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April 22, 2011

Un Kilo de Ayuda's Food Package Component in the State of Guerrero: Use,  
Acceptability, and Appropriateness

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2007

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## Abstract

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By Laura Whitaker

**Background:** Un Kilo de Ayuda (UKA) is a non-governmental organization that seeks to eliminate childhood malnutrition in Mexico by the year 2023. In order to do this, UKA employs an integral nutrition intervention including six components: nutrition education, food package distribution, anemia, anthropometry, safe water, and neurodevelopment. Though the impact of the program as a whole has been shown quantitatively with the program's own monitoring data, UKA has not conducted evaluation of individual components to identify any gaps between the current results of the program and the full potential of the program.

**Objective:** To evaluate use, acceptability, and appropriateness of UKA's bimonthly distributed food package at the household level.

**Methods:** In-depth interviews (IDI) were conducted with two staff members at the main office of UKA in Mexico City, three site staff members at the Guerrero site UKA center, and 12 women receiving food packages from UKA. All interviews were done to assess perceptions of use, acceptability, and appropriateness of the food package at the household level. Observations were conducted in six households for a total of 12-16 hours each to assess actual use within the homes. IDIs and observations were analyzed using qualitative content analysis. A three-question survey conducted by staff was analyzed to assess which products mothers would remove from the package if they could exchange that product for another product.

**Results:** From the census, 20.8% of women said they would not like to have any products removed. Of women that said they would like to remove a product from the package, 43.1 said they would like to have flour removed, 13.1 said they would like to have amanene removed, and 11.6 said they would like to have marzipan removed. All reasons for not accepting these products were related to the inability to purchase the products in the region. Differences in main office staff and beneficiary perceptions existed for use of unaccepted products, acceptance of specific products, and local community norms affecting package use.

**Discussion:** There were few gaps in staff and beneficiary perceptions of acceptance of the package as a whole. However, broad gaps in main office staff and beneficiary perceptions of use, acceptance, and family distribution may limit the effectiveness of the package as a whole. The findings from this research can be used to modify package design as well as to illustrate the importance of strengthened communication between beneficiaries and main office staff.

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## Chapter 1: Introduction

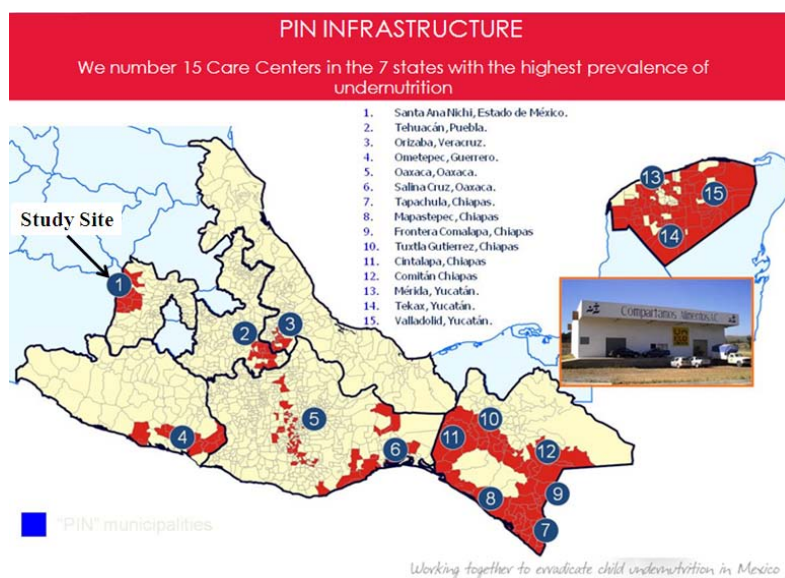
Malnutrition is an underlying cause of over half of deaths in children under five years of age globally (1). Though undernutrition in Mexico has decreased over the years, protein-energy and micronutrient deficiencies remain major public health problems in Mexico, particularly in the southernmost indigenous regions (2).

There have been several forms of response to the burden of malnutrition in poorer areas of Mexico. Most of the response has been in the form of food distribution programs which have not had any measurable impact on malnutrition (3). However, there are currently programs with data to suggest lowering rates of undernutrition. One of these is a non-governmental organization called Un Kilo de Ayuda (UKA). This study focuses on the food distribution element of UKA.

UKA targets pregnant and lactating women and children under five years of age by utilizing the Integrated Nutrition Program or PIN (Programa Integral de Nutrición). PIN incorporates six components: nutritional education, available potable water, food packages, anemia detection, nutritional surveillance, and neurodevelopment evaluation. The mission of the organization is to collaborate with business, government, and civil society to ensure childrens' full physical and mental abilities and to achieve equality and freedom for all. The organization's vision is to eradicate child malnutrition in Mexico by 2023. PIN reaches over 217,000 people in the seven states with the highest rates of undernutrition. 73% of the country's malnourished children live in these seven states, which are displayed in Figure 1 (4).



**Figure 1: Project Study Site (7).**



## 2. Problem Statement

The food package component of UKA is designed to help meet the nutritional requirements of the family. Unlike unsuccessful food distribution programs in the past, the food package is not meant to simply supplement poverty, but to provide nutritional support so beneficiaries can develop skills that create opportunities for the future (4). Ten items are included in the package, four of which (targeted products) are targeted specifically to children under five years of age and pregnant and lactating women (targeted person) (5). A list and description of package items is found in Chapter 3.

The educational component of PIN is conducted bimonthly by a health promoter (HP) and often includes lessons that educate mothers about the use of the food packages. The combination of an educational component and a dietary component is similar to the strategy employed by the Mexican Federal conditional cash transfer program, Oportunidades (6). Both Oportunidades and UKA claim success in reducing malnutrition rates, due to nutrition education and nutrition support (food or supplement) (5,7).

UKA's PIN system was specifically designed in 2000 to provide quantitative outcomes (5). Though the intervention may show quantitative impact, it may not be achieving its full potential due to unidentified barriers. Qualitative evaluation of consumption of the nutritional supplement provided by Oportunidades revealed that the intervention was highly accepted and accessible. The evaluation also revealed however, that a number of barriers prevented compliance with the program's recommendations. Some of these barriers include beliefs about child feeding, beliefs about the purpose of the supplement, and lack of adequate storage (6). Examination of actual use, acceptance, and perceptions of the food component of UKA may identify barriers such as those revealed by the evaluation of the Oportunidades nutritional supplement. Evaluation of appropriateness of the food package to the target population is also essential to the effectiveness of the intervention. UKA needs a qualitative evaluation to identify any gaps between the current results of the program and the full potential of the program.

### **3. Purpose Statement**

The purpose of this study is to evaluate use, acceptability, and appropriateness of UKA's bimonthly distributed food package at the household level using qualitative methods.

### **4. Research Questions**

1. How are food packages being used inside the home and what are reasons for use and acceptance of particular items?
2. What do families perceive to be the reason and benefit of the food package?

3. What are the gaps between staff perceptions of use and acceptance and the reality of use and acceptance at the household level?

#### Aims

1. Assess use of food package inside the home.
2. Understand acceptability and perceptions of mothers regarding food package.
3. Assess mothers' understanding of the reason for and the benefit of the food package.
4. Discover staff members' perspectives of use, acceptance, and appropriateness of the package.

#### **5. Significance Statement**

UKA surveillance data suggest an impact on malnutrition. However, reasons for possible successes of the intervention have yet to be evaluated. Evaluation of the appropriateness to the population may indicate a need for targeting specific components of the package to specific groups within the population. Similarly, knowledge of the application and perception of the food package may reveal opportunities and solutions for improvement in the quality of the intervention.

#### **6. Ethical statement**

Approval for this study was obtained by the Institutional Review Board of Emory University.

## **Chapter 2: Comprehensive review of the literature**

### **Malnutrition**

Undernutrition is a leading risk factor for maternal and child mortality, and developing countries bear the greatest burden (8). Globally, the median of children under five years of age that are stunted is 29.1 percent and wasted (9) is 11.8 percent (10). Micronutrient deficiencies are often directly associated with mortality. 1.1 million children under five years of age die each year due to vitamin A and zinc deficiencies, and 136,000 women and children die each year because of iron-deficiency anemia (11).

In Mexico, there has been a marked decrease in the prevalence of undernutrition (4). However, 17.7% of children nationwide remain stunted, and a large number remain wasted and underweight. Moreover, there is a great disparity between regions demonstrated by the 40% prevalence of stunting in the southernmost, largely indigenous states of Mexico (2).

Though undernutrition is still a major concern in Mexico, overnutrition has emerged as a significant public health problem. The nutrition transition is marked by an increase in obesity, as well as non-communicable chronic diseases (12). A number of studies have examined the root of this problem in Mexico (13, 14, 15, 16, 17).

### **Supplementary feeding**

A systematic review assessing the effectiveness of supplementary feeding (defined as the provision of extra food to the household) on growth of children in

developing countries reported inconclusive results on the effectiveness of the intervention. Programs included in the review provided food assistance in Jamaica, Guatemala, and Indonesia. Ten other programs, including Oportunidades in Mexico, were considered but not included in the review (18).

### **Mexican food assistance programs**

Mexico has a long standing history of ineffective food assistance programs that were not properly evaluated. However, review of past programs reveals that interventions are most effective when they include educational components and other comprehensive measures. Increasing knowledge of malnutrition, intervention strategies, and evaluation techniques can serve to increase the effectiveness of future food assistance programs in Mexico (3).

Standards for food assistance programs in Mexico were established in 1998 by the Mexican Ministry of Health. Guidelines state that food aid must cover at least 20 percent of the dietary needs of the targeted person or family (19).

Existing federal programs providing food assistance in Mexico are Oportunidades, Programa de Apoyo Alimentario (PAL), Programa de Apoyo Alimentario en Zonas de Atencion Prioritaria (PAAZAP), Liconsa, Desarrollo Integral de la Familia (DIF), and Diconsa.

#### Oportunidades

Oportunidades is the federal conditional cash transfer program which provides cash to poor families on the condition that the families comply with a set of requirements regarding education and health care visits. As part of the intervention, Oportunidades

offers a fortified milk based supplement designed for pregnant and lactating women, children 6-24 months of age, and children 2-4 years with low bodyweights.

Oportunidades targets the poor in rural areas, where a 1998 nationwide survey found the prevalence of stunting (38.8%) and anemia (29.9%) in children under five, both appreciably higher than the national average (20).

A key design element of Oportunidades was built-in monitoring and evaluations. Initial results demonstrated the association between intervention cash transfers and increased height-for-age Z-scores, lower BMI, and lower prevalences of stunting and overweight (7).

A November 2009 study reviewed an array of health outcomes in the original cohort of Oportunidades children, aged 8-10 years. The authors found no significant differences in mean height-for-age or BMI-for-age Z scores, or language and cognition tests. However, there was a significant reduction in social/emotional problems ( $p < 0.05$ ) as assessed by observation and interviews with mothers (20). Evidence also shows that the transfers are encouraging greater energy consumption in the long term for the general population (21).

*Utilization and acceptance of the nutritional supplement of Oportunidades:*

While developing the nutritional supplement (a pap supplement) for the program Oportunidades, researchers conducted an assessment prior to the beginning of the study to explore whether the nutritional supplement offered was accepted (by flavor, taste, and appearance) by the population. The goal of design was to create a nutritionally valuable supplement that was feasible to produce and widely accepted. Feasibility of production took into account local availability and production at low cost. Acceptance of the

product was a key component of the evaluation due to the history of past failed food distribution programs in Mexico attributable to non-acceptance of products (22, 23).

Acceptance of the product was tested in sensory evaluations of children 6–24 months of age (23) and in face to face interviews (24). In interviews, women revealed that acceptance of supplement flavors was highly influenced by prior exposure to the specific flavors. Pregnant women, when interviewed, considered the benefit of the package to be any health advantage (such as vitamin content) that the supplement might offer to the baby.

Several years after the implementation of delivery of the food supplement, evaluations of consumption (performed using a detailed questionnaire) of Oportunidades supplements showed less than ideal compliance (25). One study evaluating the acceptability of the supplements using observations, focus groups, and IDIs showed that supplements are best taken in liquid form and often initially caused vomiting, nausea, and diarrhea. The study recommended culturally specific assessments to evaluate the supplement (26).

Qualitative midterm evaluation of Oportunidades found that the use of the nutritional supplement had increased from a previous assessment in 2000 and 2001. The study found some cases of consumption by unintended recipients, but found few reports of misuse overall. It was however, found in this study, that overabundance of supply of supplements often lead to waste of the supplements (27).

Results from a qualitative study in 2008 show high acceptance of the nutritional supplement; but inconsistencies between the recommendations of the program and

household practices. Specifically, poverty conditions and “intra-household dilution” at the household level are factors in non-adherence to recommendations (6).

Another qualitative study seeking to understand social representations of Oportunidades beneficiaries recognized the importance of local culture on the eating behaviors of the people. The study highlighted that mothers of individual cultures decide differently whether or not to feed their children specific foods (28).

A behavioral intervention tested utilization of the Oportunidades supplement by making specific recommendations: prepare the supplement as pap, prepare the supplement daily, prepare the supplement at a certain time of day, and feed the supplement to the targeted child only. The study found correct behaviors increased with all specific recommendations except in the case of feeding the supplement to the targeted child only. The lack of change for this behavior was important, as one of the aims of the intervention was to reduce leakage to other family members, ensuring that the child received the full ration. (29)

### PAL

Because there is a requirement that a community must have a school or health center to be included in Oportunidades, communities without these institutions were not eligible to participate in the program. Therefore, PAL was created to fill this gap. PAL is a conditional transfer program providing a food basket or cash transfer contingent on regular health education sessions and program-related logistic activities. In evaluating the program to examine the effects of a food basket transfer in comparison to a cash transfer, one study found that both interventions increase energy intake by participants,



but food basket interventions increased energy significantly more than cash transfers (16).

Qualitative evaluation found that many barriers limiting the impact of PAL in the case of the food basket transfer are due to the long-standing eating habits, preferences or tastes of the people. These barriers are cultural and rooted in demand based on supply in local markets (30).

### PAAZAP

PAAZAP provides food and nutritional support for people in marginalized communities that are not eligible for Oportunidades because of lack of schools and health care centers. PAAZAP recipients receive a non-conditional cash or in-kind transfer, counseling, and nutritional support (31).

An evaluation found the program design and objectives of PAAZAP to be ineffective; not surprising given its similarity to PAL. The sampling of PAAZAP closely mimics PAL and the duplication of programs causes the program to be redundant. The evaluation suggests that only one program cover the gap not met by Oportunidades (32).

