

SYSTEMATIZATION OF EXPERIENCES

# HEALTHY FEEDING WITH LOCAL PRODUCTS

Promoting Healthy Feeding Behaviors

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February 2009

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- A. List of actors
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- C. Guide for interviews or focal groups

## INTRODUCTION

The present document is the product of the systematization on Healthy Feeding with local products, activity carried out by ADRA Bolivia's Health Component, within its Food Security Program, in the communities of Tacomayo and La Plateada of the municipality of Camargo, between 2003 and 2008, period in which feeding practices using local products were organized, thus applying and increasing the consumption of local foods by means of different cookery preparations. This experience started with the purpose of contributing to the nutritional development of our beneficiary population. To date, the "Healthy Feeding with local products" strategy was implemented in 127 communities of the municipalities of Culpina, San Lucas, Camargo and Incahuasi.

The objective of the training workshops on cookery preparations based on local products offered by the Health Component is to promote and increase the adoption of feeding practices based on local products, so that the population applies them in their daily life. Through home visits it was possible to observe a different reality, the mothers often did not have knowledge about or did not know how to make cookery preparations based on local products, and its consumption was limited to boil the products (boiled dried broad bean, boiled corn and boiled potato) and some foods were even given to the animals, like the stems of Swiss chards and onions. It is possible that the proper use of local foods was not taught in these areas, or because there were not workshops addressing the nutritional value of foods, for example, families never taught that dried broad bean could be consumed as a nourishing breakfast in the form of *Api* (non-alcoholic corn drink), specially beneficial for children. Facing this situation, ADRA included within its intervention strategy the "healthy feeding with local products" methodology, which had two important stages:

In the first stage, training workshops aimed at Community Health Agents (CHAs) were carried out and then, together with the CHAs and ADRA Bolivia's Health Team, more of these training workshops on the preparation of recipes based on local products were carried out in each one of the communities with the active participation of women and also some men, as they felt free to ask questions. In a second follow-up stage the training workshops continued based on the cookbook elaborated, and through home visits we could observe that the "healthy feeding with local products" has directly contributed to a feeding-nutritional change of families, obtaining in this way better results in the nutritional prevention and rehabilitation of children under five years of age.

In this way, this systematization satisfies the need of sharing the obtained results and lessons learned not only among the personnel of ADRA Bolivia, but also with other institutions that carry out community development work.

Thus, the objective of the systematization will be registering and disseminating the training experience with the "healthy feeding with local products" methodology, generating knowledge that enables to improve the Agency policies and/or reproduce it in other types of development projects.

### 1. Background

#### 1.1. Description of ADRA Bolivia's Food Security Program

ADRA Bolivia carries out its activities since 1996, initially with a welfare approach and then expanding them to emergency and development activities in the subsequent years. Since 1990 ADRA has developed more comprehensive activities oriented basically to community development with the financial support of USAID's Title II.

ADRA Bolivia's Food Security Program considers the implementation of three components: Rural Income, Natural Resources Management, Health & Nutrition and Water & Sanitation, working in the municipalities of San Lucas, Camargo, Culpina and Incahuasi in the Nor and Sud Cinti Provinces of the Department of Chuquisaca, and whose main objective is to **"Strengthen families and communities for a comprehensive and sustainable improvement in their lives by means of an increase in the rural income supported by an improvement in health and natural resources management"** (DAP, 2002-2006).

To achieve this goal, each component has raised the following Strategic Objectives (SO):

***Rural Income:***

SO 1: Increase the productivity of the target families' commercial crops.

SO 2: Increase the target families' income related to agriculture.

***Natural Resources Management:***

SO 1: Improve the natural resources management in the target communities.

***Health and Nutrition:***

SO 1: Improve nutritional and health status of the target population.

SO 2: Increase water and sanitation facilities for the target families and communities.

***Health and Nutrition Component***

This component is focused on preventing and reducing malnutrition and morbidity in children under three years of age and improving the health condition of women in child-bearing age, specially during pregnancy, delivery and post-delivery. In this way, the leading role of parents is facilitated through the strengthening of knowledge and adequate practices on nutrition, health, early stimulation, sustainable human development and sanitation.

The support strategies that give sustainability to ADRA's Component include the gender approach in all the interventions, promoting the participation of both men and women in all the activities. Likewise, emphasis is placed on the improvement of the quality of life, cultural adaptation of health services, strengthening to the comprehensive maternal child care strategy, field work of the health services in the communities, innovative communication strategies, basic sanitation supported by local municipalities and maintained by the population, and strengthening of the capacities of municipalities and community institutions (OTB<sup>1</sup>) to promote civic participation in the local control of health facilities, management of health services and resources, planning and implementation of monitoring actions and annual operational plans of health, nutrition and water & sanitation.

In each of the rural communities selected, the main activities in health, nutrition, hygiene education, sanitation and growth monitoring of children are carried out through the Community Centers of Family Promotion (CCPF), led by communal leaders and volunteers chosen by the community as Community Health Agents (CHA), who promote the Component activities under the training and supervision of the Field Professionals (FP). In this way, the strategic objective and the result indicators will be fulfilled.

