum to another community.

Curriculum Overview

Session	Session Goal	Competencies	Materials Needed
Pre-session Introduction Time Needed: 15 min	To introduce the curriculum and explain the purpose of the evaluation worksheets	1. Mothers will be able to list the foods that they packed for their child that day	 Manila folders (one for each mother) "What I Packed My Child for Lunch" Evaluation worksheets (Appendix A)
			- "What I Packed My Child for Lunch" Reference sheets (Appendix B)
1. The Basics of 'Go, Grow, Glow'	To outline the basic concept of eating a balanced diet using the 'Go, Grow, Glow' (GGG) method	1. Mothers will be able to identify 1 function of each Go, Grow, and Glow foods	- GGG Flashcards (Appendix C) - Dry-erase board & marker
Time Needed: 30 min		2. Mothers will be able to name 3 specific examples of each group	 2 loaves of bread (1 white, 1 whole wheat) - GGG Worksheets (Appendix D) Yellow, red, and green markers - Sectional Tupperware containers (1 per person)
2. 'Go, Grow, Glow' in Beverages	To emphasize healthier drink options for children using the GGG model	1. Mothers will be able to classify each drink as either "Go", "Grow", "Glow", or neither	- GGG Flashcards (Appendix C) - Dry-erase board & marker
Time Needed: 30 min		2. Mothers will be able to identify 2 reasons to substitute sugary drinks with water or milk	 1 bottle each of: soda, bright-colored drink, juice drink (fruit cocktail or other juice that is NOT 100% fruit), juice (100% fruit), milk
			- Glass of water - Pitcher of fruit-water (use 4 whole limes and 2 whole oranges) - Small paper cups

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3. 'Go, Grow, Glow' in Snacking Time Needed: 30 min	To explain the concept of healthy snacks using the GGG model	 Mothers will be able to classify each ingredient in the recipe as Go, Grow, or Glow Mothers will be able to identify other types of fruit and vegetables to use in a smoothie 	 Smoothie recipe handouts (Appendix E) Blender Smoothie ingredients: fresh spinach, a banana, frozen berries, milk Small paper cups
4. 'Go, Grow, Glow' Recipe Makeover Time Needed: 30 min	To demonstrate how to use the GGG model in any recipe	 Mothers will be able to classify each ingredient in the recipe as Go, Grow, or Glow Mothers will be able to write their own noodle recipe using "Go, Grow, Glow" 	 Instant noodles (such as Ramen) Ingredients to add: spices, vegetables, canned chicken, canned tuna, chickpeas Paper plates and utensils Serving utensils Meal planning worksheets (Appendix F)
5. Access to Healthy Food in Clarkston Time Needed: 30 min	To identify solutions to the barriers faced by the women in accessing GGG foods in Clarkston	 Mothers will be able to identify 1 solution for each barrier described in the lesson Mothers will obtain the contact information for at least 2 grocery shopping buddies 	 Map of Clarkston food environment (Appendix G) "Grocery Shopping Buddies" worksheets (Appendix H)
6. Planning a Grocery Budget Time Needed: 30 min	To practice writing a budget for a typical grocery shopping trip	1. Mothers will be able to create a budget for their next grocery shopping trip	- "Grocery Budget" worksheets (Appendix I) - Dry-erase board & marker

		I	I
7. Being in Charge of Your Child's DietTime Needed: 30 min	To empower the mothers to feed their children GGG foods by demonstrating how to stay in charge of what their children eat	 Mothers will be able to identify 3 different ways to stay in charge of what their children eat many times Mothers will be able to explain why it is important to encourage their children to try foods 	 Dry-erase board & marker Food for props: carrots, broccoli, candy, cookies
8. Navigating the Grocery Store	To demonstrate effective methods to navigate the grocery store	1. Mothers will be able to identify where produce is located in the grocery store	- "Navigating the Grocery Store" handouts (Appendix J)
Time Needed: 30 min		 Mothers will be able to explain the concept of "shopping the perimeter" 	 Junk food Flashcards (Appendix K) GGG Flashcards (Appendix C) Dry-erase board & marker
Food of the Week Curriculum Time Needed: 30 min each week	To provide a healthy snack alternative for the children's classes while exposing the children to new GGG foods	 Children will be able to try and become familiar with new Go, Grow, Glow foods Mothers will be able to learn new, simple recipes for Go, Grow, Glow foods 	 "Food of the Week" worksheets, printed double-sided Crayons Paper plates & plasticware See ingredients list for each "Food of the Week." Ingredients will vary each week.

Pre-session Introduction

Session Goal: To introduce the curriculum and explain the purpose of the evaluation worksheets.

Specific Objectives:

1. Mothers will be able to list the foods that they packed for their child that day.

Materials Needed:

- Manila folders (60 one for each mother)
- "What I Packed My Child for Lunch" Evaluation worksheets (Appendix A)
- "What I Packed My Child for Lunch" Reference sheets (Appendix B)

Budget:

- Manila folders (60) \$15
- Printing:
 - \circ Evaluation worksheets (60) \$2
 - Reference sheets (60) \$20

TOTAL: \$37

Schedule:

- Introduce yourself and the curriculum (5 min)
- Practice writing "What I Packed My Child for Lunch" worksheets (10 min)

FACILITATOR NOTES

At the beginning of the semester, take 15 minutes at the start of the mothers' ESL class to introduce yourself and the curriculum. You will be presenting the rest of the curriculum during assembly time, the women will be filling in these worksheets at the start of ESL class every week.

The purpose of the "What I Packed My Child for Lunch" worksheets is to evaluate any changes or improvements in the food that the mothers feed their children throughout the course of the curriculum. For the mothers, the purpose of the worksheets is to practice writing and to learn the English words for the foods they commonly eat. Make sure to emphasize to the mothers that this is an activity to be used for their benefit to learn new words and to practice writing. Explain that while you will be reading what they write, you will only be looking at them collectively, and not individually examining each person's folder. If they feel like they are being judged, not only does that go against the empowerment principle of this curriculum, but it could also produce poor quality evaluative data.

Facilitator Instructions

- Say: Good morning! My name is [facilitator name]. Before you start English class, I am going to tell you about a special class we will be having during "assembly time" this year. We are going to talk about food! The classes will involve cooking, tasting, and many more activities. Raise your hand if you like to cook.
- Ask someone who raises her hand: What do you like to cook?
- Repeat this for 3-5 other women that raise their hands.
- Say: Thank you for sharing. We will have more time to talk about food during "assembly time." To help you learn English words for different foods, every week when you come into class, you will write down what foods you packed your child for lunch that day.
- Show the class the "What I Packed My Child for Lunch" worksheet.
- Show the class a manila folder with the reference sheet attached to the inside cover.
- Say: Each of you will get a folder like this. On the inside, there is a paper that has the English names of some common foods. If you do not know a word and it is not on this sheet, ask your teacher and she will help you learn the word.
- Pass out manila folders to each mother.
- Say: *Please write your name on the tab of the folder*. (Show example)
- Say: Let's practice this worksheet. Take a few minutes to write down what you packed your child for lunch today. If you have any questions, please ask me or your teacher.
- Give the women about ten minutes to work on this.
- When they are done, ask for questions again.
- When there are no more questions, say: Thank you. I look forward to talking about food with you all this year!

Session 1: The Basics of "Go, Grow, Glow"

Session Goal: To outline the basic concept of eating a balanced diet using the 'Go, Grow, Glow' (GGG) method.

Specific Objectives:

1. Mothers will be able to identify 1 function of each Go, Grow, and Glow foods

2. Mothers will be able to name 3 specific examples of each group

Materials Needed:

- GGG Flashcards (Appendix C)
- Dry-erase board & marker
- 2 loaves of bread 1 white & 1 whole wheat
- GGG Worksheets (Appendix D)
- Yellow, red, and green markers
- Sectional Tupperware containers (1 per person)

Budget:

- Printing:
 - GGG worksheets (60) \$20
 - GGG Flashcards \$6
- Bread (2 loaves) \$5
- Sectional Tupperware containers (60) \$180 TOTAL: \$206

Schedule:

- Description of Go, Grow, Glow (7 min)
- Activity 1: GGG flashcards (5 min)
- Activity 2: GGG worksheet (10 min)
- Review (3 min)
- Distribute Tupperware lunch containers (5 min)

FACILITATOR NOTES

You may need to spend some extra time explaining and defining "Glow." This is a more abstract concept and may be difficult for them to understand.