### DIF (National)

DIF provides four types of food assistance to indigenous, rural, and marginalized urban communities. The first is a public school program that provides breakfast to children. Another type of assistance offered is one that provides age and diet specific products to children under the age of five. Other types of assistance not aimed specifically at children are temporary food assistance to families in need and food assistance to vulnerable subjects (33).

### Liconsa

Liconsa is a program that subsidizes fortified, powdered whole milk through the federal government to low income families with children 6 months-12 years of age (34). Evaluation of the Liconsa program has shown that participation in the program is associated with decreased prevalence of anemia (35), but concerns exist about excess energy increases due to Liconsa milk (16). However, one study found no association between participating in the Liconsa program and overweight and obesity of children aged 5-11 years (17).

### Diconsa

The Diconsa program places food pantries in low-income areas to supply subsidized commodity and supplementary products. Liconsa, the subsidized milk powder, is sold at Diconsa pantries (36).

### Chapter 3: Description of the Food Package Component

The food package component of UKA consists of a bimonthly delivery of ten products. Products and respective delivered quantities are listed below in Table 1. The food package was designed by staff from the Instituto Nacional de Ciencias Médicas y Nutrición, “Salvador Zubirán”, to meet at least 20 percent of the energy and protein requirements of a family of five people for two weeks, according to the Mexican official standard NOM-169-SSA1-1998 (19), for food assistance to vulnerable groups. Analyses of energy and protein requirements assume a family of one child aged 5-12 months, one child aged 1-2 years, one child aged 7-10 years, one man aged 25-50 years, and one woman aged 25-50 years. Daily, weekly, and bimonthly energy and protein requirements for each age group as well as total requirements for a family of five (as described above) are listed below in Table 2. Nutrient composition of each package item is described in Table 3 (macronutrients) and Table 4 (micronutrients). According to these analyses, the food package represents 20.5 percent of calorie intake and 24.8 percent of protein intake for a family of five members for two weeks.

At the time of the study, the approximate cost of the ten food items if purchased in the market was approximately 110 pesos.<sup>1</sup> In order to receive the package, mothers had to pay a price of 45 pesos<sup>2</sup> at the start of the program in 2000, but this gradually

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<sup>1</sup> 8.51 USD (<http://www.oanda.com/currency/converter>) June 2010

<sup>2</sup> 3.48 USD (<http://www.oanda.com/currency/converter>) June 2010

increased to a price of 65 pesos<sup>3</sup> at the time of the current study in 2010 (4). Two products (rice and sugar) were reduced in quantity from the start of the program to the time of the current study, and both sets of quantities are noted in Table 1. Beneficiaries with one targeted person in the household received one package, while beneficiaries with more than one targeted person in the household received two packages. Two packages was the maximum number of packages distributed per household.

**Table 1. Target group and quantity of each product in the food package**

Product	Intended recipient <sup>1</sup>	Quantity delivered in 2000	Quantity delivered in 2010
<b>Cookies*</b>	Targeted person (s)	1 package (320 g)	1 package (320 g)
<b>Vegetable oil</b>	All family members	1 kilo	1 kilo
<b>Sugar</b>	All family members	1 kilo	0.5 kilo
<b>Corn flour*</b>	All family members	1 kilo	1 kilo
<b>Rice</b>	All family members	1 kilo	0.5 kilo
<b>Pasta</b>	All family members	2 packages (200 g each)	2 packages (200 g each)
<b>Beans</b>	All family members	1 kilo	1 kilo
<b>Milk<sup>2*</sup></b>	Targeted person (s)	3 packages (240 g each) <sup>3</sup>	3 packages (240 g each) <sup>3</sup>
<b>Amanene<sup>4*</sup></b>	Targeted person (s)	1 package (320 g)	1 package
<b>Marzipan<sup>5*</sup></b>	Targeted person (s)	2 (25 g each)	2 (25 g each)

<sup>1</sup> Targeted person (s) signifies children under five years of age and/or pregnant and lactating women

<sup>2</sup> Milk is Liconsa brand. The milk is provided in powdered form and intended to be prepared with water.

<sup>3</sup> Each package of powdered milk makes 2 liters of milk.

<sup>4</sup> A cereal consisting predominantly of oats and amaranth. The cereal is provided in a powdered form and intended to be prepared with water or milk. The product is distributed in one of three flavors: chocolate, strawberry, or natural.

<sup>5</sup> A peanut and amaranth candy

\*Fortified with micronutrients

<sup>3</sup> 5.03 USD (<http://www.oanda.com/currency/converter>) June 2010

**Table 2. Recommended daily, weekly, and bimonthly energy and protein intake for a family of 5 members (37)**

Age group	Recommended energy intake (kcal)			Recommended protein intake (g)		
	Daily	Weekly	Bimonthly	Daily	Weekly	Bimonthly
5-12 months	850	25500	11900	14	420	196
1-2 years	1300	39000	18200	16	480	224
7-10 years	2000	60000	28000	28	840	392
Man 25-50 years	2900	87000	40600	63	1890	882
Woman 25-50 years	2200	66000	30800	50	1500	700
<b>Total</b>	<b>9250</b>	<b>277500</b>	<b>129500</b>	<b>171</b>	<b>5130</b>	<b>2394</b>

**Table 3. Macronutrient content of each product in the package (38)**

	Weight (g)	Portions received	Energy	Protein	Carbohydrates	Lipids
Cookies*	135	1	581	9	104	14
Vegetable oil	1000	1	9000	0	0	1000
Sugar	500	1	1845	2	453	3
Corn flour*	1000	1	3500	71	774	38
Rice	500	1	1770	37	394	5
Pasta	200	2	1516	30	331	8
Beans	1000	1	3310	218	554	25
Milk <sup>1</sup> *	240	3	3557	176	281	176
Amanene <sup>2</sup> *	320	1	1296	44	259	9
Marzipan <sup>3</sup> *	25	2	235	8	37	6
<b>Total</b>			<b>26609</b>	<b>595</b>	<b>3187</b>	<b>1284</b>

<sup>1</sup> Milk is Liconsá brand. The milk is provided in powdered form and intended to be prepared with water.

<sup>2</sup> A cereal consisting predominantly of oats and amaranth. The cereal is provided in a powdered form and intended to be prepared with water or milk. The product is distributed in one of three flavors: chocolate, strawberry, or natural.

<sup>3</sup> A fortified peanut and amaranth candy

\*Fortified with micronutrients

**Table 4. Micronutrient content of each product in the package (38)**

Product	Weight (g)	Number received	Iron (mg)	Zinc (mg)	Vit. A (µg)	Vit. C (mg)	Vit. B 12 (µg)	Folic Acid (µg)	Calcium (mg)	Thiamin (mg)	Riboflavin (mg)
Cookies*	135	1	2.7	0.297	0	0	0	9.5	29.7	0	0
Vegetable oil	1000	1	0	0	0	0	0	0	0	0	0
Sugar	500	1	21	0	0	0	0	0	255	0.1	0.55
Corn flour*	1000	1	39	20	5	0	0	0	1400	2.2	0.5
Rice	500	1	5.5	0.1	0	0	0	0	50	0	0
Pasta	200	2	8.4	1.4	0	0	0	100	140	0.48	0.32
Beans	1000	1	47	36.5	0	0	0	3860	1830	0	0
Milk <sup>1*</sup>	240	3	79.2	79.2	3240	720	0.648	482.4	6566.4	0	7.92
Amanene <sup>2*</sup>	320	1	72.7	72.7	2909	291	5.1	363.5	0	0	5.8
Marzipan <sup>4*</sup>	25	2	0	0	0	0	0	0	0	0	0
<b>Total</b>			<b>276.5</b>	<b>210.2</b>	<b>6154</b>	<b>1011</b>	<b>5.7</b>	<b>4815.4</b>	<b>10271.1</b>	<b>2.8</b>	<b>15.1</b>

<sup>1</sup> Milk is Liconsa brand. The milk is provided in powdered form and intended to be prepared with water.

<sup>2</sup> A cereal consisting predominantly of oats and amaranth. The cereal is provided in a powdered form and intended to be prepared with water or milk. The product is distributed in one of three flavors: chocolate, strawberry, or natural.

<sup>3</sup> A peanut and amaranth candy

\*Fortified with micronutrients

## **Chapter 4: Project Content**

### **Methodology and methods**

#### **Study design**

This study employed qualitative data collection in the form of in-depth interviews (IDI) and semi-structured observation. Secondary data collected by site staff were also analyzed.

Qualitative data were collected in a cross sectional manner. A cross sectional research design is used to collect data in a single episode and to study existing issues within a study population. This design was relevant because it was not necessary to collect and compare data in multiple episodes over a length of time. A case study design was not necessary because study objectives required various beneficiaries' perceptions of a program component, in contrast to various perceptions of a single event.

#### **Research context**

The study targeted mothers regularly receiving food assistance from UKA care centers in the State of Guerrero. The State of Guerrero was chosen for this study because health promoters (HPs) at the Guerrero site had been working with the organization for a longer period of time than HPs at any other site. HPs deliver all components of the intervention, including nutrition education and package delivery. Because staff play a

large role in package delivery and package education, it was important to choose a site where staff members had been consistently working with beneficiaries over some period of time. Moreover, it was crucial for my colleague to have long term employees due to the nature of her study regarding perception of the nutritional education component.<sup>4</sup> The Guerrero UKA center, located in Ometepec, serves approximately 40 communities. For the purpose of this study, six of the approximately 40 communities served at the Guerrero site were selected. Communities that did not use Spanish as the primary language and communities that had participated in the program for one year or less were not included. Excluding these communities resulted in a remaining 27 communities. The four communities chosen for focus groups in my colleague's study were excluded in order to lessen research burden on those communities. This resulted in a remaining 23 communities. From these 23 communities, sampling criteria were used to develop a list of six communities. These sampling criteria consisted of region, manager rating, HP that oversaw the community, and size.

The 23 communities were divided into three regions: mountain, coast, and town. A few communities could not specifically be designated to one of those regions. Due to convenience and an increasingly small sample, these ambiguous communities were identified by the site manager by the region that best described them. For example, one of the final selected communities was 30 minutes from the coast but not near the town. Because of its close proximity to the coast, it was designated to the coastal region. From the sample of 23 communities, 9 were in the mountain region, 8 were in the coastal region, 5 were in the town region, and one community was unidentifiable. Because

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<sup>4</sup>My colleague participated in similar research with UKA and was placed in the same site for feasibility purposes.



design was based on region types, this unidentifiable community was excluded due to lack of clarity on the region type. Two communities from each region were chosen for the study. Communities were also subjectively divided into categories of very good, good, fair, bad, and very bad by the site project manager. The site manager based these categories on whether the community participated in education sessions and whether the program seemed (from his perspective) to run well in that community. A community was chosen from each one of the four HPs' territories. Since there were only four HPs and a need for six communities, two of the HPs were sampled twice.

From the selection criteria listed, sites were chosen in this order. First, the largest and smallest communities (based on total families participating in UKA) were chosen. Then, the very best and very worst manager rated communities were chosen. From these four communities, the criteria requiring at least one community for each HP was satisfied. This left a need for one coastal community and one town community, as well as a need for a mix of "good" and "bad" communities. The six communities chosen represent the best (very good), worst (very bad), good, bad, and in between (fair). Site characteristics are listed in Table 5.

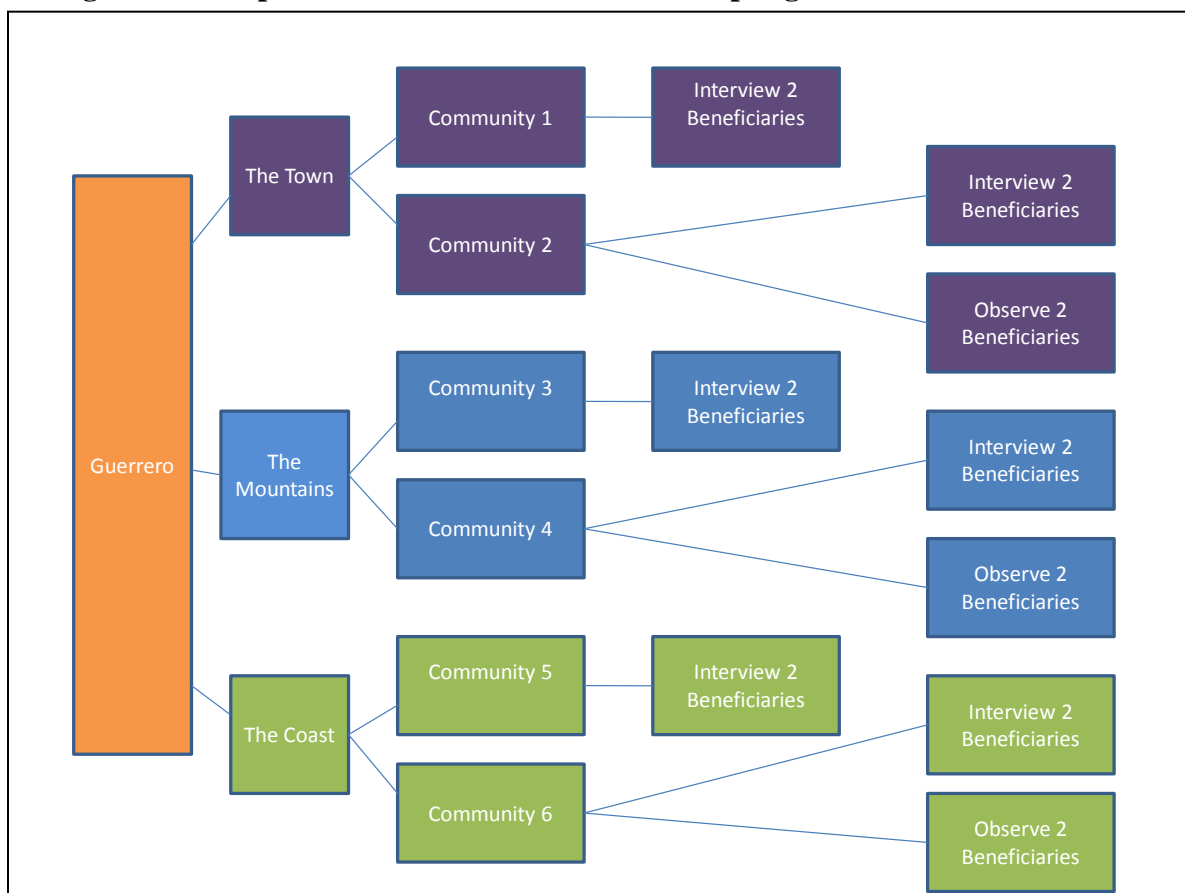
**Table 5. Characteristics of sample communities**

<b>Community</b>	<b>Manager Rating</b>	<b>Total Families</b>	<b>Total Children</b>
<b>Mountain 1</b>	Very bad	30	30
<b>Town 1</b>	Fair	38	45
<b>Town 2</b>	Fair/very good*	89	86
<b>Coast 1</b>	Very good	60	59
<b>Mountain 2</b>	Good	25	26
<b>Coast 2</b>	Bad	45	41

\*Town 2 has two ratings because the community was divided into two meeting groups. The same HP attended to both communities on the same day.