Among the strategies developed by ADRA's Health Component are:

- Nutritional rehabilitation workshops
- Growth promotion
- Early stimulation

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<sup>1</sup> OTB = Grassroots Territorial Organization

- o Improvement of the quality of health services
- o Community surveillance systems on health and emergency evacuation
- o Organization of nutrition and health fairs "For a Safe Maternity"
- o Strengthening to the management of DILOS
- o Construction of water and sanitation systems
- o Organization and operation of support groups



These interventions have as their central point the community participation and mobilization that, in coordination with health services, promote interaction between both of them to achieve the proposed objectives. This work is developed within the framework of an agreement with the Departmental Health Service of Chuquisaca (SEDES-CH) and its units in charge of the various Programs, the Network Management, municipalities and the respective Local Health Boards (DILOS).

## 1.2. Population and geographical area

The Health Component develops its activities in three municipalities of the Nor Cinti Province and one of the Sud Cinti Province in the Department of Chuquisaca, according to the following detail:

MUNICIPALITY	HEALTH SERVICES	SERVICES AUDITED	COMMUNITIES	POPULATION	No. OF CHA
Camargo	6	6	25	5,508	28
San Lucas	22	13	41	14,577	74
Incahuasi	12	6	31	33,298	50
Culpina	11	4	30	10,697	66
<b>Total</b>	<b>51</b>	<b>30</b>	<b>127</b>	<b>43,995</b>	<b>218</b>

These areas are considered of high vulnerability to food insecurity *due to the difference between the risk of presenting food insecurity and the response capacity of a certain population before the presence of that risk. The vulnerability to food insecurity is a stratified index with five categories:*

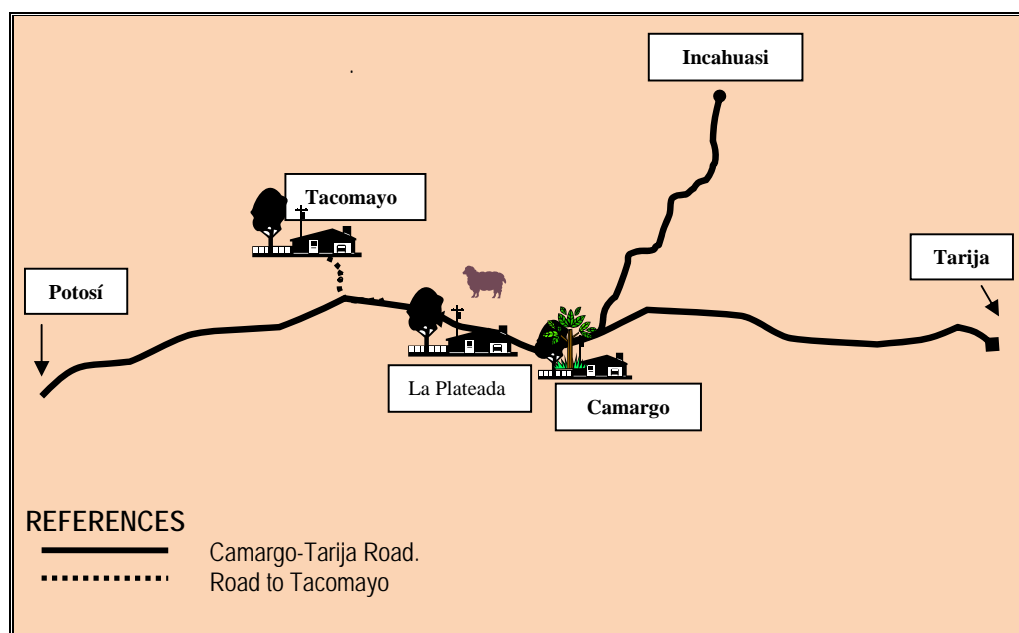
CATEGORIES	VULNERABILITY LEVELS
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Category 1	<i>Very low vulnerability level to food insecurity</i>
Category 2	<i>Low vulnerability level to food insecurity</i>
Category 3	<i>Medium vulnerability level to food insecurity</i>
Category 4	<i>High vulnerability level to food insecurity</i>
Category 5	<i>Very high vulnerability level to food insecurity</i>

*In the municipalities vulnerable to food insecurity, people live mainly on subsistence agriculture and they are not able to cover the minimum caloric requirements, which causes a decrease in their physical activity, low work capacity, reduction of productivity and poses a risk for children's growth. Frequently, people end up transmitting famine to the next generation<sup>2</sup>.*

The area identified for systematization includes the communities of Tacomayo, with a medium vulnerability level to food insecurity (3), and La Plateada, with a high vulnerability level to food insecurity (4), located within the district of the municipality of Camargo, Nor Cinti Province of the Department of Chuquisaca at an average altitude of 2,980 m.a.s.l with irregular and sub-rounded, steep to very steep, peaks. (Data from Property Zoning Plan, 2004).

MUNICIPALITY	VULNERABILITY LEVEL TO FOOD INSECURITY BY MUNICIPALITY
Camargo	4
San Lucas	5
Incahuasi	5
Culpina	5



<sup>2</sup> Survey carried out by the World Food Program

The access to the communities of Tacomayo and La Plateada is through the vehicle road Camargo – Potosí. La Plateada is 6 km away from the municipality of Camargo through an almost level road. Tacomayo is 18 km away from the municipality of Camargo. The conditions of accessibility to this community are good over the whole year.