Facilitator Instructions

Introduction to Go, Grow, Glow

- Ask: What do you think are good foods to feed our children?
 - Write the responses on the dry-erase board. Write some examples if needed, probing the discussion.
- Ask: Of these foods, what do you think is most important to give them energy?
 - Guide them towards carb-rich foods bread, noodles, potatoes, etc.
 - Circle these foods with the black marker
 - Say: These are "Go" foods.
 - On the dry-erase board, write the words "Whole Grain"
 - Ask: Can someone tell me what this means?
 - Say: The best "Go" foods are whole grain. This means brown rice, whole wheat bread, whole wheat pasta.
 - Show the 2 loaves of bread. Say: At the grocery store, look for "Go" foods that say "Whole Grain" on the package (point to the "Whole Grain" label on the whole wheat loaf of bread).
- Ask: Of these foods, what do you think is most important to help them grow?
 - Guide them towards protein-rich foods meat, eggs, dairy, beans, nuts, tofu, etc.
 - Circle these foods with the blue marker.
 - Say: These are "Grow" foods.
- Ask: Of these foods, what do you think is most important for their skin, hair, nails, eyes?
 - Guide them towards nutrient-rich foods fruits and veggies
 - Circle these foods with the green marker.
 - Say: These are "Glow" foods.
 - Say: To glow is to shine like a star. "Glow" foods make us shine they make us look healthy.

Activity 1: Flashcards

- On the dry-erase board, write "Go", "Grow", and "Glow" in big letters across the board
- Using the GGG flashcards, go through the pictures of foods and have them classify each as Go, Grow, or Glow
- Place each picture in the appropriate section on the board as they name each one
- Ask for 2 or 3 volunteers to describe a meal they would make using the pictures on the board. Guide them to use at least one food from each category.

Activity 2: GGG Worksheet

- Hand out GGG worksheets to all mothers
- After the women look over the worksheet, ask: What foods are not listed here that you and your family commonly eat?

This can be done for homework if time runs out

- After allowing for responses, say: Write these foods on the back of this sheet, and circle them the same way you will for the rest of this worksheet.
- Instruct them to circle all "Go" foods with a yellow marker, "Grow" foods with a red marker, and "Glow" foods with a green marker.
- Once they have all finished, review the worksheet.
- Ask: Does anyone have a question?
- Say: Keep this and use it when you make food for your family. This will help you remember which foods can go together to make a healthy meal.

Review

- Ask: What do "Go" foods do?
- Ask: What are 3 examples of "Go" foods? (Probe for whole grain examples)
- Ask: What do "Grow" foods do?
- Ask: What are 3 examples of "Grow" foods?
- Ask: What do "Glow" foods do?
- Ask: What are 3 examples of "Glow" foods?

Distribute Tupperware Lunchboxes

- Show mothers an example of the sectional Tupperware lunch containers
 - explain that it has 3 sections one for "Go" foods, one for "Grow" foods, and one for "Glow" foods
- Say: Use this container for your child's lunch. The sections will remind you to always include a "Go" food, a "Grow" food, and a "Glow" food.
- Distribute 1 container to each mother.

Session 2: "Go, Grow, Glow" in Beverages

Session Goal: To emphasize healthier drink options for children using the GGG model

Specific Objectives:

- 1. Mothers will be able to classify each drink as either "Go", "Grow", "Glow", or neither
- 2. Mothers will be able to identify two reasons to substitute sugary drinks with water or milk

Materials Needed:

- GGG flashcards
- Dry-erase board & marker
- 1 bottle each of: soda, bright-colored drink (found in Clarkston grocery stores), juice drink (fruit cocktail or other juice that is NOT 100% fruit), juice (100% fruit), milk
- Glass of water
- Pitcher of fruit-water
- Small paper cups

Budget:

- Drinks
 - Juice (2) \$3
 - Sprite \$1.50
 - Bright color drink \$1
 - Milk \$1.50
- Fruit-water
 - Limes (4) \$2
 - Oranges (2) \$2
- Small paper cups (100-pack) \$3 TOTAL: \$14

Schedule:

- Review Lesson 1 & introduce topic for Lesson 2 (5 min)
- Lesson on sugary drinks vs. water & milk (10 min)
- Activity 1: Demonstration of "juice water" (5 min)
- Activity 2: Tasting "fruit water" (5 min)
- Review (5 min)

For fruit-water:

Use 4 whole limes and 2 whole oranges. Cut limes and oranges in segments, leaving the peel on. Add all of the fruit to the pitcher of water. Prepare this the night before so that the fruit flavors the water.

FACILITATOR NOTES

Make sure to emphasize the difference between a juice drink and 100% juice. This may be confusing for the women if they assume that all juice is made from fruit, and therefore is considered a "Glow" food. With this concept, be sure to reiterate that 100% juice is the only kind that is considered "Glow," and that whole fruit is a much better option. Be sure to emphasize the effects on kids' teeth from consuming too many sugary drinks.

Facilitator Instructions

Before class starts, draw 3 pictures on the dry-erase board: draw a picture of a child running to represent "Go"; draw a picture of a child growing to represent "Grow"; draw a picture of a child with glowing hair and skin to represent "Glow".

Review Go, Grow, Glow

- Ask mothers for examples of meals they made for their family using the GGG model
- Point to the picture of a child running
 - Ask: What is this a picture of?
 - Ask: What foods give this child energy to run?
- Point to the picture of a child growing
 - Ask: What is this a picture of?
 - Ask: What foods help this child grow big and strong?
- Point to the picture of a child with glowing hair and skin
 - Ask: What is this a picture of?
 - Ask: What foods make this child glow?
- Go through GGG flashcards and ask for volunteers to place pictures of food with the appropriate drawing on the board

Lesson on Beverages

- Ask: What drinks do your children like to drink?
- Allow a couple moments for responses.
- Show mothers the bottle of soda
 - Ask: is this Go, Grow, or Glow?
- Answer: None of these! Soda is full of sugar and no nutrients.
- Show mothers the bottle of bright colored drink
 - Ask: is this Go, Grow, or Glow?
 - Answer: None of these! This drink is also full of sugar. Sugar is not Go, Grow, or Glow. Sugar slows us down. Sugar is bad for our body, our heart, and our teeth.
- Show mothers the bottle of juice cocktail
 - Ask: is this Go, Grow, or Glow?
 - Answer: None of these. But let's look at this other bottle of juice.
- Show mothers the bottle of 100% fruit juice
 - Ask: is this Go, Grow, or Glow?
 - Answer: This is Glow. If you give your children juice, always make sure the label says '100% fruit' like this one. But remember: whole fruit is always better than fruit juice because it fills your child's tummy up more and is better for their teeth.
- Show mothers the bottle of milk
 - Ask: is this Go, Grow, or Glow?

- Answer: Grow. Milk is protein. Milk makes us strong and helps us grow tall.
- Show mothers a glass of water
 - Ask: is this Go, Grow, or Glow?
 - Answer: all of these! Water is good. Our body needs water. When we are thirsty, we should drink water. Water is also less expensive and is easier to access because we can drink it straight from the tap (demonstrate what a "tap" is).
- Ask for volunteers to come up and throw away "bad" drinks (soda, bright-colored drink, and juice cocktail)

Activity 1: Making juice-water

- Ask: which drink do your kids like more juice or water? (Answer should be juice)
- Show mothers how to make "juice-water" for their kids. Pour a drop of juice (100% fruit) into the glass of water, so that it takes on the color.
- Say: Your children will like this because they will see the color and will taste the flavor of the juice, but will not drink all that sugar. This is also a cheaper option because it will make the juice last much longer. Try this at home!

Activity 2: Fruit-water tasting

- Say: Another way to give some flavor to water is by using fruit to naturally flavor the water. You can do this with any fruit that you like. Today we will try water flavored with lime and oranges.
- Pour the water into sampling cups and distribute to women.
- Ask: Who likes the water?
- Ask: Who will try this at home?
- Ask: What fruits would you like to try in the water?

Review

- Say: Let's review what we learned today.
- Ask: When our kids are thirsty, what is the best thing to drink?
- Ask: Why is milk better for us than juice, soda, and other sugary drinks?
- Ask: Why is water better for us than juice, soda, and other sugary drinks?
- Ask: If you buy juice, what should you look for on the label?
- Ask: What are 2 ways to help our kids drink water instead of juice?