From each of the six communities, two beneficiaries were chosen for interviews. One community from each of the three regions (town, mountain, and coast) was selected for conducting both IDIs and observations. In each of these three communities, two beneficiaries were selected for observation in addition to the two beneficiaries selected for IDIs. Selection is depicted in Figure 2.

**Figure 2. In-depth interview and observation sampling**



Data were collected from June 1- July 25, 2010. The study was not conducted with collaborators, but it was supported and assisted by three Emory professors. The practicum supervisor, working at the main office in Mexico City assisted in set up and communication between me, the main office, and Guerrero staff. The Guerrero site manager assisted in choosing study sites. HPs assisted in locating targeted study participants and introducing and facilitating contact with comisionadas (beneficiaries selected as UKA leaders within each community). All site staff (manager, HPs, accountant, and site doctor) assisted in general orientation and providing any needed or requested information.

**Study population**

The study population consisted of two main office staff, three site staff, 18 beneficiaries, and six families (of the 18 beneficiaries).

Main office staff interviewees were selected by the practicum supervisor who used her own judgment about what employees would be able to provide needed information about the food package.

Beneficiary participants were chosen as study subjects due to participation in the program and residence in the communities selected by the process detailed above. Participant selection and recruitment is explained below in the section regarding the data collection process. Beneficiary participant characteristics are detailed in the Tables 6 and 7.

**Table 6. Family characteristics: IDI Participants**

<b>Community</b>	<b>Pregnant</b>	<b>No. of children &lt;6m</b>	<b>No. of children &gt;6m-</b>	<b>No. of children ≥2y–&lt;5 y</b>	<b>No. of children ≥5y–&lt;18 y</b>	<b>Other<sup>1</sup> assistance received<sup>1</sup></b>
<b>Coast 1</b>	No		1		2	No
<b>Coast 1</b>	No	1			3	Oport.
<b>Town 1</b>	No		1		2	No
<b>Town 1</b>	No		1			No
<b>Mountain 1</b>	No			1	2	NR
<b>Mountain 1</b>	No		1	1	1	NR
<b>Coast 2</b>	No			1	2	No
<b>Coast 2</b>	Yes				1	No
<b>Town 2</b>	Yes		1			No
<b>Town 2</b>	Yes				1	NR
<b>Mountain 2</b>	Yes			1	3	Oport.
<b>Mountain 2</b>	No		1	1		No

<sup>1</sup>NR = Not reported in UKA database. Oport. = Oportunidades.

**Table 7. Family Characteristics: Observation Participants**

<b>Community</b>	<b>Pregnant</b>	<b>No. of children &lt;6m</b>	<b>No. of children &gt;6m-</b>	<b>No. of children ≥2y–&lt;5 y</b>	<b>No. of children ≥5y–&lt;18 y</b>	<b>Other assistance received<sup>1</sup></b>
<b>Coast 1</b>	No			2	1	None
<b>Coast 1</b>	No	1				None
<b>Mountain 1</b>	No	1		2	5	Oport.
<b>Mountain 1</b>	No			1	3	NR
<b>Town 1</b>	No	1		1	2	NR
<b>Town 1</b>	No		1			No

<sup>1</sup>NR = Not reported in UKA database. Oport. = Oportunidades.

## **Data collection methods**

### In-depth interviews

IDIIs were conducted with two staff members at the main office of UKA in Mexico City, and three site staff at the Guerrero site UKA center. 12 IDIs were conducted with beneficiaries in six of the approximately 40 communities participating in UKA in Guerrero.

IDIIs consisted of 30-90 minute long discussions structured by prepared interview guides. Three interview guides were used, one for each interviewed population (main office staff, site staff, beneficiaries). Each guide contained questions tailored to the IDI objectives for that population. All guides contained 14 open-ended questions with associated probe questions. Basic and probe questions were added, removed, or modified throughout the course of the interview depending on types of answers given. Instances of modification include the interviewee bringing up an issue that required more definition, an interviewee answering a question in a closed manner, or an interviewee having already thoroughly described an issue in an earlier part of the interview.

IDI objectives:

Main office staff

1. To assess main office staff perceptions of the package's appropriateness and of use and acceptance at the household level (Aim 4).
2. To gain information about the evolving design and original intention of the package.

3. To determine what main office staff thought were the most important questions to be asked in beneficiary interviews.

#### Site staff

1. To assess site staff perceptions of the package's appropriateness and of use and acceptance at the household level (Aim 4).
2. To determine what site staff thought were the most important questions to be asked in beneficiary interviews.

#### Beneficiaries

1. Assess the use of food baskets inside the home (Aim 1).
2. Assess the acceptability and perceptions of mothers regarding food packages (Aim 2).
3. Assess the understanding of the reason for and the benefit of the food basket (Aims 3).

IDIs were used instead of surveys to collect more detailed information about use and acceptability of package items. It was important to explore reasons for use and acceptance of particular items that may not have already been recognized by staff. Focus groups were not considered due to the desire for household level information.

All in-depth interviews were audio recorded with the participants' consent and conducted in Spanish. All participants were asked to give informed consent. Participation was voluntary and confidential and participants were informed that they could withdraw at anytime. Participants were ensured that they would experience no coercion or harm and interviews were conducted in a private setting.

## Observations

Observations were conducted to further assess use of the food package inside the home (Aim 1). Observations were chosen as a method to supplement IDIs in order to identify how families use the products compared to how they report using the products. Observations were also used to provide a contextual understanding to interview responses about use.

Observations were conducted in six households for 12-16 hours each. Detailed information about what and how all family members ate were documented ethnographically. Quantity of the items that remained in the food package was also listed.

All observation participants were asked to give informed consent. Participation was voluntary and confidential and participants were informed that they could withdraw at anytime. Participants were ensured that they would experience no coercion or harm.

## **Data collection process**

### IDIs

All IDI guides were developed with the assistance of advisors prior to and upon arrival to the site. All IDI guides are included in Appendix A. All IDIs were conducted in Spanish and audio recorded with a digital voice recorder. Verbatim transcription and translation were conducted simultaneously by two students from the Universidad de las Américas Puebla in Puebla, Mexico.

### *Main office and site staff IDIs*

Participants for main office staff IDIs were recruited by the practicum supervisor. Because one of the objectives of the staff IDIs was to learn more about the program as it



related to the package, it was useful to have someone in the organization (the practicum supervisor) choose people who had this knowledge. The practicum supervisor was aware of the study objectives and IDI objectives as well as the nature of staffs' positions. This made her an ideal candidate for choosing study participants.

Although it would have been beneficial to have a greater number of staff IDIs to satisfy main office staff IDI objectives, time constraints only allowed for two. However, the most pertinent main office staff IDI objective, learning program information and receiving an update on current events regarding the package, was easily met with two interviews. Main office staff IDIs were conducted in a small, closed room in the main office of UKA.

Site staff IDIs were conducted with three site staff members. The IDI objective was to assess staff perception of use, acceptance, and appropriateness by capturing what site staff saw and heard from participants. Because staff worked closely with each other and this type of sensory information was thought to be somewhat objective, it was believed that saturation would occur after three site IDIs. The three site staff working for the longest period of time were selected. This ensured that perspectives would be based on a longer period of experience. Site staff interviews were conducted in a private setting in Ometepec.

Staff IDI guides were not pilot tested due to time constraints. Only one day was permitted by the main office for IDIs which did not allow for a pilot test. Main office staff interview responses were used to modify the site staff IDI guide. Site staff IDI guides were not pilot tested due to a small sample of available participants. Of five

available participants, three were interviewed. Also, a large portion of staff interviews were objective because many of the questions sought programmatic information.

### *Beneficiaries IDIs*

Twelve beneficiaries, two in each of the six communities, were recruited for IDIs. This number was chosen to ensure that interview diversity could be achieved by interviewing more than one person in each of the six communities (39). Conducting two IDIs in each community also served as a back-up for data in each community if the interviewee did not elaborate greatly.

Beneficiaries were recruited as participants based on number of children and age of children. Different types of families were sought. Ideally, one of each of the following combinations of children would be represented among the twelve participants: a pregnant woman with a child under six months of age; a pregnant woman with a child under two years of age; a pregnant woman with a child under five years of age; a woman with a child under 6 months of age and a child under two years of age; a woman with a child under 6 months of age and a child under five years of age; a woman with a child under two years of age and a child under five years of age.

Selection was made by using UKA's monitoring system. By using the system, a list of all beneficiaries satisfying the considered family types was compiled. Comisionadas assisted in identifying the women on the list. After identifying the women, each one received an explanation of the study, and was asked for permission to participate. Consent was given by each of the women, and women were given a time and place to meet for interviews. (The time was usually later in the day or the following day).

As women were recruited and family types satisfied, selection of the subsequently recruited women was modified so as gather a wide range of family types.

The interview guide was pilot tested in one of the six communities where interviews took place. The pilot test was conducted in the format described for all other interviews. Based on the pilot test, changes to the interview guide were made as appropriate. Changes made included order of questions and wording of questions. One question (question three), was systematically modified and analyzed quantitatively. The process of change and eventual delivery is detailed below.

All beneficiary IDIs took place in private rooms of the local municipal building or library. Private access was gained to these public community centers by the community commissioner.

### IDI Question 3

Question three of the IDI beneficiary guide was modified after the pilot test and the first two official interviews. Originally this question was asked in an open ended manner, but the pilot test confirmed that the interviewee would need more prompting about each product. After the pilot test, the question continued to ask in an open-ended manner, but was modified to be specific to each product. After the second interview, question three was changed to listing each product and asking specific closed ended questions about each item.

The format of question three was modified to read: 'I'm going to say the name of each product in the package, and can you tell me who consumes it, how many times per week it's consumed, if the product lasted, and whether you buy more of that product

when it runs out?' As each product was listed, each portion of the question was repeated and probed as to why the answer was such.

### Observations

Each of the first three observations was conducted over a three-day period for a total of 16 hours. Observations were conducted over a long period of time to enable the families to adjust to the presence of an observer and therefore act in a manner more closely resembling a typical day. By conducting a three-day observation, it was believed that the cooking and consumption of each meal (e.g. breakfast, lunch, and dinner) would be observed at least once.

Due to illness, my time in the field was condensed and each of the remaining three observations was reduced from three days to two days for a total of 12 hours each. For the first three observations, my approximate observation time in the home was as follows:

Day 1: 8AM - 2PM

Day 2: 2PM - 8PM

Day 3: 8AM - 2PM.

For the remaining three observations, my approximate observation time in the home was as follows:

Day 1: 8AM - 2PM

Day 2: 2PM - 8PM.

All observations varied slightly from the observation times listed based on the eating schedules of each family and the availability of transportation to and from the communities. Limiting observation times for the remaining three interviews may have

slightly affected the families' adjustment to the presence of an observer. However, cooking and consumption of each meal was likely seen in both two and three day observations due to presence in the household at every hour from 8 AM - 8PM.

Similar to IDI participants, observation participants were recruited based on number of children and age of children. Different types of families were sought, and priority was given to include at least one pregnant woman and one woman with a child under six months of age. However, a pregnant woman was never obtained for observation due to a limited number of pregnant women in the sample communities.

Like IDI recruitment, observation recruitment was made by using UKA's monitoring system and conducted exactly as IDI recruitment was conducted. Consent was given by each of the women. After consent was given, participants were asked to guide me to their home, and we decided on a time (usually the following day) for the observation.

Upon arriving at the home at the instructed time, the beneficiary was asked to show items from the package that were stored in the home. Women were also asked to list and discuss items from the package that had not been used but could not be shown. The item and quantity of each remaining item was recorded.

Except for quantity of each remaining item, in-home observations were unstructured. Any instance related to food, whether it involved the package or not, was recorded. This included cooking, eating, not eating (when food had been prepared), breastfeeding, and buying food from a door to door vendor. Conversation regarding the package was also recorded. Throughout observations I acted as both complete observer

and as an observer as participant by engaging with the family in their present activities. All observations were recorded by hand into a notebook and later transcribed in detail.

Though quantity of each remaining food item, relevant verbal information (including verbal confirmation of family distribution of products), and other information related to feeding were recorded, these data were not included in the presentation of the results. The only data presented in the results section are visually observed data about the distribution of targeted products and the use of flour. (Distribution of targeted products includes family distribution and whether food was being stored in another household).

#### Guerrero Community census

Data were also derived from a survey conducted by the Guerrero site staff in 2009. Site staff constructed a survey with the following three questions: ‘Out of the 10 products in the package, which do you use least?’ ‘If there were an opportunity to change one of the products from the package which would you take out?’ and ‘Which product would you request instead?’ The survey was distributed to all of the women in attendance at all community sessions (n=42) conducted within a regular two week cycle. Answers were entered into excel and repeated products were summed.

#### **Data analysis**

All transcribed interviews were read and edited for translation errors, and six of the twelve interviews were spot checked for effectiveness of verbatim transcription by listening to sections of the recording while reading the translation. All transcriptions were then de-identified by removing proper names and replacing them with an accurate

descriptor marked by doubled brackets. Some proper names, such as Ometepec, Un Kilo de Ayuda, and Oportunidades, were not de-identified.

Data were analyzed using content analysis, which is used in qualitative research to focus on specific issues by linking data to external variables such as level within an organization (main office staff, site staff, beneficiaries) and noting occurrence of these specific issues. Content analysis was chosen as a way to link themes and issues to the broader topics of use, acceptability, and appropriateness and to stratify these issues by level within the organization.

Data were analyzed using Qualitative Analysis Software MAXQDA10. All interview guides were uploaded into the program and named according to respective community name or staff position. Variables, as described in Table 4, were created and all variables were assigned to appropriate beneficiary interview transcriptions.

**Table 8. Variables assigned to transcriptions**

<b>Other assistance</b>	<b>No; Oportunidades</b>
<b>Family type<sup>1</sup></b>	< 2; ≥2; <2, ≥2; Preg/yes; Preg/no
<b>Region</b>	Mountain; Coast; Town
<b>Time in program</b>	<1 year; 1-4 years; >4 years
<b>HP<sup>2</sup></b>	Male I; Female I; Male NI; Female NI

<sup>1</sup>Family type is defined by ages of children under 5 years of age in the household. < 2 signifies that all children under 5 years of age are less than 2 years of age. ≥2 signifies that all children under 5 years of age are greater than or equal to 2 years of age. <2, ≥2 signifies that there are children under 5 years of age that are less than 2 years of age and greater than or equal to 2 years of age. Preg/yes signifies that the interviewee is pregnant and has a child less than 2 years of age. . Preg/no signifies that the interviewee is pregnant and has a child greater than or equal to 2 years of age.