The community of Tacomayo has 271 inhabitants and La Plateada has 292. The population under three years of age corresponds to 6% (15 children) and 6% (17 children) respectively, which is the target population of the Health Component.

COMMUNITY	POPULATION	FAMILIES	< 3 m	< 6 m	< 1 y	3-4 to 11 m	3 m to 35 m	< 3 y	< 5 y	WOMEN IN CHILD-BEARING AGE	PREGNANT WOMEN
TACOMAYO	270	52	2	3	6	12	13	15	27	46	3
PLATEADA	292	35	2	3	7	10	15	17	27	20	4
TOTAL	562	87	4	6	13	22	28	32	54	66	7

Source: Data from Micro localization of Health 2008

### 1.3. Socio-cultural aspects

#### a) Language and customs

The predominant language in the communities is Spanish; however, the population speaks Quechua for their social and economic relationships. Customs are connected to traditions, being the most important ones: the belief in the *Pachamama*, saints, *yatis* and *jampiris*. The *Ch'alla* is carried out during the sowing time and carnival, and is characterized by invitations to drink homemade wine. In former times, during carnival, landlords had the custom of waiting the carnival groups with wine pitchers and throw quince at the feet of dancers celebrating the carnival, this custom is known as *Membrillada* or *Khukuneada*. In other respects, most of the inhabitants practice the religious syncretism, that is, on the one hand they believe in God, Virgin Mary and saints, and on the other hand they also believe in the Pachamama (Mother Earth), hills, animals, sorcerers and diviners. Among other culturally rooted customs are: the *Toma Vueltas* for agricultural tasks and the *Faena* or *Minka*, which is a work activity, organized by one family,<sup>[1]</sup> that requires to be finished in a short period of time (one day), in which food is prepared for all the participants and ends with the *Ch'alla* of the work done; however, these customs tend to disappear with time due to the incorporation of agricultural machinery for the tasks.

#### b) Origin, migration, fairs, festivals and holidays

The community has its roots in the region, most of its population belongs to the ancient families that inhabited the vicinity of the community.

The inhabitants of La Plateada and Tacomayo generally migrate to Argentina, and within Bolivia to: Bermejo, Tarija, Yacuiba and Santa Cruz. The reasons for migration are mainly natural disasters, economic problems and drought. Men get jobs like masonry, butchery, laborer work, tile works and sugar cane harvest in the new places; women work on household chores and *chaqueo* (controlled burning).

The fairs in which they sell their agricultural products are the ones in Camargo, San Lucas, Belén, Culpina, Incahuasi, Villa Charcas and Santa Elena, for their proximity and also in departmental markets of Potosí

and Tarija. The main fruits of the area are peach, plum, fig, grape and apricot, which are commercialized all over the country because of their quality and particular taste.

Regarding festivals, the communities do not have one in particular, they only participate in the traditional ones like: New Year, Carnival, Easter, grape harvest, *San Juan*, *Santa Anita*, National holidays, Candlemas, All Saints' Day and Christmas.

### c) Education

In regards to formal education, the communities of La Plateada and Tacomayo have a primary school. Secondary school is taken in Camargo because of its proximity.

The non-formal education developed by ADRA on health, agriculture and natural resources has the following organized groups: mothers' centers, agricultural committees and communal promoters.

### d) Health

La Plateada and Tacomayo do not have a health post, their inhabitants go to the town of Camargo which has the following health infrastructure: general hospital, medical center of the national health insurance and private services of the San Clemente Clinic and doctor's offices that render general medical care, odontology, ultrasound scanning, X rays, clinical laboratory and surgery.

The main diseases that cause mortality among children are: ARI (Acute Respiratory Infections), ADD (Acute Diarrheal Diseases), digestive system diseases, genitourinary system diseases, arthropod-borne diseases, bone-muscular system diseases, scabies, stomachaches and headaches. The main causes of maternal mortality are: eclampsia, High Obstetric Risk (HOR), bleeding, abortion, calculi, Chagas' disease and tuberculosis. Other diseases that arise have infectious origin such as scabies, headaches, colds and other ailments.

Traditional medicine is a deep-rooted practice in rural areas, and within the community is also practiced specially to cure psychological illnesses (frights and bewitchments).

The behavior of normal children at municipality level showed 54.8% in 2006 and 65.7% in 2008. At community level the percentages in La Plateada vary from 80% to 95% in 2006 and 2008 respectively, while in Tacomayo the percentages have remained in 69.2% in 2006 and 2008.

MUNICIPALITY	COMMUNITY	GLOBAL PERCENTAGE OF MALNUTRITION	
		2006	2008
Camargo		74.6%	82.1%
	Plateada	80%	95%
	Tacomayo	69.2%	69.2%

Source: Data from ADRA's performance and monitoring indicators

## 2. Methodology

It is important to emphasize that a systematization process requires the reconstruction of experience through the critical analysis based on primary and secondary information. The methodological method employed considers three major analysis moments: (1) initial situation corresponding to the intervention without the "Healthy feeding with local products" workshops, (2) implementation of the "Healthy feeding with local products" workshops and (3) analysis and submission of the experience results. Finally, the lesson learned, success story and reflections on the experience are presented.