Session 3: "Go, Grow, Glow" in Snacking

Session Goal: To explain the concept of healthy snacks using the GGG model

Specific Objectives:

- 1. Mothers will be able to classify each ingredient in the recipe as Go, Grow, or Glow
- 2. Mothers will be able to identify other types of fruit and vegetables to use in a smoothie

Materials Needed:

- Smoothie recipe handouts (Appendix E)
- Blender
- Smoothie ingredients:
 - 1 16-oz. bag fresh spinach
 - \circ 2-3 bananas
 - 1 16-oz. bag frozen berries
 - \circ 1 ½-gallon milk
- Small paper cups

Budget:

- Printing
 - Recipe handouts 60 copies \$3
- Smoothie ingredients (plan for 2 batches)
 - 1 16-oz. bag fresh spinach \$3
 - 1 bunch bananas \$2
 - 1 16-oz. bag frozen berries \$3
 - 1 ½-gallon milk \$2
- Small paper cups (100-pack) \$3

TOTAL: \$16

Schedule:

- Review Lesson 2 & introduce topic for Lesson 3 (10 min)
- Review recipe (5 min)
- Activity 1: Make a smoothie (10 min)
- Activity 2: Tasting (5 min)

FACILITATOR NOTES

Find out ahead of time if most of the women have a blender at home. If you find that blenders are not a common household appliance, you should facilitate this lesson using the "Fruit Parfait" recipe listed on the other half of the recipe handout (Appendix E).

Facilitator Instructions

Review Beverages

- Say: Last lesson we learned about drinks.
- Ask: Can someone tell me what drink is a "Grow" food?
 Answer: milk
- Ask: Can someone tell me what drink is all 3 Go, Grow, and Glow?
 Answer: water
- Ask: Can someone tell me which drinks we threw in the trash?
 - Answer: soda and the bright blue drink
- Ask: Can someone tell me what we did with the juice?
 - Answer: We added a drop of juice to a glass of water to give it color and flavor

Introduction to Snacking

- Say: Today we will talk about snacks. Can someone tell me what is a snack?
- Ask: What do your kids eat for a snack?
- Say: Today we are going to make a smoothie. A smoothie is a type of drink that you can make with lots of fruits and veggies. Has anyone tried a smoothie?
- Show blender. Ask: Does anyone have one of these? This is a blender, which we will use to make our smoothie today.
- Say (emphasize this point): Snacks don't have to be something you cook or prepare. A snack can be a piece of fruit, raw vegetables cut into strips, or a cup of plain yogurt with a spoonful of honey. But, if you have the time, it can be fun for you and your kids to prepare a snack together. If you don't have a blender, a fun recipe you can make is called a parfait (write the word 'parfait' on the dry-erase board). A parfait is a cup of fruit and yogurt in layers (sketch out a parfait on the dry-erase board, showing the layers of fruit and yogurt). There is a recipe for this on the same page as the smoothie recipe. Try this at home. Today, we have a blender, so we will make a smoothie.

Review Recipe

- Pass out copies of the recipe to each mother
- Say: Let's read the smoothie recipe together. (Ask for volunteers to read each ingredient. Address any new words that come up)
- Ask: Does this recipe contain "Go" foods? (no)
- Ask: Does this recipe contain "Grow" foods? (yes, milk)
- Ask: Does this recipe contain "Glow" foods? (yes, banana, berries, spinach)
- Ask: Who thinks they will like this smoothie?
- Ask: Who thinks their child will like this smoothie?

Activity 1: Prepare Smoothie

- Add ingredients to blender, explaining each step.
- Say: We are using frozen berries because they are not in season now. This means that they are not being grown here now. So, frozen berries will be cheaper than fresh berries at this time.
- Finish preparing the smoothie. Show the class the final product in the blender.
- Ask: Now, who thinks they will like this smoothie?
- Ask: Who thinks their child will like this smoothie?

Activity 2: Tasting

- Pour smoothie into small paper cups for each mother to try.
- Ask: Who likes this smoothie?
- Ask: Is anyone surprised that they like it?
- Ask: Whose kids will like the smoothie?
- Ask: Who thinks this is a good way to get your kids to eat more fruits and veggies?
- Ask: What other fruits and vegetables would you like to try in a smoothie?
- If possible, repeat tasting when kids come up for mommy/baby time. Encourage mothers to taste with their children, allowing them to bond over healthy snacking.

Session 4: "Go, Grow, Glow" Recipe Makeover

Session Goal: To demonstrate how to use the GGG model in any recipe

Specific Objectives:

- 1. Mothers will be able to classify each ingredient in the recipe as Go, Grow, or Glow
- 2. Mothers will be able to write their own noodle recipe using "Go, Grow, Glow"

Materials Needed:

- Instant noodles (such as Ramen) pre-cooked, ready to serve
- Ingredients to add: homemade spice mix, fresh or frozen vegetables (ex. fresh spinach, fresh tomatoes, frozen peas), canned chicken, canned tuna, chickpeas (canned or dried)
- Paper plates and utensils
- Serving utensils
- Meal planning worksheets (Appendix F)
- Dry-erase board & marker

Budget:

- Printing
 - Meal planning worksheets (60) \$3
- Ingredients
 - o Instant noodles (30 individual packages) \$15
 - Spices (salt, pepper, garlic powder, ground ginger) \$7
 - Fresh vegetables (16-oz. bag spinach, 4 whole tomatoes) \$5
 - Frozen vegetables (16-oz. bag peas) \$3
 - Canned chicken (4 6-oz. cans) \$4
 - Canned tuna (4 6-oz. cans) \$4
 - Chickpeas (15-oz. can) \$1
- Paper plates and utensils \$10 TOTAL: \$52

Schedule:

- Review Lesson 3 & introduce topic for Lesson 4 (5 min)
- Discussion on instant noodles (5 min)
- Activity 1: Build your own GGG lunch (15 min)
- Activity 2: Meal planning worksheet (5 min)

Suggestion for homemade spice mix:

1 tsp. salt, 1 T black pepper, 2 T garlic powder, 2 T ground ginger

FACILITATOR NOTES

These ingredients are just a guideline. Amend this recipe however you see fit for your students, based on the available food in the community. The main concept here is to show how to turn a commonly eaten food (instant noodles, in this case) can be turned into a full Go, Grow, Glow meal.

Facilitator Instructions

Review Snacking

- Say: Last lesson we learned about snacks.
- Ask: Can someone tell me what is a snack?
- Ask: What did we make as a snack?
- Ask: Did anyone try making a smoothie?
- If so, ask: What foods did you put in your smoothie? Did anyone in your family try it?
- If so, ask: Did they like it?

Introduction to Cooking

- Say: Today we are going to cook a meal. A full meal should contain at least one "go" food, one "grow" food, and one "glow" food.
- Say: We are going to make noodles for lunch today. We will do this using instant noodles and adding in protein and vegetables to make a complete "Go, Grow, Glow" meal.

Discussion

- Say: First, let's talk about instant noodles.
- Ask: How many times per week do you make instant noodles?
- Ask: Do you add anything to the noodles, such as vegetables, meat, or spices?
- If so, ask: What foods do you add?
- Ask: Do you use the whole seasoning packet? (Show seasoning packet)
- Ask: Are there other spices you use?
- Say: *Today we will not use the seasoning packet*. (Throw in trash)
- Say: This seasoning has too much sodium.
- Write the word "sodium" on the dry-erase board. Next to it, draw a picture of a salt shaker and write the word "salt."
- Say: *Too much sodium can hurt the heart*. *Instead, we will use our own spices*. (Show the spices to be used in the noodles)

Activity 1: Building a GGG meal

- Go through each ingredient on the table asking the mothers if it is a "go," "grow," or "glow" food.
- Say: These vegetables are all in season right now. This means that they were cheaper than other vegetables at the grocery store. You can also use frozen vegetables, like these peas that we will use today.
- Go through the spices, asking the mothers if they use each spice. Write the names of the spices on the dry-erase board to help them learn the names.
- Add the spices to the batch of noodles.

- Say: We will add a pinch of salt since we are not using the seasoning packet. A small amount like this will not hurt, and will give our food more flavor.
- Make a plate for yourself first, demonstrating the process. First take a small serving of noodles. Next, add some protein (choose either chicken, tuna, or beans). Finally, add in the vegetables. Show your plate so that all of the mothers can see.
- Instruct the women to come up one row at a time to make a plate for themselves.

Activity 2: Meal planning worksheet

• Once all of the women have filled their plates, pass out the meal planning worksheets.

This can be done for homework if time runs out

 Instruct the women to write down the recipe that they just created, following the instructions on the worksheet. Provide assistance with English words, using the dry-erase board as necessary.