<sup>2</sup>HP signifies which health promoter attended to the beneficiary's community. Male I and Female I are the HPs that were interviewed, and Male NI and Female NI are the HPs that were not interviewed.

Six of the 17 transcriptions were then read to identify issues and key themes within the interviews, and memos were written about sections of the data. These memos as well as themes from the interview guide were used to create codes. Codes derived

from the data were inductive, while codes derived from the interview guide were deductive.

After creating a codebook, the first two transcripts to be assigned memos were coded so as to refine the codebook in accordance with issues and themes found in memos. Two transcripts that had not been assigned memos were then coded so as to check the functionality of the codebook with interviews that had not been used to create the codes.

The functionality of the codebook was then checked by searching individually through two codes with a high frequency of coded segments ('Community needs and norms' and 'Money') to see if the segments were concordant with the code definitions given. The same process was repeated for two codes with a lower frequency of coded segments ('Value' and 'Justice'). Checking the codes in this manner refined the way in which coding was conducted for future transcripts. Editing and refining of codes was continuous throughout this process.

Additionally, the functionality of the codebook was checked by asking questions of the data with codes that were believed to be relevant. A list of questions and searched codes are included in Appendix B. Codes proved to successfully address the questions asked, and therefore solidified the functionality of the codebook.

The refined codebook was then used to code the remainder of the interviews. A list of all codes and their definitions can be found in Appendix B.

By searching individual codes, occurrence of issues was counted by number of people that expressed that issue or theme. The questions and related codes used for checking the functionality of the codebook were assessed to decide which codes were most important to explore in depth. Thick descriptions were then written for these codes:



‘Nourishment’, ‘Staff reason’, ‘Reason for package’, ‘Use’, ‘Share’, ‘Selling’, ‘Animals’, ‘Waste’, ‘Family distribution’, ‘Financial situation’, ‘Cost’, ‘Amanene’, ‘Flour’, ‘Marzipan’, ‘Community Needs and norms’, ‘Abundance’, ‘Familiarity’, ‘Sustainability’, and ‘Workshops’. Descriptions were compared between main office staff, site staff, and beneficiaries.

Differences in all created variables were explored for the following codes: ‘Nourishment’, ‘Reason for package’, and ‘Financial distribution’. Only one difference in one code (‘Nourishment’) was found between one set of variables. Because I found little differences in variables, I did not check the remaining codes for differences in variables.

Frequency of issues and comparisons between main office staff, site staff, and beneficiaries as well as qualitative portions of IDI question three were used to answer analysis questions. Analysis questions include research questions, the questions used for checking the functionality of the codebook, and the questions relating to the Guerrero community census.

After analyzing data and using descriptions to explain the analysis questions, conclusions were validated by re-reading data to check explanations supported by data.

### IDI Question 3

The answer to question three was coded in analysis as ‘Specs of use’. The following data were extracted from the interview and recorded in a table similar to the one displayed in Table 8: who in the family consumes the product and why, how many times per week the product is consumed and why, whether the product lasts until UKA



Guerrero community census

For each product listed in the second question of the census, the total number of responses were divided by the total number of respondents to obtain the percentage of women that reported wanting to remove a certain product from the package in exchange for another product.

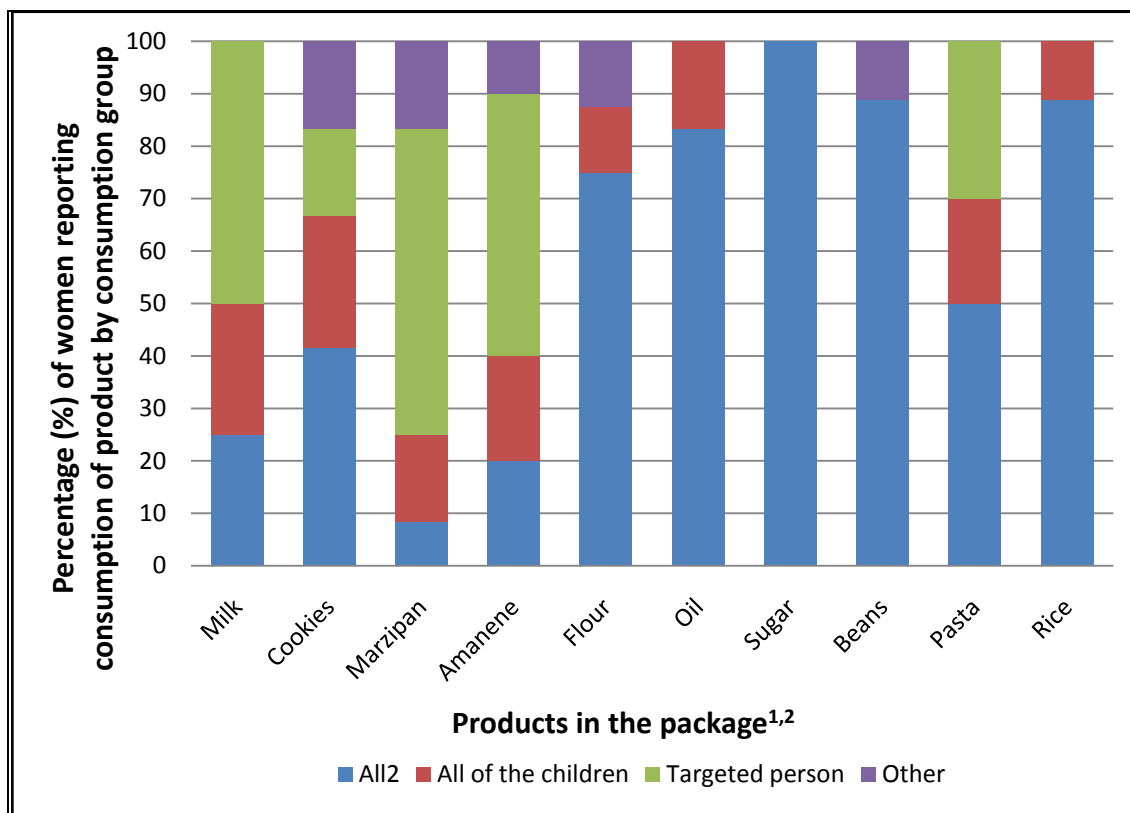
## **Results**

### **Section 1: Use**

#### **Part 1: IDI question 3**

Family distribution, as answered by IDI question three is reported in Figure 4. 50 percent of women report that only the targeted person is consuming milk and amanene, 58.3 percent of women report that only the targeted person is consuming marzipan, and 16.7 percent of women report that only the targeted person is consuming cookies. The ideal data for family distribution of the package is illustrated in Figure 5. If all package items were distributed to the person for whom they were designed, the percentage of moms reporting consumption of the first four targeted products by the targeted person only would be 100 percent. Similarly, the percentage of moms reporting consumption of the remaining six products by all family members would be 100 percent.

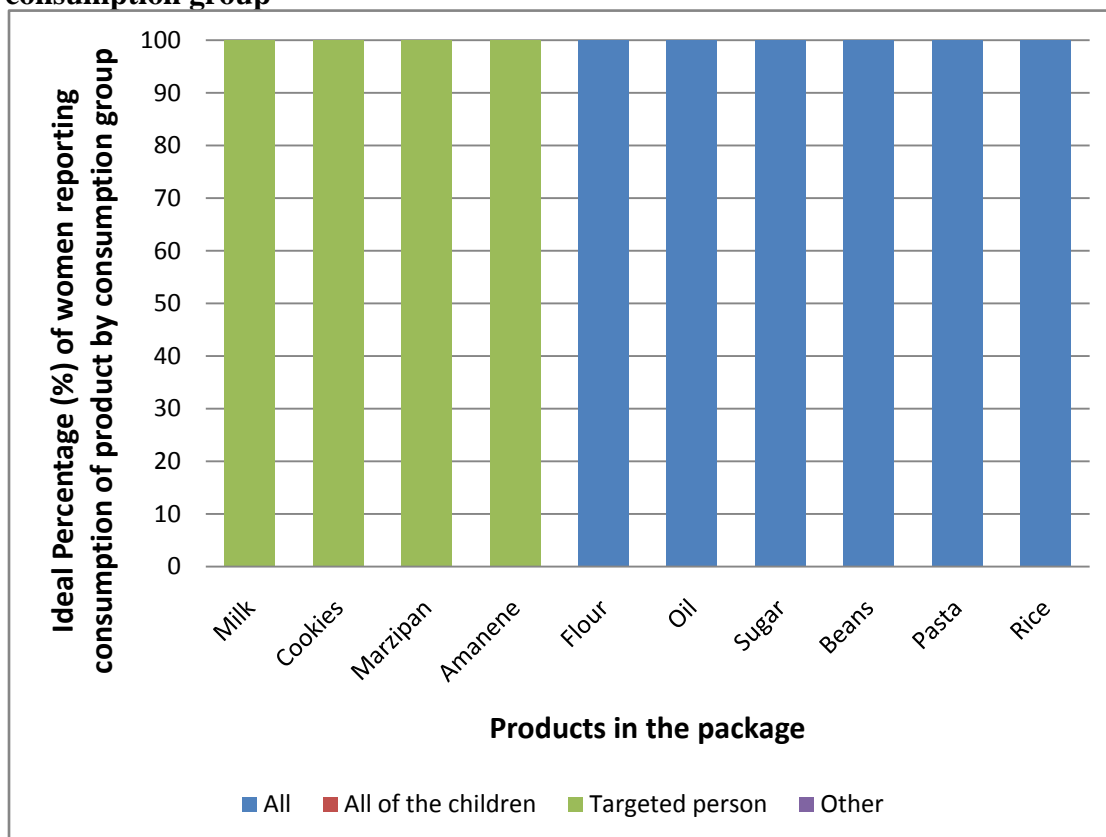
**Figure 3. Percentage of women reporting consumption of product by consumption group (n=12)**



<sup>1</sup> Missings: amanene = 2, pasta = 2, beans = 3, rice = 3, sugar = 2, flour = 2

<sup>2</sup> All signifies that in addition to the targeted person, all other members of the household consumed the product, all children signifies that in addition to the targeted person, other children in the household that did not belong to the program consumed the product, targeted person signifies that only the targeted person or people consumed the product, and other signifies that someone outside of the household, animals, or no one consumed the product.

**Figure 4. Ideal percentage of women reporting consumption of product by consumption group**



Even for those women that said they did not like a product, product consumption was nearly always reported. Often, women that reported that they did not like a product, answered the question by suggesting a person who could eat it or sometimes eats it. There were also women that stated that a product is consumed only so as not to waste it (discussed in more detail in Part 2: IDI data to explain use).

Often, the women that ensure that only the targeted person receives the targeted product, state that it is given to the targeted person because he or she is 'the only one who gets to eat it'. In one instance, a mom said that her daughter knows the cookies are just for her and always tells her siblings, 'it's mine!'

However, when explaining how products are distributed, the mothers that distribute products to people or children that are not the targeted person did not defend themselves for this action. When asked why the person who received the food was the one who received it, moms consistently gave reasons why the product *wasn't* given to other family members. For instance, items such as marzipan, amanene, and pasta, are given to children because the parents don't like those products.

There is one mom who answers that foods are given to all members of the family because there's not access to many other foods in the community.

#### Part 2: IDI data to explain use

Except for specific references to how products are distributed (included in graph above), issues of family distribution are not discussed by beneficiaries. Only one mother admits that all of the members of the family consume all of the foods. Interviewees talk about why certain people get certain foods, but there are no strong attitudes or feelings about this issue. There is one woman who mentions other community members that distribute products to family members in addition to the targeted person. She disparagingly talks about other women who drink all of the milk instead of using it to feed their children (by making atole). However, this is the only mention of such an attitude. Other discussion of household use discussed in terms of acceptance is reported in Section 2: Acceptance.

#### *Alternative uses*

Alternative uses for products in the package include: sharing products with people outside of the household (neighbors, other family members), selling products, giving products to animals, and not using the products at all.

Sharing food products with people in other households is not explicitly mentioned by most of the participants, but there are two ways in which it is mentioned. One woman mentions that if extended family members run out of a food product, she shares products with them because they don't have the opportunity to receive the package from UKA. There are two participants that say they give certain products away (one woman gives away amanene, the other gives away flour) because they don't like those products.

Two instances are brought up about selling products from the package to other community members. One woman mentions that it is common in her community to sell the products. In the other instance, the interviewee discusses a woman who doesn't use any of the products, but saves the products and sells them. Both interviewees speak disparagingly about women that sell the products. They say that people that sell the package don't value it and that the products should be used to nourish the children. "...there are a lot of us who really care about the package because it helps us...but there are also others who...well I think...they just come here to waste their time...because...they say that this lady saved the products and then sold them...so I don't think she needs to be in the program..."

Giving products to animals is mentioned twice. One reference is to flour (because the people have dough and don't use the flour) and the other reference is to amanene (because people don't know how to use amanene). The woman who references the flour says that she gives it to her pigs, as does everyone in her community. While the flour reference is personal, the amanene reference is made disapprovingly toward others. "...there are a lot of people that don't know how to use the food, they don't like the amanene and they don't eat it, and they don't give it to their child, they give it to their



pigs! Yes ...and they give it to the pigs, but not us, we don't waste anything... I give everything to my children, yes I give it to my children and they eat it....'

Wasting products is discussed in one of two ways. One is in regards to understanding the purpose of the products and how to use them, and the other is in regards to a message about waste from the HP. For instance, one mom says that if people wasted any of the products it would be a loss for the children, whom the products are for. Another mom says they hardly buy flour, but since the HPs say not to remove anything from the package, she adds the flour to her family's food to adhere to the rules.

### Part 3: Observation data to explain use

Table 9 details distribution of targeted products and flour within the household as seen in observations. Both milk and cookies were consumed twice, amanene was consumed three times, and marzipan was never consumed. Targeted products may have been eaten less frequently due to shortages in products at the time of the study (often including marzipan and flour).

Cooking and eating of tortillas was observed in every household, but in only four out of the six households was dough preparation observed. In two of those four households, dough was prepared with flour, and in the other two households, dough was prepared with corn. In one of the households that used corn, there was no flour left from the package, and in the other household, there were three kilos of flour left from the package.

Two observed households stored products at their mothers' houses. One of these women lived about 50 feet away from her mother, and said she stored food with her mom because she works during the day and needs help cooking. The mother of the other

woman lived several blocks away, and she said she kept the package there because her neighbors steal products from it. In this household, consumption of targeted products or flour was not observed.