The stages of field work and systematization process analysis of the work experience with "Healthy feeding with local products" were developed from February 9 to 13, 2009. The municipality of Camargo and the communities of Tacomayo and La Plateada were selected to work and there, select the focal groups and carry out individual interviews with the primary and secondary actors involved.

In-depth Interviews were held with all the actors involved (mothers, CHA, ADRA's Field Professionals and Health Staff of the Ministry of Health) in the work with "Healthy feeding with local products" in order to draw their opinion and appraisal on the operation and results of the this work.

### 3. Central Point of Systematization

The experience under systematization is the work done by the Health Component of ADRA Bolivia through the "Healthy feeding with local products", in the communities of Tacomayo and La Plateada of the municipality of Camargo, between 2003 and 2008. This is considered a successful experience, since it has allowed many families and specially mothers to understand practical knowledge more easily and to achieve behavior changes in regard to family feeding and nutrition.

For this reason, it is important to know the work done by the "Healthy feeding with local products", its determinant organizations aspects and the difficulties it had to overcome for its adoption. This is how the central point of systematization is defined as:

"Register and disseminate the experiences developed with the use of local foods for a healthy feeding"

### 4. Actors involved in the experience

ADRA Bolivia has a field professional in the areas of Tacomayo and La Plateada, she is in charge of watching over the fulfillment of the planned activities and has the support of the Community Health Agents from the communities, who have been trained and supplied with the didactic material needed to train families and specially mothers.

For the systematization it is necessary to reconstruct the experience gathering primary information, hence individual and group interviews were made, based on the following table:

<i>TYPE OF ACTOR</i>	<i>TYPE OF INTERVIEW</i>	<i>TACOMAYO</i>	<i>LA PLATEADA</i>	<i>REMARKS</i>
1. Mothers	Group interviews to mothers	1	1	
	Individual interviews to leaders	1	1	
2. Promoters	Group interviews to Community Health Agents	1	1	CHAs from the communities of Churo, Carpachacra and San Luis were invited
4. Health Staff	Interview to the Health Staff	-	-	The interview was made to the Health Staff of the municipality of Camargo, who take care of the communities under systematization
5. ADRA's Field Professionals	Individual interview to a Field Professional	1	1	

## 5. Description of the initial situation

Before ADRA Bolivia implemented the “Healthy feeding with local products” methodology in its training program, the communities of Tacomayo and La Plateada had a vulnerability level to food insecurity of 3 and 4 respectively, because food availability is not the same throughout the year and food distribution was not done according to the individual needs of family members, specially children under five years of age, and on the other hand, there was not food variety, quality and innocuousness. For all these reasons, family members did not have a good health and high rates of acute diarrheal diseases and acute respiratory infections were found within the intervention area, specially in children.

The Health Component of ADRA carried out workshops initially focused on issues such as diarrhea, vaccines, acute respiratory infections, early stimulation, General Maternal and Child Insurance (SUMI), among others. For the development of educational meetings, flip charts, brochures, charts and other materials were used.

In regard to cookery preparations, families did not use local foods, they only consumed them as garnish, for example: they used just a little of broad bean, Swiss chard and carrot in the soup and many other vegetables were given to the animals.

“We did not give that value in the past”  
(Ema Barrios CHA – Tacomayo community)

“We almost did not know how to use vegetables, we just consumed broad beans boiled and in stews, and wheat just in *lagüita* (soup)”  
(Marfa Caracoles, family mother – La Plateada community)

“We just ate broad beans boiled and quinoa in *pisara* and *mucuna*, we did not know how to prepare other recipes because nobody taught us the varieties that can be prepared with local products”.  
(Teresa Villca, family mother– Tacomayo community)

The communities based their nutrition on carbohydrates (rice, noodles, corn), being ignorant of the quantity, quality and frequency of a balanced feeding, specially for children under five years of age. “*We did not know the nutritional value of foods*”. In the past, local foods were replaced with cereals (like rice) and noodles, whose price was not exactly the best for the family income. Besides, these foods were prepared in a wrong manner, for example, when preparing rice they used too much oil, which affected their health and economy.

When the systematization asked about the benefits of local foods, the mothers said that they were not aware of them, because nobody has taught them and they just knew some or other preparation their parents had taught them. “*But we are aware of the fact that if our children are not properly nourished, they will not grow healthy*”

The health staff visits the communities (and other bordering ones) on a monthly basis and carries out the following actions:

- Comprehensive care to the population
- Supply of vitamins, ferrasol, vitamin-enriched oil; weight/height control, antenatal control and Papanicolaou's test; vaccines against tetanus and yellow fever.
- Training on the benefits of the General Maternal and Child Insurance (SUMI)

The activities of the health staff were limited only to community actions and the data obtained was impersonal. If undernourished children were found, they were not given an appropriate nutritional counseling or taught feeding practices.