Session 5: Access to Healthy Food in Clarkston

Session Goal: To identify solutions to the barriers faced by the women in accessing Go, Grow, Glow foods in Clarkston

Specific Objectives:

- 1. Mothers will be able to identify 1 solution for each barrier described in the lesson
- 2. Mothers will obtain the contact information for at least 2 grocery shopping buddies

Materials Needed:

- Map of Clarkston food environment (Appendix G)
- "Grocery Shopping Buddies" worksheets (Appendix H)

Budget:

- Printing
 - \circ Map of Clarkston (24" x 36") \$70
 - "Grocery Shopping Buddies" worksheets (60) \$3

TOTAL: \$73

Schedule:

- Review Lesson 4 & introduce topic for Lesson 5 (5 min)
- Discussion on barriers to accessing Go, Grow, Glow foods in Clarkston (5 min)
- Activity 1: Mapping the commute from home to the grocery store (10 min)
- Activity 2: Finding grocery shopping buddies (10 min)

FACILITATOR NOTES

This lesson is the transition from talking about Go, Grow, Glow concepts to discussing barriers to eating Go, Grow, Glow foods. Explain that this is the halfway point of the curriculum, and that the focus of the lessons will be changing. Allow some time for questions about everything that has been discussed up to this point.

Facilitator Instructions

Review Meal Planning

- Say: Last lesson we learned about making Go, Grow, Glow meals, and we made a meal using instant noodles and adding our own ingredients to it.
- Ask: What did we do with the seasoning packet?
 - Ask: Why did we throw it away?
- Ask: What did we add to the noodles to make it a Go, Grow, Glow meal?
- Ask: Did anyone try this at home?
 - If so, ask: What ingredients did you add? Did your family enjoy it?

Introduction to Accessing Food in Clarkston

• Say: So far, we have discussed the types of foods that are good for us. Sometimes, even though we know what is healthy, we do not eat those foods because it is hard to get them. Today, we are going to talk about barriers to eating food that is Go, Grow, Glow.

Discussion on Barriers

- Write the word 'barriers' on the dry-erase board. Say: *Does anyone know what this word means*?
 - Say: A barrier is something that gets in the way of what you want. It is like an object blocking the road.
- Ask: What are some of your families' barriers to eating Go, Grow, Glow foods?
- Allow time for the mothers to speak up and offer their own ideas. Use these probes to keep the conversation going:
 - Does the cost of fresh produce keep you from buying a lot of it?
 - \circ Are the foods that you ate in your home country sold here?
 - Do your children's preferences influence the foods you buy?
 - Is it difficult to get to and from the grocery store?
 - Are there times when it is not safe to go to the grocery store by yourself?
- Say: These barriers make it difficult to eat Go, Grow, Glow foods all the time. Can anyone think of some ways that you can overcome these barriers?
- Allow time for the mothers to offer their ideas.

Activity 1: Mapping the commute from home to the grocery store

- Referring to the map of Clarkston, say: Let's look at this map of Clarkston. How many people here do most of their grocery shopping at Thriftown?
- If most women raise their hand, continue with the activity. If not, keep asking about other stores until you find which store most of them do their grocery shopping. Ask about: Kroger, Walmart, DeKalb Market. If none of these, ask them where they do their shopping.
- Say: Can someone please volunteer to come up and draw the route you take from home to the grocery store?
 - After she draws the route, say: How many of you take this route to get to the store?

- Ask for more volunteers to draw different routes, using a different color for each one. For each route drawn, ask the mothers to raise their hands if they take that route to the grocery store.
- Say: It looks like many of you take the same route to get from your home to the grocery store. We can use this to overcome one of our barriers we discussed.
- Say: Since it is not always safe to go to the grocery store by ourselves, we can set up a buddy system. This means that you will find someone who lives near you, who you can call to go to grocery shopping together.

Activity 2: Finding grocery shopping buddies

- Pass out the "Grocery Shopping Buddies" worksheet to each mother.
- Say: Based on this map, find 2-3 women who take the same route as you to the grocery store. Exchange phone numbers with those women, and write them on this worksheet. Keep this paper in a place that you won't lose it—on your fridge, by your phone, or wherever you keep important phone numbers. These will be your grocery shopping buddies. If you ever need food but don't feel safe going alone, call these women so that you can all go shopping together.

Session 6: Planning a Grocery Budget

Session Goal: To practice writing a budget for a typical grocery shopping trip

Specific Objectives:

1. Mothers will be able to create a budget for their next grocery shopping trip

Materials Needed:

- "Grocery Budget" worksheets (Appendix I)
- Dry-erase board & marker

Budget:

Printing

"Grocery Budget" worksheets (60) - \$3
 TOTAL: \$3

Schedule:

- Review Lesson 5 & introduce Lesson 6 (5 min)
- Lesson on budget planning (10 min)
- Activity 1: Budget planning worksheet (10 min)
- Review (5 min)

Mothers will need a receipt from the grocery store. Communicate with the teachers to ask their students to bring in grocery receipts for this lesson.

FACILITATOR NOTES

This lesson will work best if the women bring in a receipt or two from their recent trips to the grocery store. Ask the English teachers to remind their students the day before this lesson to bring in their receipts.

Facilitator Instructions

Review Access to Food

- Say: Last lesson we learned about overcoming barriers to getting healthy food.
- Ask: What are some of the barriers that we discussed?
- Ask: What are some of the solutions that we discussed?
- Ask: Did anyone try any of these solutions?
- Ask: Did anyone go grocery shopping with their buddies?

Introduction to Budgeting

- Say: This week we are going to talk about another solution to one of the barriers. We are going to talk about budgeting. Write the word 'budget' on the dry-erase board.
- Ask: Does anyone know what a budget is?
 - Say: A budget is a plan for how we spend money. When we make a budget, we plan ahead for how much money we will spend on different things.
- Say: We can make a budget for anything that we spend money on. Today, we will make a budget for groceries.

Lesson on Budgeting

- Ask: Does anyone already make a budget?
 - If yes, ask: What do you make a budget for?
 - Say: I make a budget every month for my groceries. By making a budget, I set aside a certain amount of money to spend on good, nutritious foods. This way, when I go to the grocery store, I am not tempted to buy other foods because they are not part of my budget.
- On the dry-erase board, draw a chart to fill in as an example budget. In the left-hand column, write "Go," "Grow," "Glow," and "other" as separate rows. The right-hand column should have the heading "Total." There should be blank cells in the middle to write down specific foods.
- Say: Let's make a budget. Let's say that we spend \$50 per week at the grocery store. Write \$50 in the lower right-hand corner.
- Say: Of that \$50, I want to use \$10 on "Go" foods, \$15 on "Grow" foods, and \$20 on "Glow" foods. We will have \$5 left over to spend on "other" foods. Write these \$ amounts in the far-right "total" column.
- Say: I made up these amounts based on how I usually shop. When you create your budgets, you will use your receipts to decide how to divide the money you will spend.
- Say: Now, we can decide what foods from each category we will buy.
- Ask: Look at your receipts that you brought in today. Can someone tell me what "Go" foods they often buy?
 - \circ Ask: According to your receipt, how much did you spend on that item?
- Continue this for "Grow" and "Glow."

- Say: Now, we can decide what we will spend our extra \$5 on. Ask for a volunteer to suggest a food item for this slot.
- Say: Remember, this is just a grocery budget. We can make budgets for other items too, like clothes, bathroom products, etc. If time allows, ask for examples.

Activity 1: Planning a Grocery Budget

- Pass out the "Planning a Grocery Budget" worksheets.
- Say: Now that we have made a budget together, it's your turn to try it on your own. Take a look at your receipts that you brought in today. Use these as a guideline for deciding how much you will plan to spend on each type of food.
- Say: Work in small groups to make a budget for your next trip to the grocery store. Our example here is for a week, but you can make your budget however you like. If you go grocery shopping every day, make it for a day's worth of food. If you go every other day, make it for 2 days worth of food.
- Ask: Does anyone have questions?
- Give about 10 minutes for them to work on this. Circulate the room and answer any questions.
- After 10 minutes, say: It looks like you all have made some good budgets. I hope you will use this when you go grocery shopping. Making a budget really helps me, and I hope it will help you too.

Review

- Say: Let's review what we talked about today.
- Ask: Can someone tell me what is a budget?
- Ask: Can someone tell me why it is good to make a budget?
- Ask: What else can we make budgets for, other than groceries?
- Ask: Who is going to start making a budget for groceries?

Session 7: Being in Charge of Your Child's Diet

Session Goal: To empower the mothers to feed their children GGG foods by demonstrating how to stay in charge of what their children eat.

Specific Objectives:

- 1. Mothers will be able to identify 3 different ways to stay in charge of what their children eat
- 2. Mothers will be able to explain why it is important to encourage their children to try foods many times.