**Table 10. Observed use and distribution of targeted products, flour, and corn (n = 6)**

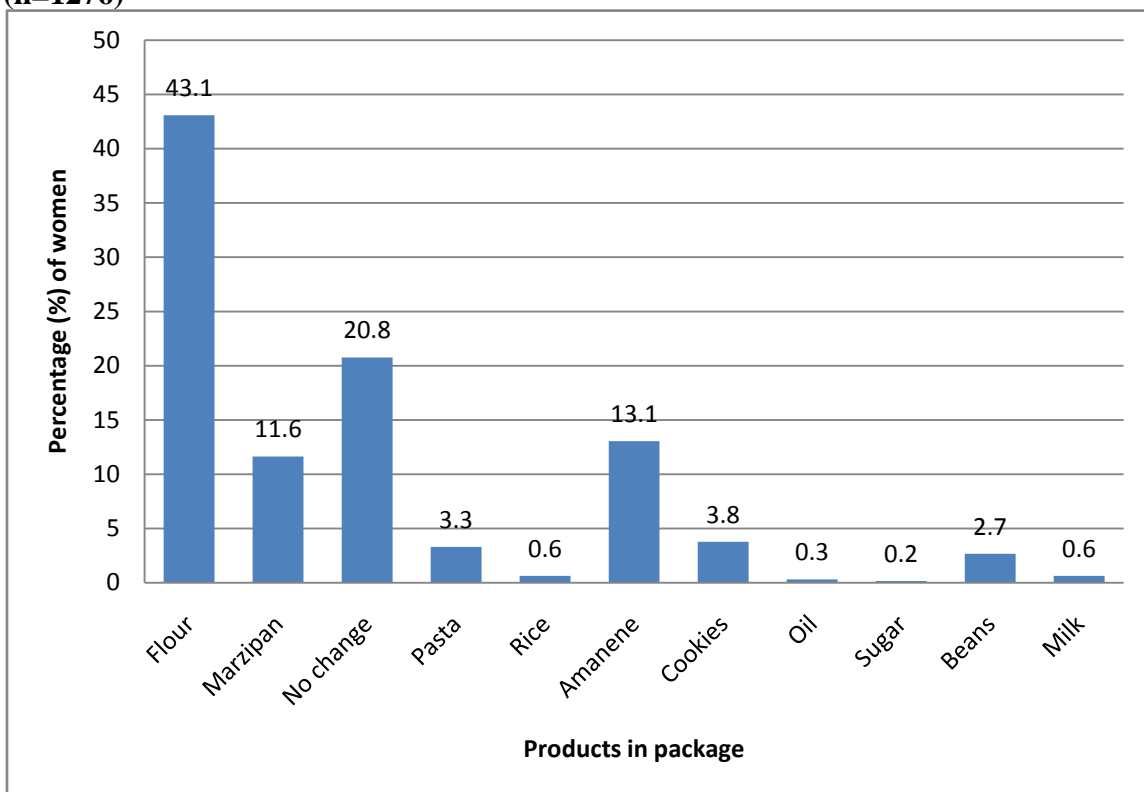
<b>Product</b>	<b>Times eaten</b>	<b>By all children or all family</b>	<b>By targeted person only</b>
<b>Milk</b>	3	1	2
<b>Amanene</b>	2	1	1
<b>Cookies</b>	2	1	1
<b>Marzipan</b>	0	0	0
<b>Flour</b>	2	1	0
<b>Corn</b>	2	1	0

## **Section 2: Acceptance**

### Part 1: Guerrero Census

The census from Guerrero includes 42 communities and 1276 participants. 20.8 percent of women say they would not like to exchange any of the products for another product. The three most reported products that beneficiaries would like to remove are flour, amanene, and marzipan. 43.1 percent of women report that they would prefer to remove flour from the package, 13.1 percent of women say that they would prefer to remove amanene from the package, and 11.6 percent of women that say they would prefer to remove marzipan from the package.

**Figure 5. Percentage of women that report wanting to remove a certain product (n=1276)**



The major theme identified for why communities use the three products of highest non-acceptance (flour, marzipan, and amanene) less than other products, is that the products are not normally sold and used in the area. The products' novel status in the region accounted for all of the reasons for not accepting the products. These reasons are explored below by examining acceptance of each product. The following themes occurred for multiple products: familiarity of a product (flour, amanene, and marzipan) and regional abundance of a product that is grown and harvested locally (corn and beans). Themes of familiarity and regional abundance of a product are discussed within respective product explanations.

Discussions of community food availability may help to explain the potential relationship between a product's novel status and its' non-acceptance. Any discussion

about products that can or cannot be purchased or found in the community is therefore discussed below.

*Community food availability*

The majority of women discuss, in some form, the normal food habits of the community. This includes which types of foods can be purchased in a community and which types of foods are grown in the proximate region.

Four of the interviewees specifically mention that all of the products that are included in the package can be found in stores except for the amanene and the marzipan. They noted that though women look for those products, they are not able to find them in stores. One woman explained that because the marzipan can't be found in the community, she buys potato chips for her child when he asks for marzipan.

The certainty of powdered milk availability in some communities is discussed. Women say that people mostly buy cow's milk in the community, but that the increasing availability of powdered milk has greatly changed the consumption pattern from cow's milk to powdered milk. Reasons for purchasing powdered milk instead of cow's milk are that powdered milk is the same price as cow's milk, cow's milk upsets babies' stomachs, and that powdered milk (as opposed to cow's milk) has vitamins and minerals.

The availability of food, particularly vegetables and beef, is mentioned as a problem for some communities. "...because there's nothing that they sell here, this community suffers a lot that there aren't [people] who come to sell for example, vegetables they come once a week, this week is two weeks since they came last; because the road is in poor condition, and sometimes we don't have anything to buy here." Conversely, there are women that say that some vegetables and herbs are grown in the

region but are not eaten because the people think that they are “too insignificant”. The woman did not explain her use of insignificance.

Within the theme of community food availability, the theme of sustainability emerges. One mom specifically highlights lack of food product sustainability by saying that it’s important for moms to take advantage of receiving the UKA products while they are in the program, because one day they won’t be able to get the products anymore (when they leave the program). “So I tell them to look at the bright side, right now the ‘kilo’ is here, but tomorrow it will leave, so you came, you took advantage of it...”

#### *Flour acceptance*

IDs verify non-acceptance of corn flour. Women that do use the flour discuss the fact that although they use it, they only use a small amount and add it to the corn made dough. One mom says that she only does this when she doesn’t have enough of the corn made dough. Other moms say that they use the flour so they don’t waste it. ‘...the flour is part of the package, and they say they can’t remove it [the flour] from the package, so we use it so we don’t waste it. Aha, to not waste the product that’s part of the package, so we use it anyway, even if it’s just a little bit, just so that we don’t damage it [the package].’

Four reasons for not accepting flour are identified throughout interviews and all were stated in the context of maize being grown in the area: moms already have corn so they feel that they don’t have a need for flour (whether it be an economic need or a physical food need), flour doesn’t cook as well as corn, flour tortillas don’t satiate, and tortillas made with flour taste different than tortillas made with corn.

Of those reasons stemming from the local corn harvest, how the flour cooks and that it does not satiate were the issues brought up by the greatest amount of women.

‘...the ones made out of corn are better because if you eat two or three...you get full...and with the ones made out of flour you don’t...because when my children eat them...they want more 30 minutes later...’

#### *Amanene acceptance*

Most women (10 out of 12) talk about acceptance of the amanene, whether positively or negatively. Acceptance of amanene is discussed more times than acceptance of any other product in the package.

Of the twelve women interviewed, only one explicitly mentions that her child likes the amanene. A number of women did say, however, that they liked the amanene specifically because they could use it to make atole.

A number of women specifically say that they and their families do not like the amanene. This is often coupled with a dialogue about how amanene sits in the house for a long period of time because it is unused. Disliking amanene is also correlated with instances of alternative use, such as giving the product to animals and giving the product away to someone in another household. ‘The truth is that we don’t consume it; I give it to my sister. I don’t like it, I think it tastes like anise, that’s what I think, I tried to drink it once, but I threw it up. So I give it to my sister because her daughters drink it.’ Reasons for non-acceptance of amanene include community unfamiliarity of the product, ‘it was unknown for us’, and the community’s uncertainty about how to use it. Both of these reasons stem from the fact that amanene is not sold in the communities.

A different perspective of amanene acceptance is gleaned through mothers' discussion of the benefits of the product (as learned from HPs). Moms say that they're interested in the package because now they are able to provide their children with amanene, a product that has high vitamin content and that keeps the children from getting sick. '...we didn't used to consume the amanene, and I'm interested because my girl is getting used to consuming it...I'm also interested because through the package they explain to us what we can do with the amanene. That's why I'm interested. They say that the amanene helps the child to get to the right weight and that it doesn't hurt him, that's why I'm interested.'

A similar sentiment about the benefits of the products is also found for mothers of children that don't like the products. "...yes because...sometimes he chokes with it...because it has...flakes or something like that...so he doesn't like it... but I have to give it to him...because [[name of the HP]] tells us that it is good for our children...so I give it to him..."

The flavor of the amanene plays a role in the acceptance of the product. Women make it a point to explain how much a child likes one flavor, but not another. "Well...he spits it out [when it comes in the flavor he doesn't like]...or he pushes it away...he just doesn't want it..."

### *Marzipan acceptance*

From interview data, there is mixed reception of the marzipan. "Well...we don't really eat a lot of marzipan because it is very sweet...children don't like it a lot but...they like it". Many women say that people don't eat the marzipan, and offer reasons mostly based on taste. However, a comparable number of women also talk about children's

enjoyment of the marzipan. One woman states that the candy always gives the child indigestion. She does not, however, state this as a reason for not accepting the product; on the contrary she notes that her child likes the marzipan and always eats it.

Except for in one case, reasons that people don't like marzipan are all based on taste. Women usually say that the marzipan is too sweet, or offered a general statement that they, their children, or other people did not like the marzipan. "When I don't have anything else to give him...I give him the marzipan...and he eats it... but the marzipan lasts us long because he doesn't eat it a lot...I don't know why... maybe because it is very sweet... they just gave it to me today...and who knows how long it will be until he asks for it...he doesn't eat it a lot...I think he doesn't like it..." In the one exception, one woman said that marzipan had low acceptance because people didn't know how it was made.

Half of the women cite marzipan not being sold in stores as the reason that women don't buy more of the product. One woman mentioned that she looks for the product when she is in a bigger town, but can never find it.

Other than the reference that moms don't know what marzipan is made of, the unfamiliarity of marzipan as a theme was not identified.

#### *No product changes*

From interview data, mentioning that they would change nothing in the package is correlated with positive remarks about the package, the program, and a desire to follow HPs recommendations. Reasons for liking the package as a whole are discussed below in Part 2: Acceptance of the package as a whole.



There are also women that offer a product specific approach to answering why they would not like to change any of the products in the package. Products specific answers reference taste (referring to personal and/or family enjoyment of a product), necessity of what are considered basic products (beans, rice, oil), and answers about amanene and marzipan, which are discussed below.

## Part 2: Acceptance of the package as a whole

### *Positive feedback*

When moms were asked what they like about the package, they either list specific products that they like, or they talked about ways that UKA helps them. In exploring ways that women feel that UKA helps them, four women identify that the package is a help without detailing the reason, ten mention that it helps because it's nourishing, and eight mention that it helps the family because of cost. When moms were asked what they thought was the reason UKA distributes the package, moms (11) once again cite nourishment and cost. The reason is to provide nourishment (10) by helping undernourished children by providing nutritious food (7) or providing a way for families to be fed (4); or to provide a cheaper option for food to a poorer population (4). Any discussion of the connection between UKA and the community often related what the community at large and other women in the program found valuable about the package as it related to the program. Both nourishment and cost were once again identified as benefits that the program in general provided to beneficiaries.

Therefore, to explore why women are interested in the package, the themes of nourishment and cost are described.

*Positive feedback: Nourishment*

The majority of beneficiaries (ten out of twelve) discuss the package being nourishing. The idea of nourishment is expressed in two ways: having nutritional value or fulfilling hunger.

Some women only bring up one perspective or the other, but many women express both perspectives. The majority of women expressing the first idea (nutritional value), express it in terms of children's weight gain. Some women also explicitly mention that the products in the package have nutritional value. Women also often say that the products are 'good for the children'.

Women expressing the second idea (that it fulfills hunger), express that the package is often the only thing they eat and that it is something to 'feed the children'. In this way, the package prevents the children and the rest of the family from being hungry. "[[name of HP]] comes and gives the package to support us, she gives the food from UKA. Here we need a lot of help, sometimes we have enough to eat and sometimes we don't." Discussion of hunger fulfillment is correlated with discussion of the financial situation of the people as it relates to job availability. "For example, when my husband doesn't work...or when he doesn't get paid every day... I see what I have...and if we have beans and rice...that's the only thing we eat..."

The availability of food is also talked about in terms of certain types of foods. "We have to go to the countryside to look for things to eat, and if we don't do it like this, then we don't eat. We are people with little access to eating fruits; we only eat the fruits from the harvest of the region." A small number of women express a contrary

perspective by saying that they would eat whether they had products from UKA or not. “Yes... we’re not going to stop eating just because they don’t give us packages ...”

*Positive feedback: Cost*

All 12 interviewees discussed cost of the package in terms of it being a benefit or a detriment (discussed below under complaints). Cost of the package was often mentioned as a benefit and a detriment in the same interview. Many women noted that the package was both too expensive and less expensive than products in stores. Nine of the women talked about the cost of the package as a benefit, and eight of the 12 women specifically mentioned the cost of the package as being a help to families.

Interviewees indicated the price of the package was a benefit by explaining that if there wasn’t a package, the women would have to buy the products in a store, which would cost more money. This idea is frequently repeated in interviews and is often expressed by verbally comparing the price of products in stores to the price of the package and also by women noting that the package is, “a good deal”.

Cost is often the answer to what they and other women like about the package, and why UKA distributes the product. “...because they help me a lot...because... well... sometimes here there are no jobs...or anything to do...so...getting our package when we don’t have money or jobs...is really helpful.” The high cost of travel to access products is discussed as well.

Specific products that come in the package are listed as being so expensive in the store that women do not buy them: five people mention this about milk, two people mention this about oil, two people mention this about sugar, and one person mentions this about beans.

Cost is also talked about as a benefit in terms of relationships with husbands. Husbands are satisfied because the family is saving money by not having to buy the products in the store, and also because their wives are no longer asking for money on a daily or as-need basis.

In terms of the communities perception of the price of the package, four woman state that other women and community members say the package costs the same price as products in stores. One woman mentions that other people in the community are jealous of the money saved by the women, but they understand that they can't get the cheap package, because they are not eligible for the program.