When the health staff went out, they only went out to vaccinate, if they found an undernourished child they did not told the family which foods should be consumed, they did not know.  
(Margarita Miranda, CHA – Tacomayo community)

## 6. Critical reflection on the intervention process

The organization of the “Healthy feeding with local products” workshops in the communities of the municipality of Camargo was initiated in 2003, when ADRA Bolivia decided to place more emphasis on community work with the purpose of improving the nutritional status and preventing malnutrition in children. The groups for these workshops were made up of small groups within one community (three to six people), generating in this way a competent and personalized process of teaching and learning and where the desire to learn, mutual support among group members, respect and confidence to ask or suggest could be observed.

ADRA Bolivia through its Health Component has five nutritionists expert on the subject, who trained their nurse colleagues and with whom they coordinated and carried out joint activities within the intervention area. Thus, ADRA initiated its work on “Healthy feeding with local products” elaborating and standardizing cookery recipes with local products to meet the caloric and nutritional requirements of the families, which had as a result a cookbook<sup>3</sup>. Then, the team of field professionals (nutritionists and nurses) of the municipalities of Camargo, San Lucas, Culpina and Incahuasi belonging to the VI Health Network of Camargo, trained Community Health Agents, health staff and people in the different communities on “Healthy feeding with local products” through group practices on food preparation based on local products.

### 6.1. Organization of workshops on “Healthy feeding with local products”

All field professionals initiated the training activities jointly with cookery recipes different per municipality. But in 2006, the Health Component agreed on the elaboration of a single cookbook that provides the intended organoleptic features for the whole intervention area. The steps taken for this process were:

1. Situational diagnosis of food access and availability in the Cintis.
2. Diagnosis of population's feeding habits
3. Increase in the availability of local foods
4. Identification of the recipes by meal times
5. Chemical analysis of recipes to ensure the nutritional contribution
6. Standardization of recipes (nutritional contribution, taste, color, consistency, appearance)
7. Validation of recipes at community level and with the staff of health services
8. Edition and publication of the cookbook
9. Distribution to all the families with children under 5 years of age

Some months have been necessary to implement the “**Healthy feeding with local products**” workshops in the field, in first place for Community Health Agents to get abilities and skills in the preparation of recipes with local foods and in organizing small groups in their communities, and in second place, to sensitize mothers on the advantages of the workshops, which was not difficult since most of them were enthusiastic about learning new preparations and making some meetings more dynamic. Since 2003 the “**Healthy feeding with local products**” workshops did not have difficulties to be carried out, and the

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<sup>3</sup> Cookbook based on local products, ADRA Bolivia “Healthy feeding with local products”

major challenges were when CHAs had to travel or leave for some reason, or when they had to rotate in the case of some communities, but all these barriers were overcome thanks to the Field Professionals and Health Staff who supported the activities in the community and trained new CHAs.

For the implementation process, each community was organized in small groups of three to six people, and depending on the community some groups were mixed (men and women). The CHAs, supported by the presidents of the Community Centers of Family Promotion (CCPF), led these workshops coordinating with the OTBs<sup>4</sup> the inclusion of health issues in the agenda of the General Meeting and thus organizing and fixing dates for the food preparation workshops based on local products. The communities accepted curious to know more about it. We believe that this fact attracted communities to participate actively.

“What we did first was speaking in the general meeting to communicate the whole community that we are going to carry out these workshops to prepare foods with our local products. They liked it and we selected groups as we already knew how to work”.  
(Ema Barrios, CHA – Tacomayo community)

An innovative detail found in some communities was the participation of husbands in the workshops, because they were assigned with the task by the community, the wife was away or because both of them had the desire to learn.

To be selected as a CHA some qualities should be met, such as: having their children in a good health and nutritional status, living in the same community, being literate, being communicative and patient, showing respect to other people's opinion, and knowing about health and nutrition.

For the “**Healthy feeding with local products**” workshops could work properly, fixed dates were set with the communities and in coordination with Health Services. In this way, the workshops at CCPF level were weekly and at community level were monthly.

## 6.2. Development of workshops on “Healthy feeding with local products”

The workshops were carried out in three stages: (1) training to CHAs and Staff of Health Services, (2) accompaniment of the CHA by the FP for the joint work in the workshops aimed at the community, and (3) follow-up to the CHA actions by the FP or Staff of Health Services during the planned workshops on the elaboration of recipes based on local products.

It is very important that CHAs of each community know issues such as food groups, complementary feeding and of course preparation of cookery recipes based on local products. The CHAs meet some requirements, which complement their abilities and skills, to be selected in their communities. They are basically the ones in charge of training mothers and are supported by the president of the CCPF.

The Health Component team carried out trainings for the CHAs on various health and nutrition issues and on the preparation of cookery recipes based on local products, addressing from hygiene when handling food to the presentation of their preparations. After this, they were able to lead the workshops by themselves. First, they were accompanied by the Field Professional and carried out the workshop jointly with her and then, the Field Professional just made the follow-up to the activity leaving the responsibility to the CHA.