Materials Needed:

- Dry-erase board & marker
- Food for props (carrots, grapes, candy, cookies)

Budget:

- Food for props
 - Carrots \$1
 - Grapes \$2
 - Candy \$1
 - o Cookies \$1

TOTAL: \$5

Schedule:

- Review Lesson 6 & introduce topic for Lesson 7 (5 min)
- Demonstration: Skits of mother and child interaction (10 min)
- Activity 1: Mothers role-play (10 min)
- Review (5 min)

FACILITATOR NOTES

This lesson demonstrates an important concept that mothers should be comfortable being in charge of what their young children eat. Like the other lessons, it is important to facilitate this lesson in a way that is empowering, and that does not undermine their current mothering abilities.

Facilitator Instructions

Review Budgeting

- Say: The last two lessons we have talked about barriers. Can someone please tell me what is a barrier?
- Say: Last lesson we learned how to make a budget for groceries.
- Ask: Can someone tell me what is a budget?
- Ask: Can someone tell me why it is good to make a budget?
- Ask: Did anyone make a budget before going grocery shopping?
 - If so, ask: Did it help you save money for healthy foods?

Introduction to Being in Charge

- Say: Today we are going to talk about another barrier.
- Ask: Does anyone have trouble feeding their children GGG foods because they don't like them?
- Ask: Who has children that will not eat vegetables?
- Say: This is a common problem. Many children do not want to eat vegetables or other GGG foods.
- Say: Children's taste buds are constantly changing, making it easy for them to adapt to different tastes. So, your child may not like tomatoes one day, but after trying it another day, they might like it the next time.
- Say: For this reason, it is important to always encourage our kids to try foods many times.

Demonstration: Skits of mother and child interaction

• Say: We are going to act out a few scenes. I am the mother and [name of facilitator] is the child.

You will need a second facilitator for this!

Scene 1

- Mother: Ok [name of facilitator], try this piece of carrot.
- Child: takes a bite of carrot and says: I don't like carrots.
- Hold up a card that says "Next Week"
- Mother: [name of facilitator], try a carrot again. You might like it this time.
- Child: No, I don't like carrots.
- Mother: Please try it again.
- Child: takes a bite of carrot. *Mmm, I like carrots.*
- Say: This shows how kids' taste buds change. It is important to encourage our kids to try foods many times, because they might like something this week that they didn't like last week.
- Say: Now we will do another scene. I am still the mother and [name of facilitator] is still the child.

Scene 2

- Mother: Time for dinner. Today we are eating chicken, rice, and broccoli.
- Child: I don't like that. I want something else.
- Mother: No, the family eats together. We all eat the same thing.
- Child: Ok. But I don't want the broccoli.
- Mother: Try at least one piece of broccoli. If you still don't want it, that's ok, but you have to try it.
- Child: Ok.
- Say: This shows how to encourage kids to eat with the family, and try all of the foods on their plate. Making exceptions will promote bad habits. Eating a Go, Grow, Glow meal as a family will help your child eat more Go, Grow, Glow foods like fruits and veggies.
- Say: We have one more scene to do. Imagine that we are now in the grocery store.

Scene 3

- Child: (pointing to candy) I want that.
- Mother: No, no candy today. Let's get some fruit instead.
- Child: No, I don't want fruit. I want candy.
- Mother: No, but you can pick out any fruit that you want.
- Child: Ok, these (points to grapes).
- Mother: Ok we'll get grapes today.
- Say: Sometimes it's hard to say to our children's requests at the grocery store. Letting them feel like they get to do something special by choosing the fruit or vegetable to buy that day is a good distraction from the candy.
- Say: It's important to remember that there will be less of a battle around food with your children if you don't keep food like candy around the house. If the kids don't see it, they won't ask for it. If they see it at the grocery store, they might ask for it then. Try to say "no" and distract them. Remember that you are the mommy and you can say "no" to your children's requests.

Activity 1: Role Playing

- Say: Ok, now it's your turn to act out a scene. I am going to be the child and one of you will be the mommy. Can I have a volunteer please?
- Say: Thank you for volunteering. Let's pretend that we are in the grocery store.
- Act out a scene similar to the one above. Start out by saying: *Mommy I am hungry. Can we get these cookies for a snack?* Let the mother answer, and go along with her responses by following the guide from the previous 3 scenes.
- Say: That was great. Thank you, [name of mother], for that performance.

Review

- Say: Let's review what we have discussed today.
- Ask: Why is it important to encourage children to try foods many times?
- Ask: What are some ways to stay in charge of what your child eats?
- Say: Remember, you are the mommy, and you can always say "no"!

Session 8: Navigating the Grocery Store

Session Goal: To demonstrate effective methods to navigate the grocery store

Specific Objectives:

- 1. Mothers will be able to identify where produce is located in the grocery store
- 2. Mothers will be able to explain the concept of "shopping the perimeter"

Materials Needed:

- GGG Flashcards (Appendix C)
- Junk food Flashcards (Appendix K)
- Dry-erase board & marker
- "Navigating the Grocery Store" worksheets (Appendix J)

Budget:

- Printing
 - \circ "Navigating the Grocery Store" worksheets (60) \$20
 - Junk food Flashcards \$6

TOTAL: \$26

Schedule:

- Review Lesson 7 & introduce topic for Lesson 8 (5 min)
- Activity 1: Where is it found in the store? (5 min)
- Discussion on "shopping the perimeter" (5 min)
- Activity 2: "Navigating the Grocery Store" worksheets (10 min)
- Review & conclude (5 min)

FACILITATOR NOTES

When drawing the outline of the grocery store on the dry-erase board, don't label any of the different food sections. The point of the exercise is for the women to figure out on their own that most of the Go, Grow, Glow foods are found around the perimeter of the store, while most of the junk food is found in the middle aisles.

Since this is the last lesson, it is meant to wrap up everything that has been discussed by putting it in context of the grocery store. Keep this in mind while facilitating, and make sure to bring up key concepts from past lessons to ensure the mothers understand how they all relate.

Facilitator Instructions

Review Being in Charge

- Say: We have been talking about barriers to healthy eating.
- Ask: What is a barrier?
- Say: Last week we talked about the barrier of our children not wanting to eat fruits and vegetables. Let's review what we discussed last lesson.
- Ask: Why is it important to encourage children to try foods many times?
- Ask: What are some ways to stay in charge of what your child eats?
- Say: Remember, you are the mommy, and you can always say "no"!

Introduction to Navigating the Grocery Store

- Say: Today we are going to talk about grocery stores here in the U.S.
- Ask: What differences do you see in the grocery stores here compared to those in your home countries?
- Ask: Are there foods that you were used to eating that you cannot find in the grocery store here?
- Ask: Is it easier or more difficult to find healthy foods in the grocery store here in the U.S.?
- Ask: What patterns do you notice about where foods are found in the grocery store?
 - \circ $\;$ Explain what a pattern is, if necessary.
 - $\circ~$ Guide them toward the answer that fresh foods are found along the perimeter of the store, and packaged foods are found on the inside.

Activity 1: Where is it Found in the Store?

- Say: We are going to play a game called "Where is it found?"
- Write the words 'Grocery Store' on the top of the dry-erase board. Draw a big square, representing the perimeter of the store, and then draw a few lines on the inside, representing the aisles.
- Say: On the board here is a grocery store. I am going to show you a picture of a food item, and you will tell me where it is found in the store.
- Shuffle the GGG Flashcards with the junk food flashcards. Show each picture one at a time, asking the class where each food item is found. Stick each picture to the board where it would be found in a real grocery store.
- Ask: What do you notice about this picture?
 - Guide them toward the answer that most of the GGG foods are on the outside of the store, and most of the junk foods are on the inside of the store.

Discussion: Shopping the Perimeter

- Say: Knowing how grocery stores are set up can help you to be a smart shopper.
- Say: The concept called 'Shopping the Perimeter' means that you start out shopping around the outside of the grocery store. Once you are done with this, you can look for any remaining food items in the aisles.

• Say: Remember our lesson on budgets? Shopping the perimeter will help you stick to your budget, because you will find most of the Go, Grow, Glow foods during your first lap around the outside of the store. You will fill your cart up with healthy foods first, so that way you can ensure that you will not forget about those foods, or run out of room in your budget.

Activity 2: "Navigating the Grocery Store" worksheets

- Say: Now we will do an individual activity. I have some worksheets that have a picture of a grocery store like the one up here on the board. I would like for each of you to think about the grocery store that you go to. Then, you can either draw or write the food items that you most frequently buy in the area that they are found in the store.
- Ask: Does anyone have questions?
- Pass out the worksheets to each mother. Allow them to talk among themselves. Let them work for about 10 minutes.