*Negative feedback*

Complaints were often discussed in terms of the relationship with UKA and the community, and often focus on a decrease in participation in the communities. Complaints were frequently discussed in terms of what other women didn't like about the package as opposed to what the interviewee didn't like about the package. Women generally stated the complaint passionately but assured me that the stated issue was not a problem for the interviewee, only for other women.

The three main complaints about the package as a system were cost, that products in the package had been reduced from a whole kilo to a half kilo, and that sometimes the package arrived without certain products.

*Negative feedback: Cost*

Cost of the package is the most frequent complaint of the women. "But there's a disadvantage because we are people from a low economic level and ... well people say it's a little bit expensive, aha, it's a little bit expensive, that's the only detail that 'Un

Kilo' has.'" Nine women express that there are many other women who don't have money for the package or don't attend sessions (or even join the program at all) because the package is too expensive.

Reasons for complaints about the cost of the package include that the price of the package has increased (although one woman notes that it is still worth paying the higher price for the products they receive), that the package cost was not reduced when the package size was reduced to a half kilo, and that families don't have the money because there are no jobs. '...well...my son goes to school...so sometimes we don't have enough money...and my husband doesn't work every day...he does work...he's a farm laborer...but...sometimes he doesn't get paid on time...so there are times when we don't have money to buy the package...'

Interviewees note that many women have left because of the price, and discussion of this is related to a misunderstanding between the HPs and the moms about why the package price is increasing. "We have asked many times...to the guy who comes... [the HP]...to lower the price of the package...but he told us that...he can't do anything about that...that he doesn't really know...yeah so he tells us 'this is what the package costs...so we have to sell it like that' and well...we want the package to be a little bit cheaper..." There is one woman who admits that she thinks the HP is profiting off of the women by increasing the price and pocketing the money.

Seven of the twelve women discuss personally having to find, obtain, or borrow money to buy the package. Many of them discuss this casually, as if it is simply a component of the process of receiving the package. There are also those that discuss obtaining money as a hardship, and say that some weeks they are not able to buy the

package because they can't find money. One woman discusses it as an embarrassment. She says she sometimes can't get the package because she is embarrassed to ask for the money that it costs to purchase the package.

*Negative feedback: Half kilo*

Many women complain that sugar and rice were reduced in quantity from a whole kilo to a half kilo. Many women discuss the change in a bitter way, highlighting it in every part of the discussion. '...what we finish right away is the rice... the sugar because it's a half kilo. The rice and the sugar.' One community began to call the program by the name, "Medio kilo", meaning half kilo. "...but right now I'm not mad with 'un kilo' because they give less, because the women now say 'it's not a kilo of help, it's half a kilo of help'".

*Negative feedback: All products*

A frequent complaint is that packages often arrive without certain products. At the time of the study, UKA's financial problems lead to shortages in supply of products for several weeks at a time. Women complain about this in terms of the damage it does to their budget that particular week. On these occasions of missing products, women still had to pay the full package price to receive some items from the package in addition to having to purchase the missing products in stores (if the missing products were products they wanted or needed).

### **Section 3: Appropriateness**

#### Part 1: IDI data to explain perceptions of the reasons for package

Main office staff say that the reason that the package is distributed is to decrease malnutrition while sustaining the eating patterns that already exist within the communities by providing foods that people already eat. One main office staff member says that if the package is having no impact on malnutrition, it should no longer be distributed.

Site staff also say that one of the reasons for distributing the package is to decrease malnutrition by saying that the package helps children to gain weight. Site staff also mention that the package is distributed to help the moms economically. In comparison, moms responded that the reason UKA distributes the packages is to provide nourishment and to provide food products at a low cost.

In addition to reasons for the package, site staff list the following benefits of the package: that the package provides food that families otherwise may not have access to, "...the package helps a lot...regarding the food...because food is scarce"; that through the package they can teach the women how to prepare food; they can get the moms attention; they can set and utilize rules; they can help "develop a sense of organization within the community" and "show to themselves...that they are capable of doing things on their own" through the system of package delivery; and keep them from spending money on useless things because they have to save money for the packages.

## Part 2: IDI data to explain differences in perceptions between staff and beneficiaries

### *Flour*

Main office staff members do not address the issue of flour non-acceptance. Site staff are well aware that the moms would prefer to have other products in place of the flour (because of regional growing status) and relate that the main office is aware of this issue, but distributes flour despite knowing that it's not accepted. There is one site staff, though, that contends that moms prefer to use the flour and sell the corn.

Moms cite multiple reasons for not accepting flour, all of which are related to abundance of maize in the region.

### *Marzipan*

Main office site staff members explain that marzipan is included as a present to the child to say thank you for attending. Due to this, marzipan is eaten during the UKA session. This is confirmed by site staff. This is acknowledged by one of the moms as her reason (because it is a gift) for not buying more of the marzipan when it runs out. Main office staff say that marzipan is found in all parts of Mexico in many stores. Site staff completely contradict this by saying that marzipan is not found in the region. Site staff say the women are not familiar with marzipan and must be taught how to use it so they don't waste it. Beneficiaries also state that marzipan is not found in the region. One woman confirms the idea of needing to be taught to use it by discussing the fact that women don't know what the marzipan consists of.

### *Amanene*

Main office staff note that there is a problem with adoption of amanene because women don't like it and don't know how to use it. One main office staff member says



that women don't know how to use it, but when they learn how to use it, they like it. The other staff member, while noting that the acceptance of amanene is one of the successes of the program, later says that it gives UKA a lot of problems because of low acceptability. One staff member says that complaints about the amanene are small- such as moms wanting different flavors of amanene. Desiring different flavors of amanene was, indeed, frequently expressed by beneficiaries.

Site staff also discuss the fact that women don't use and don't want amanene. They say that out of the moms that actually try amanene, only a few of them adopt it and that moms would really like it if they changed the amanene to another product. Other reasons for non-acceptance, in addition to unfamiliarity, are that women say it tastes 'different', looks 'different', and is 'too sweet'.

Site staff say that women are not familiar with the amanene because it's not found or attainable in their communities (or in the area at all) and therefore it takes a lot of convincing to get the women to use it. Staff see it as their job to introduce the women to the amanene, teach them how to use it (because of the specific preparation amanene requires), and teach them about the benefits it gives. Staff believe that if the women aren't taught how to use the product then they might waste it. The idea of familiarity of amanene and having to teach the women to use it is repeated frequently by site staff. Site staff acknowledge that getting moms to accept amanene in other states might be easier, if it's familiar to them there.

There is very little recognition by site staff of positive acceptance of amanene. These staff members say that barely any moms ask for an extra package of amanene, but

there are some moms that accept it for the benefits it brings. This is confirmed by beneficiaries that talk about the nutritional benefits amanene has to offer.

Site staff say that the children will eat amanene, but moms don't accept it so they don't feed it to their kids. They also say that the product itself is good, but that it's not making much impact because there is low acceptance. Site staff say that the main office has been alerted to the non-acceptance of amanene, but there has been no change.

There is high non-acceptance of amanene from beneficiaries stemming from community unfamiliarity of the product and not knowing how to use it.

#### *Community needs and norms*

Main office and site staff confirm that the package was designed to conform to the usually eating patterns of the communities. "...because those are the products that people at the communities usually eat...for example...the flour...can be used to make tortillas..." The package was put together using products that could be found in most regions of the country so they can be distributed everywhere with no need to change it depending on the region.

Site staff say that because amanene and marzipan are from a different part of the country, UKA conducts an "intercultural exchange", which is described as a food culture exchange, when new products are brought to the region. Site staff members express the desire for a package that is designed according to the needs of each state.

Site staff say that vegetables and meats are not easily found or accessible in the communities, so even though the package is intended to increase money saved in order to buy those things, women aren't able to buy them. This is confirmed by beneficiaries who talk about the low availability of meat and vegetables.

Site staff report that when they conduct workshops, they often accidentally ask for foods that are not found in the region, but talk about the matter very light heartedly. They say they do intend to make the recipes conform to the food culture of the regions and for the families to eat more foods that are found in the region (particularly vegetables that are grown in the region but not usually consumed). Beneficiaries do not mention learning to use products that are grown in the area, but they do mention not being able to find or buy ingredients from the recipes taught in workshops.

Sustainability is explicitly mentioned very little by staff (as with beneficiaries). Main office staff don't think that kids will miss marzipan or cookies when they exit the program because there is a high availability of cheap candies in the communities. Conversely, site staff think it's not a good idea to teach the moms (by distribution of products or by workshops) how to use a product that they can't find in the region, because once they leave the program they won't be able to find it anywhere. They think that it would be better to distribute products that can be found in the region. Beneficiaries complain about products that are unfamiliar to them, but don't explicitly pose the issue of sustainability.

### *Nourishment*

Main office staff is concerned with being able to address the issue of malnutrition. Site staff is concerned with being able to provide food as well as good nutrition to the appropriate target by relating the message about nutritional benefit of the package for the children. Health promoters express in a frustrated manner that they do not think the women understand or care that the package is meant to provide good nutrition.

Moms constantly mention that the benefit/reason for the package is to feed the children and to provide food of high nutritional value to undernourished children. Moms see good nutrition as both a benefit and a reason for the package.

### *Cost*

Main office staff talk about the package as being a “good deal”, because the women have the opportunity to get the products at a lower cost. Site staff confirm this by also stating that the price is a deal for the women. “You’ll also get to see a lot of satisfaction because they have the possibility to get something for a very low price...” This is overwhelmingly confirmed by the women as well, who also talk about the package as being a good deal.

One main office staff member talks specifically about the high cost of milk in stores being prohibitive, and beneficiaries confirm this by repeatedly talking about the high cost of milk and a few other specific items (oil, sugar, and beans).

Neither main office staff member mentioned the cost of the package being hindering to the women, though site staff say that the main office knows that the price of the package hinders women’s participation. All site staff say that the moms’ main concern is the price of the package. They say that the moms compare UKA to other programs where they get things for free. “...and that’s where they start comparing it to *Un Kilo*...they wonder ‘why are they giving me this for free... and you [UKA] who have been here longer...and you haven’t given us anything for free..’” One site staff member notes that women only care that they get the package and that it is cheap. The most frequent topic from beneficiary interview data was cost of the package. Beneficiaries

don't make comparisons to other programs, but they do say that there are women that only care about getting a cheap package.

Site staff say that the increases in price have been particularly burdensome, and participation is greatly reduced when the price of the package increases. Site staff feel helpless to change the situation, and they discuss the detriment of having to charge the women even when the package is incomplete. They say that having to pay but getting fewer products is a major complaint of the women. Increase in price and receiving insufficient products for the same price are indeed frequent complaints of the women.

#### *Family distribution*

Main office staff don't know whether other members of the family are consuming the products in the package. However, one main office staff member stresses that "if the package *is* being consumed by the family and not by the child, then it wouldn't make any sense to keep delivering the food." Both HPs admit that they also don't know how families use the products. They say that marzipan is the one thing that they know that the kids get because they see the kids eating it right away at the sessions. All staff stress that this (knowing who's eating the food) is an important thing to discover.

All site staff do mention targeted products being shared with other members of the family. All of them note that the moms see sharing with the whole family as the most practical option due to financial constraints. They explain that the culture of the region dictates that every person in the family eats the same food, so food is not cooked separately for children. They also explain that moms make things altogether because making food for only the smallest children isn't fair to the rest of the family. Therefore, moms make food for everyone so they won't have problems with the older children (e.g.

they make atole with the amanene). They also say that it's more important to the moms to feed their husbands and the older children because they go to school and work.

One site staff mentions that another reason that beneficiaries share food with the whole family is that they cook with an open fire stove, and it's not practical to use the stove several times a day to cook separate meals. The staff member notes that storage is a problem because moms don't have refrigerators, and therefore they have to eat everything they make on the same day. Because they consume foods all on the same day, the child gets the least because he can physically drink the least. The staff member also mentions that when food is shared with everyone, the smallest children often get the smallest share. The claim about storage and refrigerators was refuted by observation data. In the majority of observations, refrigerators were seen. In cases where refrigerators were not seen, their existence in the household was made known. Family members in all observations used leftover tortilla dough and ate food that had been made for a previous meal.

Staff say that food from the package is often the only food the family has. Though the package is supposed to cover 20% of a family's needs, it often covers 100%, because it's the only food they buy. This is mentioned in terms of money: if moms spend all of their money on the package, they can't buy any other food and therefore must use products from the package to feed the whole family.

Site staff talk about widespread family use of targeted products in respect to understanding the message that the four targeted products are only for the children. One site staff member maintains that the moms do understand the message; they just can't adhere to this recommendation. Another staff member confirms this by saying that to

actually translate the message into action is complicated because the package is an opportunity for the whole family to eat. However, the third site staff member thinks the women don't understand, but if they did, they would be able to 'obey'.

From IDI question 3, it is clear that targeted products are being shared with other family members to some degree. It is unclear from interview data whether women truly understand that targeted products are only for the targeted persons, or whether it is simply not possible to adhere to this principle if they do understand.

### *Share*

Beneficiaries explain that products are given to other households because they don't like the products or because they want to share with other families that are not eligible to receive the package from UKA. Site staff do not recognize either of these types of instances, but do say that women share products with people that come to visit beneficiaries' homes. "...and if someone stops by then they also get to have some..." Main office staff do not address the issue of sharing products with members outside of the household.

### *Sell*

Though beneficiaries discuss the fact that some women sell products from the package, main office and site staff do not mention the possibility of this occurrence. However, there is one site staff member who mentions that women sell milk that they receive from another program that distributes powdered milk.

### *Animals*

Though beneficiaries discuss the fact that some women give certain products to animals, main office and site staff do not mention the possibility of this occurrence.

*Waste*

Main office staff do not mention the idea of products being wasted. Site staff mention that teaching women how to use the amanene is crucial so they don't waste it, and that sometimes they waste it because it's not easy for them to adopt because they don't know how to use it. Beneficiaries also express the idea that people waste products when they don't know how to use them.



## **Chapter 4: Discussion, Recommendations, and Conclusion**

### **Discussion**

From observation and interview data, it was found that targeted products are not always given to only the targeted person. However, targeted products are not always shared with all of the family either. Reasons for not sharing targeted products with all of the members of the family are that the family acknowledges that the product is only for the child, or that the family does not like or have a need for that particular item.

Milk may be given to only the targeted person because milk is naturally seen as a product that is for children. Marzipan may be given to only the targeted person because parents and older siblings think it's too sweet or don't like it. Also, the marzipan can be eaten immediately, and therefore family members that are not present when the marzipan is distributed are less likely to consume it because it has already been consumed. Though there is a high number of women that report that amanene is given only to the targeted child, IDI data do not explain this. Women usually say they do not like the amanene, or that they can use it to make atole or other dishes that will be used to feed everyone in the family. The mom that explicitly stated that her child likes the amanene, also expressed intensive interest in the nutritional value of the product. It may be, therefore, that moms who feed the amanene to only the targeted person are moms that both understand and desire to provide nutritionally rich products to their children.