In one of the workshop sessions something funny happened. We were preparing the soup using tender potato leaves and the

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<sup>4</sup> OTB = Grassroots Territorial Organization

participants said “wouldn’t this taste nasty?” But at the moment of tasting it, they realized it was delicious and nutritious.  
(Susam Alcoba – Health FP)

For the “**Healthy feeding with local products**” workshops could be dynamic and be related to issues of interest to the Health Component, the following activities were considered in the workshops:

- Hygiene of the foods
- Use of all the parts of the vegetable, for example: when using onion or Swiss chard not throwing away the stem but chopping it and using it in the preparations.
- Preparation of recipes setting out:
  - Food groups the foods used in the recipe belong to and how it is useful for us.
  - Group of people the preparation could be served to.
- As homework, mothers are told to prepare the recipe for their children and to take it to the community or CCPF meetings as a snack.

The operation of the “**Healthy feeding with local products**” workshops was supported by the communities and led by their CHAs since the beginning. The cooking practices have raised the curiosity of communities and we have found disposition and resolution to learn to prepare cookery recipes based on the products they themselves produce.

“In the beginning, we had a lot of curiosity to learn the recipes and even now there is always something new to learn, and we can put it into practice at home...” “My husband likes it...”  
(Antolina Budia, family mother – La Plateada community)

“The first thing they taught us was the five steps of hygiene. Then we learned not to boil all the vegetables because some vitamins may be lost”.  
(Lizet Rengifo, family mother– Tacomayo community)

The participation of communities and specially of mothers has allowed them to put into practice each one of the cookery recipes based on local products, which has benefited the nutritional status of their children thus preventing a possible malnutrition and on the other hand helping in the recovery of malnourished children.

“My son, for example, was malnourished until I started giving him boiled quinoa and dried broad bean *api* more often, and he regained weight”  
(Margarita Miranda, CHA – La Plateada community)

The CHA carries out follow-up activities to the adoption of practices on the preparation of cookery recipes based on local products through home visits and checking whether the mothers take snacks for their children to the meetings or not, thus verifying their putting the preparations into practice at home.

The “**Healthy feeding with local products**” workshops have contributed to sensitize mothers on the importance of an appropriate feeding, specially for children under five years of age, and the feeding frequency, quantity and quality. The mothers have learned in a practical way how to stimulate their children to eat the adequate quantity according to their age, using songs and games for example.

## 7. Achievements of a “**Healthy feeding with local products**”

The intervention of ADRA Bolivia in the communities of Tacomayo and La Plateada and in all the work area was comprehensive, with the participation of the Rural Income, Natural Resources Management and Health Components, achieving an increase in the families’ income through improvements in the production

and commercialization of their products, sustainable use of natural resources and improvement of health and nutrition (specially of children under five years of age) by means of various activities.

After finishing the implementation and follow-up of the Health Component programmatic intervention at community level, a regular operation, with monthly meetings, can be observed. The work done with this intervention strategy has shown its contribution to the improvement of the program indicators at level of the intervention area, as shown in the following table, thus achieving an improvement in the access, availability and use of foods.

INDICATORS	2002	2008
	BASELINE	FINAL EVALUATION
% of children between 6-11 months of age receiving appropriate complementary feeding	7%	62.9 %
% of children between 3-35 months of age in the Title II Health Program, who are above -1 standard deviation of normal weight by age	41.5%	61.2%
% of children between 3-35 months of age in the Title II Program, who are below -2 standard deviation of normal weight (W/H)	10.6%	8.4%
% of children between 3-35 months of age with Chronic Malnutrition	47.3%	27.9%
% of children caretakers with appropriate hygiene practices for the food preparation	0%	100%

The mothers declared they participate in the “Healthy feeding with local products” workshops because they learn various preparations for breakfasts, soups, main dishes, pastry (bread, cakes, pancakes and fritters) and drinks, and because there is mutual trust among them and they share their experiences learning and teaching there. They also declare that they attend the meetings because they want to learn more about nutrition, health and hygiene, with the purpose of having their children continue gaining weight, and above all, avoiding infant mortality.

“In my community I had a mother named Marylu with a daughter named Lizbeth. The girl was 3 years old and had moderate malnutrition, her hair was yellow and she did not get better. I gave the mother counseling telling her to prepare these recipes in these quantities, and she replaced noodles and rice for boiled quinoa and barley, broad bean *api* and SODIS water instead of common water. The girl finally gained weight, and incredibly now she looks chubby. Her mother gives her preparations based on local products daily.  
(Margarita Miranda, CHA – La Plateada community)

Currently, 80% of the communities within the municipality of Camargo have decided to carry out activities based on the cookery recipes learned, organizing groups of four to five people (three women and two men) to elaborate the food. Women are in charge of the meals and men of the drinks and breadmaking. Each dish is sold in 2 Bs., the drinks in 0.50 cents, three loaves of bread in 1 Bs. and the slice of cake in 2 Bs. in the community meetings. The money earned is given to the treasurer. Each group requests an amount of money to cook and then returns it plus the earnings. The communities plan to purchase stoves with this money at the end of the year.

In the group we have decided to carry out more activities based on the recipes and we are going to buy 1 stove with 4 hotplates of the same brand for each one, to get rid of the smoke when cooking. We already have 3000 Bs.-, money earned preparing the recipes and selling them in the fairs of Muyuquiri, Chinimayu and in our community. We all participate, even those without *wamas* (children)”.  
(Adela Velásquez, family mother– Tacomayo community)

Another important result highlighted by the interviewed people is that preparing recipes based on local products is much more economical for the families, because they do not buy much noodles or rice

anymore, having replaced them with wheat, corn, quinoa and broad bean, positive practices whose good results are reflected in the nutritional status of their children and their own health.