Review

- Ask: How did that activity go? Was anyone surprised by where most of the foods were located?
- Say: Let's review what we talked about today.
- Ask: What does the concept 'shopping the perimeter' mean?
- Ask: Where are most of the Go, Grow, Glow foods found in the grocery store?
- Ask: What are two reasons why it is good to shop the perimeter?
- Ask: Who will try this the next time they go to the grocery store?

Conclude

 Say: This concludes our Mommy and Me Nutrition curriculum. Thank you for your participation, and I hope that you have been able to learn from yourself, your classmates, your teachers, and from these lessons. I hope that you will teach your friends and families about Go, Grow, Glow. Thank you!!

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What I Packed My Child for Lunch

DATE	FOOD BROUGHT

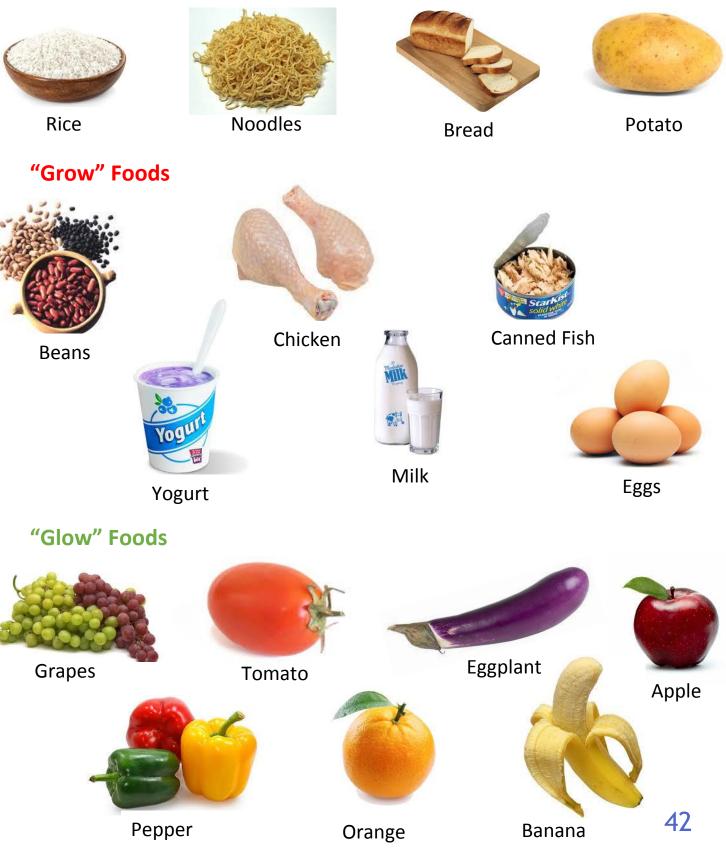


DATE FO

FOOD BROUGHT

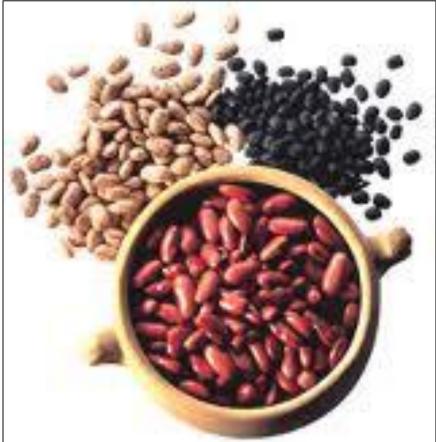
What I Packed My Child for Lunch

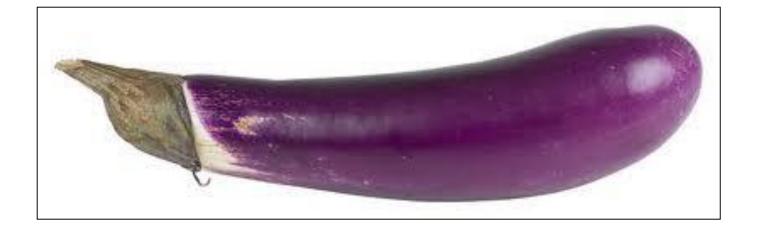
"Go" Foods



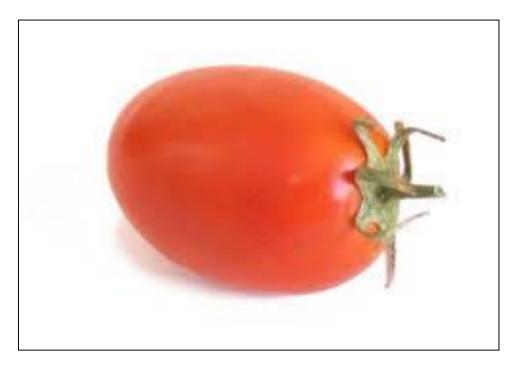






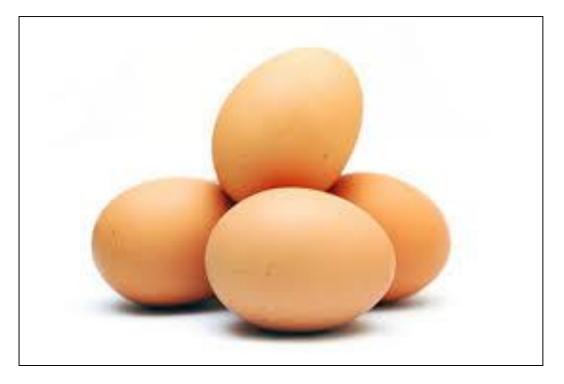








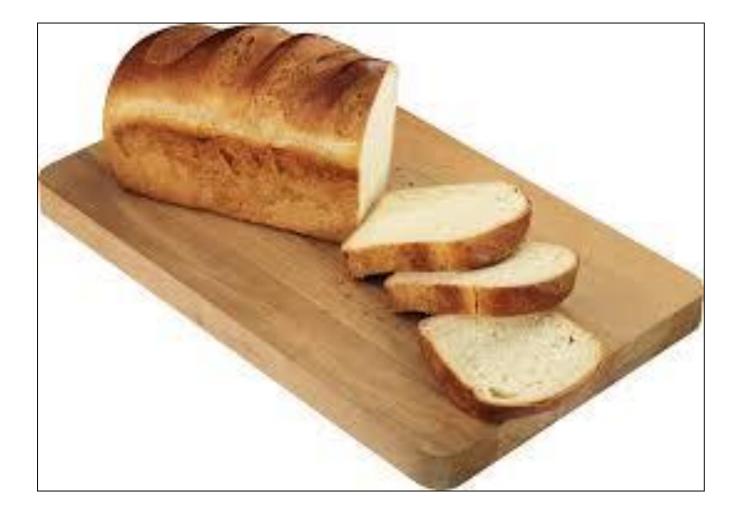




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Appendix C









Go, Grow, or Glow?

Circle **GO** foods with YELLOW Circle **GROW** foods with **RED** Circle **GLOW** foods with **GREEN**







Green-Berry Smoothie Recipe

Ingredients:

- 2 cups fresh spinach
- 1 whole banana
- 2 cups frozen berries
- 1 cup milk

Directions:

- 1. Measure 2 cups of fresh spinach and place in blender.
- 2. Peel banana and break into pieces; place in blender.
- 3. Measure 2 cups of frozen berries and place in blender.
- 4. Measure 1 cup of milk and pour into blender.
- 5. Place lid on blender and hold tightly. Blend ingredients until smooth (about 30 seconds).

6. Pour into glass and enjoy.

Fruit Parfait Recipe

Ingredients:

- 1 cup plain yogurt
- 1 whole banana, cut in slices
- 1 cup grapes, cut in half
- ½ cup oats, toasted
- 2 tsp. honey

Directions:

- 1. Spoon 1/3 cup of yogurt equally into 2 glasses.
- 2. Place 1/3 of the grapes and 1/3 of the banana slices on top of yogurt.
- 3. Spoon 1/3 of the toasted oats on top of fruit.
- 4. Repeat steps 1-3 two more times, so that you have 3 layers.
- 5. Drizzle honey on top.