Of all of the targeted products, the least number of moms that reported that a product was being given exclusively to the targeted child was for cookies. Observation

data explained that cookies were a common food for families to eat for the first and last meal of the day. Therefore, the family has little reason to give the cookies to only the targeted person, when they may eat cookies everyday anyway. For those households in which the whole family eats the cookies, the targeted person is not receiving the whole package of cookies. However, it may be that the targeted person is receiving the same quantity of cookies if families purchase them for daily meals.

Cookies are the only targeted product that families already consume as a unit. It may, therefore, be unreasonable to distribute cookies to only the targeted person when families are accustomed to eating that product together.

Beneficiaries never defended distributing targeted products to other family members. One can make inferences about why beneficiaries shared products with all members of the family, but the women themselves never specifically gave reasons for this behavior. Site staff suggest reasons why family members share products with the whole family: it's sensible economically, not fair to the other family members, there's no food to feed the other family members, and it's culturally normal and appropriate to feed everyone in the household the same foods. The reasons mentioned are confirmed by women throughout IDIs, but never as a justification to use targeted products for this purpose. This suggests that women feel no sense of guilt about not using the package as recommended. It is not clear whether this is because they don't understand the recommendations or whether they think the recommendations are not sensible. Considering that beneficiary IDIs confirmed what site staff suggest as reasons for sharing, it seems as if moms share targeted products because the recommendations are not sensible. Also, moms constantly mention that the reason for the package is to feed

the children and to provide nutritional food to undernourished children, implying that they are well aware of the benefits, but the knowledge might not be translatable due to other barriers (money, having to feed all of the children, etc.)

However, considering the fact that moms that expressed great interest in nutritional value also tended to give targeted products to only targeted people, it also seems likely that those that truly understand the recommendations are adhering to them. This would imply that those that share products do not understand the recommendations.

It is likely the case though, that those who understand the recommendations are more likely to adhere, but in many cases those that understand are still not able to adhere due to other barriers. In a previous study of the acceptance of the nutritional supplement of Oportunidades, recommendations increased all supplement specific behaviors, except for in the case of directing the supplement at only the targeted person (Bonvecchio, 2007). Assuming the results of that study are generalizable to the population in this study, it can be implied that recommendations are often heard and adhered to when possible but that it is difficult to adhere to this particular recommendation (directing the product at only the targeted person).

Other reasons besides non-feasibility and lack of understanding may also keep mothers from following this recommendation. It may simply be that the women feel they have no responsibility to the recommendations because they purchased the products and feel that they have the right to use them as they choose.

All staff, main office and site, report that they don't know exactly how the products are being used in the household. Site staff, however, have a very deep understanding of how targeted products are being distributed in the household and why.

Main office staff have a shallow understanding of family distribution of targeted products. One staff member says that if targeted products are being shared with the whole family, the package no longer serves its purpose (to decrease childhood malnutrition). Observation and IDI question three data reveal that targeted products are being shared, therefore confirming (according to this perspective), that the package, as it was designed, is not serving its purpose.

Census and IDI data confirm high non-acceptance of certain products. In previous studies detailing the formation of the nutritional supplement of Oportunidades, acceptance was evaluated on the basis of earlier food aid programs failing due to non-acceptance of products (Rosado 2000). Acceptance of these products, therefore, is potentially quite important for the success of the program as a whole.

All instances of high non-acceptance of products were related to the inability to purchase or find the products in the region. Half of the women cite marzipan not being sold in stores as the reason that women don't buy more of the product. This implies that women would buy the product if it were accessible. A similar answer is given several times for amanene. However there is a stronger sense of non-acceptance of amanene because of the special unknown preparation involved. It may be that marzipan is more easily acceptable because of its presentation as a candy and the lack of preparation involved. Main office staff confirm that amanene is not for sale in the market in any part of Mexico, implying that unfamiliarity of amanene may be a problem for other UKA sites as well.

There is one example from the data explaining the change in consumption pattern of cow's milk to powdered milk when it became available for purchase in the region.

This may indicate that the ability to purchase a product influences acceptance of the product to the wider community. However, there was clearly no consumption of powdered milk before it was sold in the area, so it may be that powdered milk was a desired product anyway.

There are gaps that exist between staff perceptions of use and acceptance and actual use and acceptance at the household level, particularly for main office staff.

Site staff are generally very aware of use and acceptance of products, and are often able to discuss issues that the women face more candidly than the women themselves (as is the case for family distribution of targeted products). However, site staff do not recognize instances of alternative use of products such as giving products away to neighbors, selling the products, or giving them to the animals (Which main office staff also do not recognize). Site staff also talk very discouragingly about the beneficiaries not understanding the message that the package is for improving the nutritional status of the children. However, beneficiaries often discuss the nutritional value of the package, suggesting that they do understand the message, at least to some degree.

Both main office and site staff are well aware of the issue of cost as positive and negative. What main office and site staff don't mention about cost is the way it affects beneficiaries' relationships with other people. Beneficiaries mention that the cost of the package is helpful and pleasing to their husbands (except for in one case, where it is the opposite), that it makes community members jealous (because it is low cost) or ridiculing (because it is high cost), and that it causes them to have to borrow or ask for money from neighbors and families (which can be embarrassing).

Gaps between main office staff perceptions and actual use and acceptance are greatest in two areas: family distribution of targeted products and non-acceptance of products that are not found in the region. Main office staff do not mention the idea of flour or marzipan non-acceptance. They report that marzipan is a candy that can be found in all of Mexico and for that reason is a good addition to the package (to sustain what families already eat). However, these staff may not have known that corn is grown in the region and marzipan is not sold there. They do express the idea of non-acceptance to amanene, presumably because this is a common problem in all sites, due to the fact that amanene is not for sale in the market in Mexico. Main office staff may not have expressed the issues of non-acceptance to flour and marzipan because of their unfamiliarity with Guerrero. This implies that main office staff might have expressed a different perspective on these products and perhaps the package in general had they known that these products are not typically purchased in the region. It would be interesting, therefore, to learn the perceptions of those main office staff that are familiar with Guerrero. If these staff *are* aware of the issues, it seems unfortunate that awareness is not being brought to other main office staff about non-acceptance of three out of ten products in one of the fifteen UKA sites.

Main office and site staff explain that the package is designed to sustain the eating patterns of beneficiaries by providing products that are already consumed in the households. However, sustainability is not achieved if two out of the ten products (amanene and marzipan) are not sold in the region, and one of the ten products (flour) is not normally purchased due to corn crop harvests in the region. If mothers accept and

use the products, sustainability of the new products cannot be maintained when the mothers must exit the program or UKA leaves the community.

It is prudent to bear in mind that the package was designed according to nutritional value of products, which is of greatest relevance. While acceptance of the products is crucial to uptake, and uptake to effectiveness of the intervention; any modification must first take into account nutritional value. Marzipan, for instance, is one of the three products with greatest non-acceptance, but its nutritional impact is likely to be low because of low distributed weight and low respective nutrient content. Therefore, non-acceptance of this product may not be as relevant as the non-acceptance of products with higher potential nutritional impact, such as flour and amanene.

### **Strengths and Limitations**

Strengths of this study include multiple methods to assess use and acceptance. Observation, though not a focus of the report, visually confirmed themes described in interviews. Other strengths include obtainment of interview data at all levels of the program (main office staff, site staff, and beneficiaries) and long observation times to reduce bias.

There are many limitations of this study. Sampling of participants for main office staff IDIs may have been limiting because another staff member chose the interviewees. While this was a benefit because of her inside knowledge, relationships with fellow employees could have biased selection. Though sample sizes for staff IDIs were justified, there may not have been an ample amount to achieve saturation. Main office staff interviews were very different from each other and suggest that there may be a

broader range of views that could have been fulfilled with more interviews. In site staff interviews, themes were consistently confirmed, which suggests that interviews may have been saturated. However, confirmation of saturation could have been assuredly confirmed with an additional interview.

Design was limited because the characterization of region (mountain, coast, town) did not account for the area between the town and the coast. This caused a lack of examination of a geographic region in the UKA Guerrero catchment area. Because of this design flaw, one ambiguous community was excluded from the sampling pool, and one ambiguous community was included in the final sample by characterizing it as coastal. This led to greater diversity within the sample because it inadvertently examined the only non-sampled geographic region within the catchment area. However, it negatively affected the intention of the design, to saturate each geographic region.

A limitation to beneficiary IDIs was the women's perception of me as the interviewer. Though I assured them that I was not an UKA staff member and that IDIs were confidential, women may have feared getting in trouble for sharing this type of information. A potential limitation to staff IDIs is that staff may have tried to present their own agenda with the perspective that I may be able to influence change.

The greatest limitation to observations was the event of major product shortages during the time of the study. This may have resulted in an inability to see products consumed that would otherwise normally be consumed. Also, observations were extremely rich and might have been more focused had they been conducted in a more structured form.

A major limitation to IDIs as well as to some aspects of observations was the language barrier, as I did not have native speaking status.



### **Program recommendations**

Acceptance of the package and products in the package can have a great influence on utilization, which can in turn have an influence on the effectiveness of the package. It is, therefore, critical to know whether there is acceptance of products in the package. For this reason, UKA should add or modify the annual UKA census to include indicators about acceptance. These data can be used to evaluate whether there is a difference between regions that may need to be addressed via package design or program delivery. If the census cannot be modified, a separate annual acceptance evaluation survey should be administered.

If recommendations about targeted products are necessary, they must be modified in delivery, or abandoned in exchange for modified package design that addresses this cultural barrier. A modification of delivery could include a mandatory educational talk about products in the package at each session. Such an educational talk could simply consist of naming each product and having mothers take turns explaining the benefits of the product and identifying the appropriate recipient. Another modification could be to print and distribute pamphlets detailing the benefits and the appropriate recipient of each product. A combination of the two strategies would be most effective. A limitation of the latter strategy is the illiteracy of some women. However, pamphlets given to illiterate women could still be useful as spouses and older children may be able to read. Illustrations could also help to overcome this barrier.

Choosing whether to modify delivery or to abandon recommendations could be informed by a deeper understanding of the cause of product sharing within the household. From this study, it was inconclusive whether moms did not understand the message, or

whether they were simply unable to adhere. Further research, such as modification or additions to the annual survey, could help to explain and inform this decision.

One change that might be made for this purpose, is to replace cookies with a product that is not usually consumed by the whole family. Another idea would be to increase the supply of a product that is more generally associated with child consumption- such as milk.

In order to address non-acceptance of specific items, modification of package delivery (by way of nutrition education) as described above may be used. Ideally, package design would be modified (in accordance to nutrition guidelines and official standards) to address region-specific needs to ensure acceptance of all items and to guarantee sustainability of feeding practices. A list of preferred items and the portion of women requesting each is available on the Guerrero community census, which is available to all staff.

Other recommendations include consistent delivery of the same flavor of amanene (if amanene delivery is to continue). The acceptance of amanene flavor is highly variable, and knowledge of the existence of different flavors may cause a higher rejection of the other flavors due to expectations.

The last recommendation, that may work well with the printing and distributing of pamphlets with product specific information, is to offer women information about the program itself. Many women do not seem to know that the price they pay covers the cost of the whole program, not simply the package. Another piece of information that women do not seem to have, is the source of the program. Some women expressed that they thought the program was from the Mexican government or from outside of the country.

Combining this information with product specific information could lead to transparency that could potentially increase the womens' value of the program.

### **Future Studies**

Other future research, whether done by the organization or outside researchers, could include qualitative or quantitative analysis of beneficiaries that left the program, communities that were abandoned, or other members of the community not eligible for UKA. Beneficiaries that left the program by their own impetus may have interesting views toward the package or other aspects of the program.

## **Conclusion**

In this study, use, acceptance and appropriateness were assessed. IDIs and observations showed that there is high acceptance of the package as a whole due to the nutritional and economic benefits that it brings. However, there are products with high non-acceptance and reasons for non-acceptance stem from the inability to buy or find those products in the region. Data also show that products targeted to specific people are often shared by other members of the household. Package delivery and design could be modified to address the stated issues.

## REFERENCES

1. Black RE, Morris SS, Bryce J. Where and why are 10 million children dying every year? *Lancet*. Jun 28 2003; 361(9376):2226-2234.
2. Juan A Rivera, Jaime Sepúlveda Amor Conclusions from the Mexican National Nutrition Survey 1999: translating results into nutrition policy. *Salud pública Méx*. 2003; (45).
3. Barquera S, Rivera-Dommarco J, Gasca-Garcia A. [Policies and programs of food and nutrition in Mexico]. *Salud Publica Mex*. Sep-Oct 2001;43(5):464-477.
4. *Erradicating child undernutrition*. 2009, Un Kilo de Ayuda. p. 1-22.
5. *Erradicando la desnutricion infantil en Mexico*. 2008, Un Kilo de Ayuda. p. 1-45.
6. Escalante-Izeta E, Bonvecchio A, Theodore F, Nava F, Villanueva MA, Rivera-Dommarco JA. [Facilitators and barriers for the consumption of a micronutrient supplement]. *Salud Publica Mex*. Jul-Aug 2008; 50(4):316-324.
7. Rivera JA, Sotres-Alvarez D, Habicht J. Impact of the Mexican Program for Education, Health, and Nutrition (Progresa) on Rates of Growth and Anemia in Infants and Young Children: A Randomized Effectiveness Study. *JAMA*. 2004; 291 (21): 2563-2570.
8. Ezzati M, Lopez AD, Rodgers A, Vander Hoorn S, Murray CJL, and the Comparative Risk Assessment Collaborating Group. Selected major risk factors and global and regional burden of disease. *Lancet* 2002; 360: 1347–60.
9. World Health Organization. WHO Child Growth Standards based on length/height, weight and age. *Acta Paediatr Suppl* 2006; 450:76–85.
10. World Health Organization. World Health Statistics 2010. *WHO Press*. 2010.
11. FFI, GAIN, UNICEF, USAID, Micronutrient Initiative, The World Bank. A United Call to Action on Vitamin and Mineral Deficiencies Global Report 2009. 2009.