Since the communities do not have access to fruits and vegetables, indispensable for a balanced feeding, between May and September, the field professionals adopted and applied the experience of elaborating dehydrated vegetables. This practice consists of dehydrating vegetables such as beetroot, carrot, tomato, parsley, turnip and Swiss chard, available during the harvest time. The mothers were taught to use the dehydrated vegetables in their soups in winter.

The staff of health services trained on the workshops currently carries out follow-up activities, as part of the field work, to the preparation of recipes and nutritional counseling. Other activity carried out by the staff of health services is at the Comprehensive Nutritional Unit (UNI), where undernourished children are nutritionally rehabilitated and their mothers stay with them, situation that is used by the health staff to teach mothers how to prepare their meals using what is available at home.

We have children under nutritional rehabilitation at the UNI and their mothers stay with them, so we make good use of this situation to teach them how to prepare these recipes. We want the mothers prepare the recipes by themselves so that they get used to them and prepare them at home when their children leave the UNI. We had a very good result. The mothers learned how to prepare the recipes for their children.

(Dr. Delma Farfán – San Juan de Dios Hospital of Camargo)

The mothers feel satisfied attending the workshops, they like to learn more cookery and pastry recipes, and they share experiences among them. Currently they feed adequately their family and specially their children under five years of age, including the three food groups, mainly during harvest time when they have availability of vegetables, and during the months of vegetable scarcity many interviewed mothers declared that they use dehydrated vegetables. They also declared that take into account the hygiene when preparing the food, washing their hands before the preparation and before eating. The recipes most liked by families are (1) pastry: barley bread, quinoa cake, apple cake and (2) recipes: vegetable soup, quinoa snacks, *queso humacha*, wheat in the Valencia manner, broad bean *api*, corn porridge with milk.

In order to improve the operation of the workshops, those interviewed pointed out the need of:

- More preparations in the cookbook
- Including more preparations using meat
- Greater follow-up to this activity on the part of health staff
- Persisting in the application of the learned knowledge

### Sustainability

Currently the communities have greater access and availability to foods, families do a better food distribution according to their individual needs (specially for children under five years of age) and through the “Healthy feeding with local products” workshops the feeding variety, quality and innocuousness is met.

When the mothers interviewed were asked if they plan to continue preparing the recipes, they said that they know that ADRA will not be anymore in the communities, but they will carry on the workshops working as an organization. On the part of Community Health Agents, they said that they would continue leading the workshops as it will be easier with everyone having the cookbook.

Nobody will take away what we have learned, this knowledge is forever and we can cook and sell anywhere.  
(María Elena Gutiérrez, family mother – La Plateada community)

## 8. Lessons Learned

### Feeding practices inside Support Groups

Initially, workshops were led individually by field professionals in their municipalities. This method was considered enough for the behavior change without the necessity of elaborating a cookbook that consolidates the cookery recipes based on local products. During the development of workshops some mothers had to write and copy the recipes in their notebooks, which made learning difficult. ADRA's health team saw that the elaboration of a cookbook, covering the nutritional requirements of families and containing the intended organoleptic features, was necessary to improve the workshops. As a result of the distribution of cookbooks to families we could observe greater adoption of cookery preparation practices (including pastry). Currently, CHAs lead follow-up activities to these practices.

## 9. Success Story

### **Perseverance for the behavior change through feedings practices at home**

**Community:** Huancarani Centro

The community of Huancarani Centro is located 15 km away from the municipality of Incahuasi and is at an altitude of 3200 m.a.s.l. It has a population of 76 families (members of the trade union) whose main activity is agriculture. In spite of not having irrigation systems they produce broad bean, potato, *papalisa*, corn and wheat.

Here, 50% of householder men migrate to work to Santa Cruz or Argentina because they do not have enough arable land. So, women are left in charge of the household support, neglecting the household chores and care of their children.

In the last meeting we held in March, we contentedly heard positive testimonies from parents regarding the adoption of food preparation practices at home after the training on the use of the cookbook, for example: The school board president, Mr. Aiza, had 2 of their daughters with moderate malnutrition. Thanks to the persevering visits of CHAs his family changed their feeding practices and now his two daughters have a normal weight for their age. That is why the school board has committed itself to include the social network in the next general meeting as a community authority with the power to participate and decide.

We should highlight that in former community meetings Mr. Aiza was always negative, pessimist and skeptical to the behavior change and feedings practices at home. He used to think: *"Women are the only responsible for the care and feeding of children, what for do they meet then? And if they are not able to do it, then our children will grow just like that, because we are too busy at our job"*. But now he himself declares to the community, and specially to the men group, it is possible that their children have a good weight through the care given by both parents at home thus ensuring their mental development and health, he did so and now he is proud to see that their children are not anymore registered in red (undernourished children) in the malnutrition risk map of his community. Field professionals learn day by day, but they require a lot of perseverance and patience in the development of their activities, and these testimonies from people that used to always contradict are very satisfactory and motivate them to continue working with perseverance in the communities.