Makes 2 servings

Go, Grow, Glow Noodles Recipe

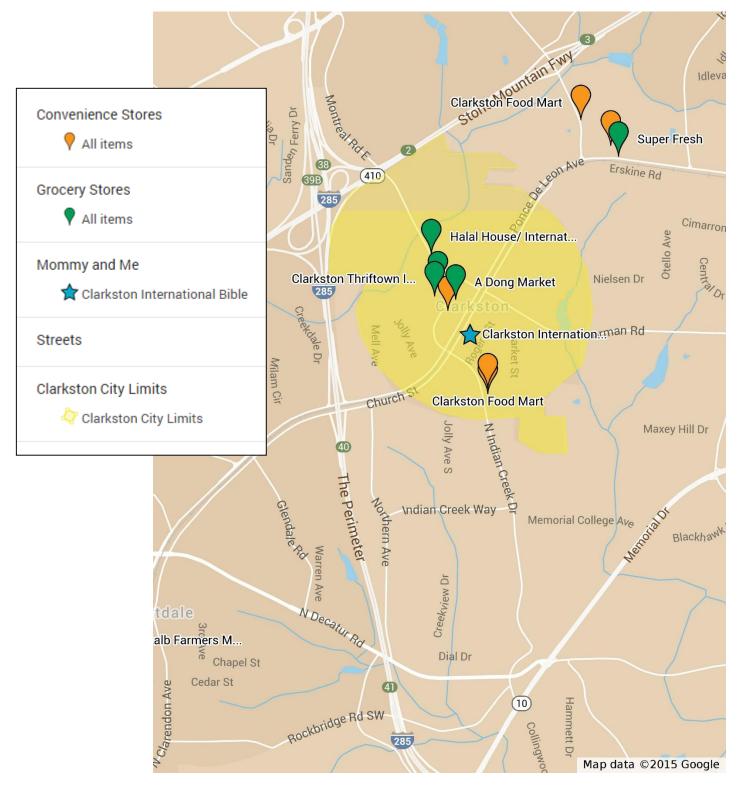
Write down your ingredients following these guidelines:

- 1. What "Go" food did you use?
- 2. What "Grow" food(s) did you add? -
- 3. What "Glow" food(s) did you add?
- 4. What spices did you use in place of the seasoning packet?

Directions:

- 1. Prepare instant noodles as listed on package. Do not use seasoning packet.
- 2. Add spices to noodles and mix well.
- 3. Wash and chop vegetables. Cook in pan if desired.
- 4. Prepare protein.
- 5. Add veggies and protein to noodles. Serve and enjoy!

Clarkston Food Sources



Grocery Shopping Buddies

Find 2-3 women in your class who take the same route as you to the grocery store. Fill out their information below:

Buddy #1		
Name:		
Phone number:		
Usual grocery store:		
Usual grocery shopping day(s) & time(s):		
Buddy #2		
Name:		
Phone number:		
Usual grocery store:		
Usual grocery shopping day(s) & time(s):		

Keep this in a safe place where you can easily access it

Planning a Grocery Budget

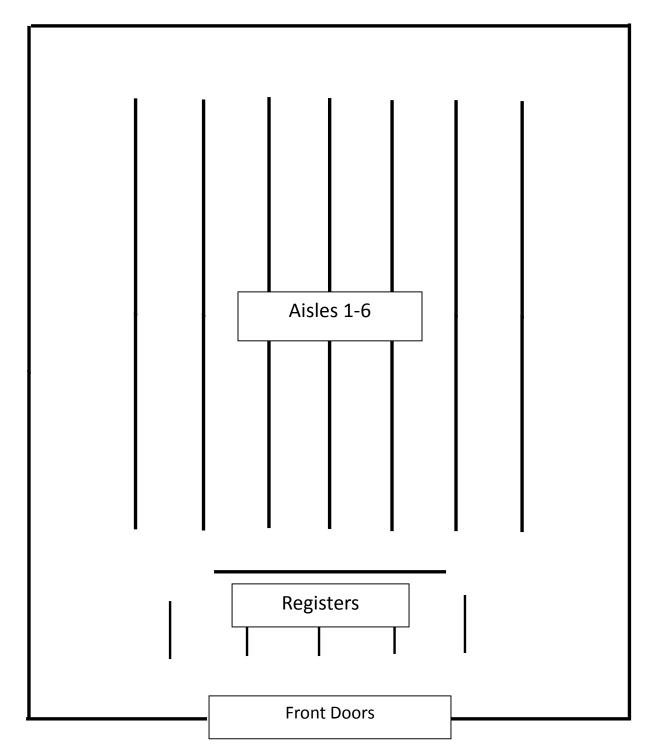
Fill out this chart with the dollar (\$) amounts that you will spend on each food during your next trip to the grocery store.

"Go" Foods			
Items:	Prices:		
Total budget for "Go" foods:			
"Grow" Foods			
Items:	Prices:		
Total budget for "Grow" foods:			

"Glow" Foods			
Items:	Prices:		
Total budget for "Glow" foods:			
Other Foods			
Items:	Prices:		
Total budget for other foods:			
Total budget for grocery shopping trip:			

Navigating the Grocery Store

Instructions: Draw pictures or write the names of foods on this diagram where you would find them in the grocery store.

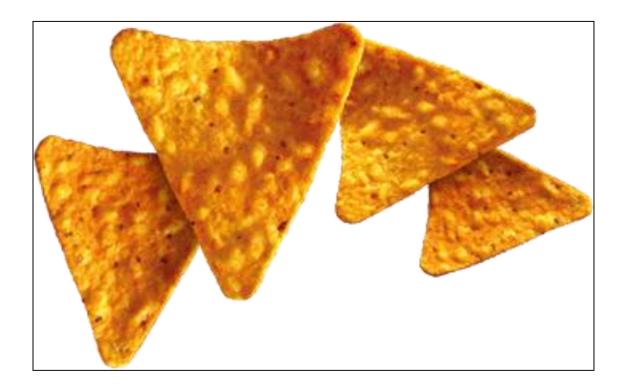




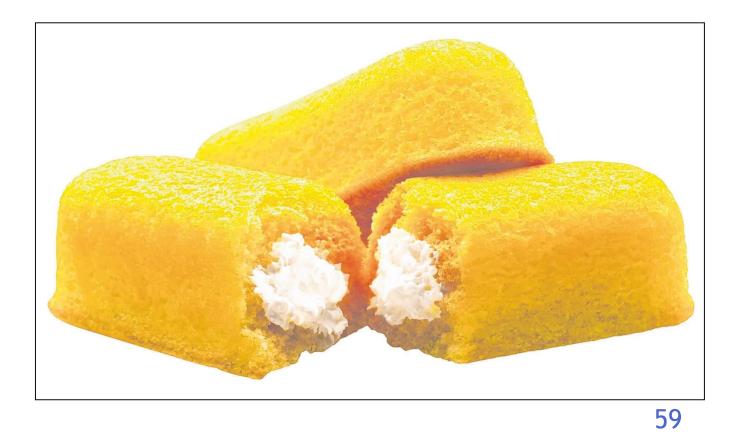
Facilitator Instructions: Cut out pictures and laminate to create flashcards















FOOD OF THE WEEK CURRICULUM

Goals/Objectives:

- 1. Children will be able to try and become familiar with new Go, Grow, Glow foods
- 2. Mothers will be able to learn new, simple recipes for Go, Grow, Glow foods

Materials Needed:

- "Food of the Week" worksheets, printed double-sided
- Crayons
- Paper plates & plasticware
- See ingredients list for each "Food of the Week." Ingredients will vary each week.

Budget:

- Printing
 - "Food of the Week" worksheets (60) \$20
- Food ingredients will vary each week \$20 TOTAL: \$40 (per week)

Facilitator Notes:

The "Food of the Week" is intended to be a separate piece of the curriculum. At MMFLP, many children come to class without a lunch or snack, so the school provides a small snack for these kids. The purpose of implementing a "Food of the Week" is not only to provide a healthy snack alternative, but also to expose the children to new Go, Grow, Glow foods. The intended schedule for this would be to introduce the children to the food right before snack-time, by showing them what the food looks like and asking questions about the color, size, and shape of the food. Samples of the prepared recipe will be distributed during snack time and the children will all be encouraged to try it. There is no need to force any child to eat the food, but gentle coaxing may be necessary, as there might be some resistance from some of the kids. The coloring worksheet can be done before or after snack-time. The purpose of printing the food information and recipe on the opposite side of the coloring worksheet is to encourage 'Mommy and Me' style learning. The kids will bring their picture to their mothers, who can then keep the worksheet for reference, and use the recipe to make the food at home.

Note that these are templates and can be used with any Go, Grow, Glow foods that the facilitator sees fit. More foods can and should be added to this curriculum based on the organization's preference.