12. Rivera JA, Barquera S, Gonzalez-Cossio T, Olaiz G, Sepulveda J. Nutrition transition in Mexico and in other Latin American countries. *Nutr Rev.* Jul 2004; 62(7 Pt 2):S149-157.
13. Barquera S, Campirano F, Bonvecchio A, Hernandez-Barrera L, Rivera JA, Popkin BM. Caloric beverage consumption patterns in Mexican children. *Nutr J.* 2010; 9:47.
14. Bonvecchio A, Safdie M, Monterrubio EA, Gust T, Villalpando S, Rivera JA. Overweight and obesity trends in Mexican children 2 to 18 years of age from 1988 to 2006. *Salud Publica Mex.* 2009; 51 Suppl 4:S586-594.
15. Gonzalez-Castell D, Gonzalez-Cossio T, Barquera S, Rivera JA. [Contribution of processed foods to the energy, macronutrient and fiber intakes of Mexican children aged 1 to 4 years]. *Salud Publica Mex.* Sep-Oct 2007; 49(5):345-356.
16. Leroy JL, Gadsden P, Rodriguez-Ramirez S, Gonzalez de Cossio T. Cash and In-Kind Transfers in Poor Rural Communities in Mexico Increase Household Fruit, Vegetable, and Micronutrient Consumption but Also Lead to Excess Energy Consumption. *The Journal of Nutrition Community and International Nutrition.* 2010; 140:612–617.
17. Cuevas-Nasu L, Hernandez-Prado B, Shamah-Levy T, Monterrubio EA, Morales-Ruan Mdel C, Moreno-Macias LB. Overweight and obesity in school children aged 5 to 11 years participating in food assistance programs in Mexico. *Salud Publica Mex.* 2009; 51 Suppl 4:S630-637.
18. Sguassero Y, de Onis M, Carroli G. Community-based supplementary feeding for promoting the growth of young children in developing countries (Review). *The Cochrane Collaboration.* 2010; 4.
19. Secretaria de Salud. NOM-169–SSA1-1998, Para la Asistencia Social Alimentaria a Grupos de Riesgo. Mexico City: SSA; 1999.
20. Fernald LC, Gertler PJ, Neufeld LM. 10-year effect of Oportunidades, Mexico's conditional cash transfer programme, on child growth, cognition, language, and behaviour: a longitudinal follow-up study. *Lancet.* Dec 12 2009;374 (9706):1997-2005.
21. Ortiz JPA, Díaz JLO, Ng JJJ, López MLZ. A diez años de intervención Evaluación externa del Programa Oportunidades 2008 en zonas rurales (1997-2007). 2008.
22. Rosado JL, Rivera J, Lopez G, et al. [Development and evaluation of food supplements for the education, health, and nutrition program]. *Salud Pública Mex.* May-Jun 1999; 41(3):153-162.

23. Rosado JL, Rivera JA, López G. Development, production and quality control of nutritional supplements for a national supplementation program in Mexico. *Food Nutr Bull* 2000; 21(1):30-34.
24. Martínez H, Campero L, Rodríguez G, Rivera J. Aceptabilidad a suplementos nutricios en mujeres embarazadas o lactando y niños menores de cinco años. *Salud Pública Mex.* May-Jun 1999; 41(3): 163-169.
25. Neufeld L, Alvarez DS, López LF, Mayo LT, Ruiz JJ, Dommarco JR. A study of the consumption of the food supplements Nutrisano and Nutrivida by children and women beneficiaries of Oportunidades in urban areas. Cuernavaca: Instituto Nacional de Salud Publica; 2004
26. Zarco A, Mora G, Pelcastre B, Flores M, Bronfman M. Aceptabilidad de los suplementos alimenticios del programa Oportunidades. *Salud Pública de México.* 2006; 48:325-331.
27. Latapí AE, González de la Rocha M. External Evaluation of the Impact of the Human Development Program Oportunidades. Mid-term Qualitative Evaluation of the Oportunidades Program in rural areas. Cuernavaca: Instituto Nacional de Salud Publica; 2004.
28. Uicab-Pool GA, Ferriani MGC, Gomes R, Pelcastre-Villafuerte B. Representations of eating and of a nutrition program among female caregivers of children under 5 years old in Tizimin, Yucatan, Mexico. *Revista Latino-Americana de Enfermagem.* 2009; 17:940-946.
29. Bonvecchio A, Pelto GH, Escalante E, et al. Maternal knowledge and use of a micronutrient supplement was improved with a programmatically feasible intervention in Mexico. *J Nutr.* Feb 2007; 137(2):440-446.
30. Rodríguez-Herrero H. Evaluación Cualitativa del Programa de Apoyo Alimentario. Mexico City: CIESAS; 2005.
31. PAAZAP: Descripción y objetivos. SEDESOL. <http://www.dgi.sedesol.gob.mx/index/index.php?sec=129>. Updated January 2010. Accessed April 17, 2011.
32. Ortega EER, Torres EMP. Evaluación del Diseño del Programa de Apoyo Alimentario en Zonas de Atención Prioritaria (PAZAAP). Mexico: Hospital Infantil de México Federico Gómez, Centro de Estudios Económicos y Sociales en Salud; 2008.
33. DIF Nacional. Gobierno Federal Salud. [http://dif.sip.gob.mx/?page\\_id=239](http://dif.sip.gob.mx/?page_id=239). Updated December 8, 2010. Accessed April 16, 2011.

- 34.** ¿Qué es Liconsa? Gobierno Federal SEDESOL.  
[http://www.liconsa.gob.mx/innovaportal/v/1534/1/mx/que\\_es\\_liconsa.html](http://www.liconsa.gob.mx/innovaportal/v/1534/1/mx/que_es_liconsa.html).  
Updated November 24, 2010. Accessed April 16, 2011.
- 35.** Villalpando S, Shamah T, Rivera JA, Lara Y, Monterrubio E. Fortifying milk with ferrous gluconate and zinc oxide in a public nutrition program reduced the prevalence of anemia in toddlers. *J Nutr.* Oct 2006; 136(10): 2633-2637.
- 36.** ¿Qué es Diconsa? Gobierno Federal SEDESOL.  
<http://www.diconsa.gob.mx/index.php/conoce-diconsa.html>. Updated November 25, 2010. Accessed April 17, 2010.
- 37.** Muñoz M, Ledesma S J. Tablas de valor nutritivo de alimentos México: Mc Graw Hill; 2002.
- 38.** Un Kilo de Ayuda. APORTE NUTRIMENTAL DEL PACKAGE PIN. 2009.
- 39.** Morse J M, Determining Sample Size. *Qual Health Res* 2000; 10; 3.





## Appendix

### In-depth interview guide: Main office staff

#### Introduction:

Thanks so much for joining me for this interview. As you know, my name is Laura and I'm from Emory University in Atlanta and I'm working with UKdA for the summer to complete my practicum and ultimately to give recommendations about the functionality of the food package. In order to study the functionality of the package at the household level, I want to know more about the program and more about what may be seen as opportunities. So this interview is just a chance for me to learn more about those subjects. You were chosen because you are someone who might be able to tell me these things.

I would like to tape-record our discussion, if this is ok, because I won't be able to write as fast as we speak and I don't want to miss any of the issues we discuss. But our discussion today is completely confidential, no other student, teacher, employee, or anyone not associated with the research project will hear the tape recording or know what you shared. Any of the research documents relating to this discussion will have no mention of your name or even of which people took part in this study. Please let me know if you have any questions about this. Do I have your permission to tape-record our discussion?

I have a list of topics I would like us to talk about but please feel free to bring up any other issues that you feel are relevant. There are no right or wrong answers, and we are most interested in your personal opinions, so please feel comfortable to say what you honestly feel. So shall we begin?

#### Warm up questions:

1. Tell me more about your position with Un Kilo de Ayuda.  
Probe: how did you get connected with UKA? Why did you want to work with UKA?

#### Key questions:

2. What was UKAs original vision for the packages?
  - Why and when were they created?
  - How have they changed?

3. Can you tell me about the design of the package?
  - Why do the packages include the items that are included?
  - Who designed it?
  - Why those items as opposed to any other items?
4. What do the families know about why the packets contain the items that it contains?
5. How do you think families use the packages?
6. What complaints about the packages have you witnessed or heard?
7. What opportunities exist in the design and delivery of the packet?
8. What successes exist in the design and delivery of the packet?
9. What would the program look like if there was no package?
10. Why are the products of the package separated as opposed to in one package?  
Advantages and disadvantages

#### Closing questions

11. What are some obstacles to changing any parts of the package?
12. What do you see for both the near and far future for UKdA, and in particular for the food package?
  - How do you think it will change?
13. What questions do you think are important for me to ask the women in beneficiary interviews?
14. Obviously there are many things that I don't know at this point, and there may be things that I may not have known to ask. Is there anything else that you could share with me that I may not have asked?
  - Stories, advice, doubts

## **In-depth interview guide: Site staff**

### Introduction:

Thanks so much for joining me for this interview. As you know, I'm Laura and I'm from Emory University in Atlanta and I'm working with UKdA for the summer to complete my practicum and ultimately to give recommendations about the functionality of the package nutritional. In order to investigar todo sobre the functionality of the package at the ground level, I want to know more about the program and more about what may be seen as opportunities. So this interview is just a chance for me to learn more about those subjects. You were chosen because you are someone who might be able to tell me these things, but if you don't feel like you would know all of the answers, or if you have any other reason that you may not be able to complete the interview, just let me know.

I would like to tape-record our discussion, if this is ok, because I won't be able to write as fast as we speak and I don't want to miss any of the issues we discuss. But our discussion today is completely confidential, no other student, teacher, employee, or anyone not associated with the research project will hear the tape recording or know what you shared. Any of the research documents relating to this discussion will have no mention of your name or even of which people took part in this study. Please let me know if you have any questions about this. Do I have your permission to tape-record our discussion?

I have a list of topics I would like us to talk about but please feel free to bring up any other issues that you feel are relevant. There are no right or wrong answers, and we are most interested in your personal opinions, so please feel comfortable to say what you honestly feel. So shall we begin?

### Warm up questions:

1. Tell me about your position with Un Kilo de Ayuda.
  - How did you get connected with UKA?
2. I've read about the mission of UKdA and a little bit about the history, but there is only so much that I can read from the website. Can you tell me more about the inception of UKA and what the original vision was?

### Key questions:

3. What was UKAs original vision for the packages?
  - Why and when were they created?
  - How have they changed?
4. Can you tell me about the design of the package?

- Why do the packages include the items that are included?
  - Who designed it?
  - Why those items as opposed to any other items?
5. How does the delivery of the package work?
    - What differences in delivery of the package exist between sites?
  6. How do you think families use the packages?
  7. What complaints have you witnessed or heard of at the community level?
  8. What opportunities exist at the community level?
  9. What successes exist at the community level?
  10. What would the program look like if there was no package?
  11. What are the advantages and disadvantages of having the products in the package separated as opposed to in one package?

#### Closing questions

12. What are some obstacles to changing any parts of the package?
13. What do you see for both the near and far future for UKdA, and in particular for the food package?
  - How do you think it will change?
14. What questions do you think are important for me to ask the women in beneficiary interviews?
15. Obviously there are many things that I don't know at this point, and there may be things that I may not have known to ask. Is there anything else that you could share with me that I may not have asked?
  - Stories, advice, doubts

## **In-depth interview guide: Beneficiaries**

### Introduction:

Hola, thanks so much for joining me for this interview. I know I told you a little bit about myself already when I met you before, but I just want to remind you why I'm doing this interview. I am a student in the United States and I wanted to come spend some time with Un Kilo de Ayuda to learn more about the program and in particular the food package. To learn more, I wanted to talk with families that receive the package from Un Kilo de Ayuda. Even though I'm spending time with Un Kilo de Ayuda, I don't work with them.

I'm doing a study to see learn about how the food package component of Un Kilo de Ayuda functions. After I finish, I'm going to give recommendations to UKA based on what I find. There are no right or wrong answers, I want to hear your opinions and thoughts. I'm not going to tell UKA the names of anyone I interviewed, or share your personal information with any other person, so please feel free to give me your honest opinions.

So this is just an opportunity to me to learn more about your thoughts on the package and how your family uses the package. The interview will last about 60 minutes, but if there's some reason you don't feel comfortable completing the interview or don't feel comfortable answering a question, you may end the interview or skip a question. If it's ok with you, I'm going to audio record the interview, because I won't be able to write everything that you say, but the recording will be confidential and no one else will hear the recording or know what you've told me. I'm not going to tell the promoter, the commisionadas, or anyone what you say, so please feel free to give me your honest opinions. I will not use your name for anything, and I won't tell anyone else that I spoke with you. Is it ok for me to record the interview? Great, thanks!

### Warm up:

First I want to learn a little more about you. So:

1. Can you tell me about yourself and your family?
2. Tell me about your community and its connection with Un Kilo de Ayuda.

### Key questions:

I'm interested in learning more about what you think about Un Kilo de Ayuda, and in particular, the package. To learn more, I want to learn how your family consumes the food in the package.

3. So, I'm going to give you the name of each product one at a time, and can you tell me who in your family eats the product, and how many times a week it's eaten?  
When it runs out, do you buy more?

Pasta

Beans

Rice

Milk

Cookies

Marzipan

Sugar

Amenene

Flour

Oil

Great! That's all of the products in the package. Now:

4. Why are other women interested in the package?  
-Why are you interested in the package?

5. What are the complaints that other women have about the package?  
-What are the complaints that you have about the package?
6. How does your husband feel about the package?
16. Other adults in the household?
17. Your children?

There are times when the health promoter has workshops on how to use or cook the foods in the package.

7. Tell me about the workshops.
18. Tell me about the recipes that he/she gives you.
  - a. Which do you use? Why?
  - b. Which are your families' favorites?
  - c. Which ones do you not use? Why?
19. How could the health promoter change the way in which he/she runs/delivers the workshops?

When UKA designed the package, there were some nutritional reasons that they included milk, beans, cookies and other products in the package.

8. How has the health promoter helped you to understand the nutritional reasons that the package includes the products that it includes?
20. How interested are you in learning more about the products and their nutrition?
9. What do you think is the reason that UKA distributes the packages?

I'm going to present an imaginary situation to you. Let's pretend that UKA stopped giving packages, but they still came with all of the other services, like anemia tests, weighing, and educational talks.

10. If UKA stopped giving the packages but still gave all of the other services, what do you think what happen to the program?
11. If UKA didn't give packages, what foods would your family eat?
21. What foods would your family eat that are included in the package?
12. If UKA didn't give a package, how much money would you have to spend to buy the products that are in the package?
22. If it saves a lot of money: So when you buy the package from UKA it saves money. How do you use the money that you saved?



23. What can you buy now that you couldn't buy if UKA didn't distribute a package?

Closing:

I want to know which products are the most important to you.

13. If you could design the package, which 10 products would you include? You could choose products that are included in the package now, or products that are not included in the package now. (The package would still cost the same amount that it costs now).

14. Is there anything else that you want to share with me that you think I should know about the package?

Those are all the questions that I have for you. Please let me know if you have any questions for me about the interview or any part of the study. Thanks so much for your time!