## 10. Reflections on the experience

The **"Healthy feeding with local products"** strategy has achieved more interest on the part of mothers to learn, because they do it in a practical and easy way. The participants feel more motivated when they have a cookbook to guide their preparations, which allows them to improve the nutritional status of their families and specially of the children under five years of age.

The issues addressed in the workshops help the mothers to feel that they attend not only to cook but to learn why to use the food groups, how often and what quantity of meals they should give their children

according to age, and also the main moments for hand washing. It is recommendable to address these issues in the workshops. Some mothers suggested the workshops should have afternoon schedules.

One unexpected result of the workshops is the organization in small groups and turns of the participants to sell their preparations in community fairs and meetings. This has contributed to a greater dissemination of the **“Healthy feeding with local products” strategy, achieving for example authorities of the municipality, other organizations and visitors in their community.** This, in turn, reinforced the application of the healthy practices in their households.

“A community group obtained a contract with the municipal government for the preparation of cookies for school breakfast”  
(Judianne MacNulty, FANTA Evaluator – Final Evaluation Report)

During winter there is not a frequent access to vegetables, so, it is important to schedule practical sessions of vegetable dehydration and ensure its application through monitoring home visits and recipe preparation workshops, until mothers get used to it.

## ANNEX A

### LIST OF ACTORS

Direct Actors from the Experience			
Group or type	Representative	Priority level	Methodology of Information gathering
Tacomayo community	1. Adela Vasquez 2. Licet Rengifo 3. Teresa Villca 4. Mayomi Rengifo	A A A A	Focal Group 1
La Plateada community	1. Antolina Budia 2. Marfa Caracoles 3. Margarita Vedia 4. Maria Elena Gutierrez 5. Marina Mendez	A A A A A	Focal Group 2
Community Health Agents	1. Margarita Miranda 2. Josefa Gusman 3. Blanca Castillo 4. Ema Barrios	A A A A	Focal Group

Indirect Actors from the Experience			
Group or type	Representative	Priority level	Methodology of Information gathering
Health Staff	1. Delma Farfan 2. Roxana Camargo	B B	Focal Group
Field Professional	3. Susan Alcoba	B	Individual interview

ANNEX B

REVISED DOCUMENTATION

Complementary Information Available			
Description of the Information	What for it may be useful?	Where is it and who has it?	Responsible of obtaining and analyzing it
Community AIEPI Guidebook	A. Description and analysis of the initial situation and its context	Health Component, Regional Office	Health Component Assistant
Survey of positive deviation	A. Description and analysis of the initial situation and its context	Health Component, Regional Office	Health Component Assistant
Cookbook	A. Description and analysis of the initial situation and its context	Health Component, Regional Office	Health Component Assistant
Reports of the complementary feeding indicator	B. Intervention process	Monitoring Unit	Monitoring and Evaluation Manager
Practice adoption reports	B. Intervention process	Health Component, Regional Office	Health Component Assistant
Reports of home visits for the adoption of practices	B. Intervention process C. Final or current process	Health Component, Regional Office	Health Component Assistant
Community history and location	A. Description and analysis of the initial situation and its context	Health Component, Regional Office	Health Component Assistant
Success Story	C. Final or current process	Health Component, Regional Office	Health Component Assistant
Photos	A. Description and analysis of the initial situation and its context B. Intervention process C. Final or current process	Health Component, Regional Office	Health Component Assistant



	26. How was the recipe elaboration based on local products verified in your community?
	27. How often did you participate in the preparation of foods based on local products in your community?
	28. How often did you prepare meals with local products for your family? Why?
	29. Which preparations from the recipes learned do you like the most?
	30. Did you have the ingredients available for the preparation of the recipes? (dehydration)
	31. What advantages or disadvantages could you see in the preparation of the recipes?
	32. What difficulties did you have when preparing the recipes?
Current situation	<b>ORGANIZATION</b>
	33. Now you know how to prepare recipes based on local products, what do you think?
	34. What activities do you carry out with the knowledge acquired on the elaboration of recipes? (sale)
	35. What do you do when you do not have foods (vegetables and fruits) available for the preparation of your meals?
	<b>ELABORATION</b>
	36. What is the importance of preparing the recipes with the three food groups?
	37. Is there availability of local products to prepare your meals with the three food groups?
	<b>IMPLEMENTATION</b>
	38. Do you think it is more cost-effective to use local products for the preparation of meals for your family?
	39. How often do you prepare meals with local products for your family? Why?
	40. Do you have any experience in which the nutritional status of your child has improved based on a feeding with local products?
	41. Which recipes do you prepare based on local products?, can you name them?
	42. Which preparations have greater popularity in your family?
	<b>SUSTAINABILITY</b>
43. Do you plan to continue elaborating recipes based on local products? Yes No How?	
	44. Do you and your family like the preparations based on local products?
Lessons Learned	
	45. If you could start again your training on the elaboration of recipes, what things would you do in a different way?
	46. If you could start again your training on the elaboration of recipes, what things would you do in the same way?
	47. What things would you never do again?