FOOD OF THE WEEK: CARROTS

Week of _____

Where to get it: Thriftown, SuperFresh, Kroger, Publix, WalMart, DeKalb International Market

Price at Thriftown: \$0.79 per pound for raw, whole carrots

How to prepare it:

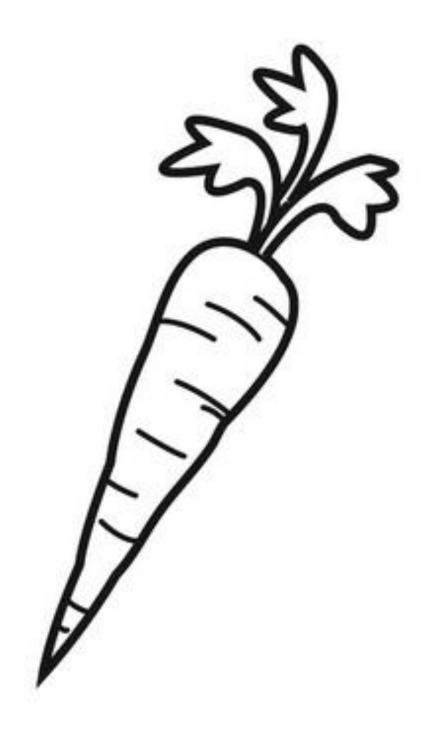
- Wash & eat raw
- Steamed or baked
- Cook & purée in blender or food processor

Recipe for this week's snack: Baked Carrots

Ingredients:

- 4 whole carrots, washed and peeled
- 2 tablespoons olive oil
- 1 tablespoon ground cinnamon
- 1. Preheat oven to 400 degrees Fahrenheit.
- 2. Wash and peel carrots. Slice carrots into 1-inch pieces.
- 3. Place carrots in 9x11-inch baking dish.
- 4. Drizzle olive oil on carrots. Toss with cinnamon.
- 5. Bake for 15-20 minutes, or until carrot pieces are soft & tender.
- 6. Serve warm; let cool before serving.

FOOD OF THE WEEK: CARROTS



FOOD OF THE WEEK: BANANAS

Week of _____

Where to get it: Thriftown, SuperFresh, Kroger, Publix, WalMart, DeKalb International Market

Price at Thriftown: \$0.59 per pound

How to prepare it:

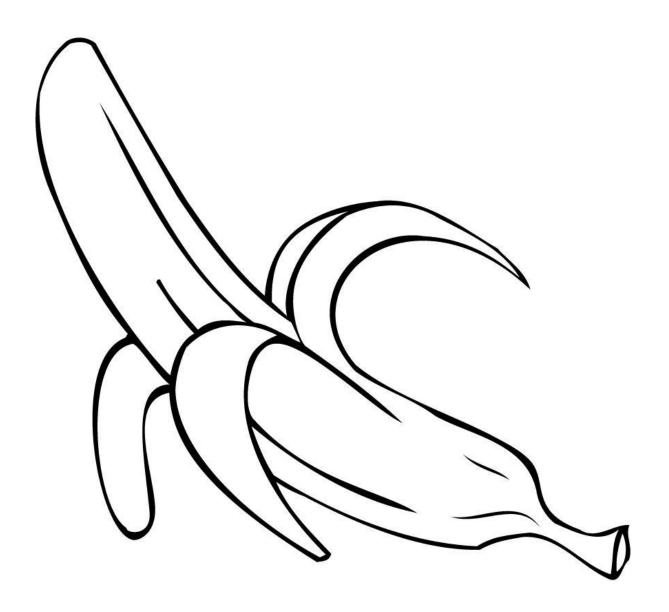
- Peel & eat whole banana
- Slice and add to yogurt, oatmeal, or cereal
- Purée in blender or food processor

Recipe for this week's snack: Banana with peanut butter

Ingredients:

- 1 bunch of bananas
- ½ cup peanut butter
- 1. Peel bananas.
- 2. Cut bananas in half, then cut in half length-wise (you will have 4 banana pieces for each banana).
- 3. Spread peanut butter on each piece of banana.
- 4. Serve at room temperature.

FOOD OF THE WEEK: BANANAS



FOOD OF THE WEEK: ZUCCHINI

Week of _____

Where to get it: Thriftown, SuperFresh, Kroger, Publix, WalMart, DeKalb International Market

Price at Thriftown: \$1.29 per pound

How to prepare it:

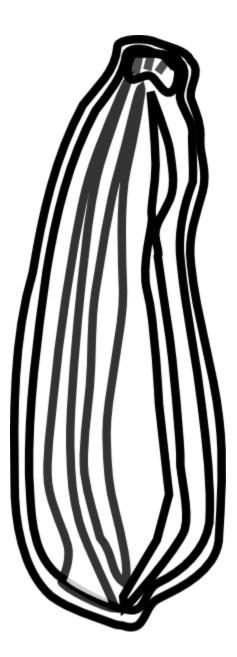
- Wash, slice, and eat raw
- Slice and bake in oven
- Cut in strips and use in stir-fry

Recipe for this week's snack: Baked zucchini chips

Ingredients:

- 5 whole zucchinis
- 2 tablespoons olive oil
- Pinch of salt and pepper
- 1. Preheat oven to 375 degrees Fahrenheit.
- 2. Wash zucchinis and cut into thin slices (should look like chips)
- 3. Place on baking sheet and drizzle with olive oil (make sure there is only one layer of zucchini slices—may need to use multiple baking sheets if they do not fit on one).
- 4. Bake for 10 minutes, or until zucchini looks crispy like chips.
- 5. Sprinkle with salt and pepper while they are still hot.
- 6. Let cool before serving.

FOOD OF THE WEEK: ZUCCHINI



FOOD OF THE WEEK: SWEET POTATOES

Week of _____

Where to get it: Thriftown, SuperFresh, Kroger, Publix, WalMart, DeKalb International Market

Price at Thriftown: \$0.59 per pound

How to prepare it:

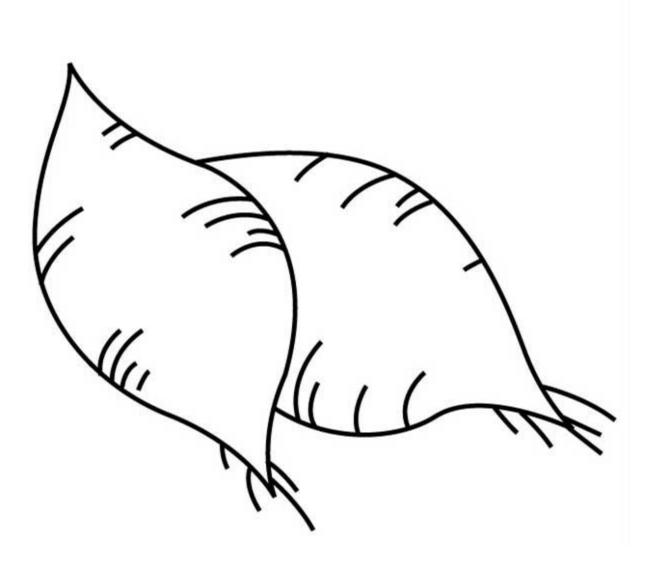
- Bake whole potato
- Cut in pieces and bake
- Peel, boil, and puree in blender or food processor

Recipe for this week's snack: Mashed sweet potatoes

Ingredients:

- 5 sweet potatoes
- 2 tablespoons butter
- 2 teaspoons cinnamon
- 1 tablespoon brown sugar
- 1. Wash and peel sweet potatoes, cut into quarters.
- 2. Place in large pot of water and bring to a boil.
- 3. Simmer for 20 minutes, or until potatoes are tender.
- 4. Drain water and mash potatoes (either by hand, or in blender or food processor).
- 5. Add butter, cinnamon, and brown sugar. Mix well.
- 6. Serve warm or at room temperature.

FOOD OF THE WEEK: SWEET POTATOES



FOOD OF THE WEEK: GREEN BEANS

Week of _____

Where to get it: Thriftown, SuperFresh, Kroger, Publix, WalMart, DeKalb International Market

Price at Thriftown: \$1.59 per pound

How to prepare it:

- Wash and eat raw
- Steam or sauté
- Add to soups, casseroles, stir-fry, etc.

Recipe for this week's snack: Three bean salad

Ingredients:

- 1 pound fresh green beans, washed & trimmed
- 1 15-oz. can garbanzo beans (chickpeas), rinsed & drained
- 1 15-oz. can kidney beans, rinsed & drained
- 3 tablespoons olive oil
- Juice of 1 lemon
- Pinch of salt and pepper
- 1. Place green beans in a steamer basket over a pot of boiling water, cook about 5 minutes or to preferred tenderness.
- 2. Let green beans cool completely.
- 3. Place green beans in mixing bowl and add chickpeas and kidney beans.
- 4. Toss beans with olive oil, lemon juice, salt and pepper.
- 5. Serve chilled or at room temperature.

Appendix L

FOOD OF THE WEEK: GREEN BEANS

