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MATERNAL-CHILD PROGRAM EVALUATION

IMPLEMENTED BY CRS/CARITAS

UNDER THE PL-480, TITLE II PROGRAM

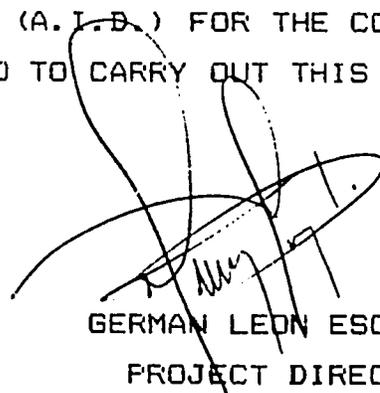
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## ACKNOWLEDGEMENTS

CONSULTORES EN MERCADEO DE CENTROAMERICA, EVALUATED THE MATERNAL-CHILD PROGRAM IMPLEMENTED BY CRS/CARITAS, UNDER THE U.S. PL-480, TITLE II REQUIREMENTS.

THIS DOCUMENT IS THE RESULT OF THE EFFORTS OF THE TECHNICAL PERSONNEL OF CONSULTORES EN MERCADEO DE CENTROAMERICA, FOLLOWING ESTABLISHED PARAMETERS TO ENSURE ACCURATE AND RELIABLE RESULTS.

WE WOULD LIKE TO EXPRESS OUR GRATITUDE TO THE AGENCY FOR INTERNATIONAL DEVELOPMENT (A.I.D.) FOR THE CONFIDENCE CONFERRED IN CONSULTORES EN MERCADEO TO CARRY OUT THIS STUDY.

A handwritten signature in black ink, appearing to read 'German Leon Escobar', is written over the typed name and title below.

GERMAN LEON ESCOBAR  
PROJECT DIRECTOR

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## INTRODUCTION

This report presents the final results of a nation-wide evaluation of the Maternal-Child Health Program implemented by CRS/CARITAS, under the PL-480, Title II Food Assistance Program.

The complete study is composed of an evaluation of the following areas:

- a) Nutritional Impact.
- b) Health and educational aspects of the Maternal-Child Program.
- c) Effective distribution of a complementary food ration to the target beneficiaries.
- d) Unsatisfied demand of future rations by beneficiaries.
- e) Administration and control of the distribution of rations.
- f) Economic Impact.

The results, including the conclusions and recommendations, are detailed by appropriate facts areas emphasizing the most relevant facts. In like manner, an executive summary contains a summary of the evaluation of the total program.

The final document is presented in two sections:

- a) Section One includes the methodology used and the Conclusions and Recommendations, and
- b) Section Two includes the Tables developed from the data collected.

I.- EXECUTIVE SUMMARY

1.1 General

The AGENCY FOR INTERNATIONAL DEVELOPMENT (A.I.D.), as prescribed in Contract No. 519-0178-C-00-8440-00, contracted the services of the firm, CONSULTORES EN MERCADEO DE C.A., to evaluate the MATERNAL-CHILD HEALTH PROGRAM (M-CH), sponsored by CATHOLIC RELIEF SERVICES (C.R.S), and implemented by CARITAS DE EL SALVADOR, as established by a PL-480, TITLE II Agreement which regulates the donations of the people of the United States of America. This evaluation contains Conclusions and Recommendations as set forth in the Scope of Work of the above mentioned contract.

The CARITAS/El Salvador program was found to be consistent with the objectives and goals established in the Public Law-480, TITLE II. The M-CH program benefits a population of severe poverty which demands more wide-spread assistance.

In El Salvador, the PL-480, Title II is carried out in a satisfactory mode, in spite of the socio-political conditions of the country. Program beneficiaries reflect a relative improvement in nutritional status. The program provides food rations in their majority in accordance with the basic food basket requirements. Distribution of the rations is carried out in a highly effective manner. Beneficiaries receive nutritional education of long lasting benefits and in turn, participate in community development demonstrated by their voluntary cooperation with the M-CH program activities.

On a short-term basis, it is very difficult to offer an immediate and complete solution to the problems which affect the nutritional status of the country. The program activities which combat malnutrition will be effective once the M-CH components are implemented uniformly.

## 1.2 Nutrition

### a) Comparative nutritional study

Findings of the comparative nutritional study of children who participated in and those who did not participate in the program indicate no significant difference in the incidence of malnutrition. The distribution of the population by nutritional categories was similar in both groups.

Considering that the beneficiary population was composed of children who entered the program with a certain degree of malnutrition and were released when a satisfactory nutritional level had been reached, it is to be expected that the M-CH beneficiaries would reflect a larger percentage of malnourished children.

As the results of the study demonstrated a similar distribution between beneficiaries and non-beneficiaries of the M-CH program, this indicates a positive effect of the M-CH program on the beneficiaries.

Both groups indicated a similar way of life with respect to number of family members, age group, low educational level, high illiteracy index, types of occupations for both sexes, shelter conditions, and an inadequate health environment.

b. Study based on beneficiaries records at the Nutritional Centers

An analysis of the Nutritional Centers records of the M-CH program reported positive nutritional changes among children in a six-month period; improving from stages of severe malnutrition to moderately at risk, and in some cases even to normal stages.

The above phenomenon permits us to infer that the complementary food rations distributed by CARITAS impact positively on program beneficiaries, fulfilling the objectives and goals of the M-CH program.

1.3 Effect of the basic food ration:

The M-CH beneficiaries are in a better position to reach the minimum nutritional requirements than non-beneficiaries, with the assistance of highly nutritive foods. Foods that can make that difference are used in the M-CH program.

The basic food diet for families with low income must include products such as corn, beans, rice, milk and oil, four of which are distributed by CARITAS.

When the team compared the basic food basket (corn, beans, rice, oil and milk) with those included in the complementary ration distributed by CARITAS, it was found that the food ration meets the Public Law requirements, and complements food preferences of this group. A possible inclusion of beans would improve the beneficiaries nutritional status without efforts to develop acceptance.

#### 1.4 Health

The health conditions in which children grow are unfavorable to establish an environment which can contribute to improve the child's nutritional status. The principal problems identified were:

- a. Inappropriate shelter, generally a one-room house, where various family social areas are included.
- b. Most of the beneficiaries do not have access to potable water, obtaining water from wells, rivers, public taps, etc.
- c. The bathrooms are located outside the house, and are generally outhouses.
- d. The majority of families keep pets or other domesticated animals in the immediate areas of the house.

The mass vaccination campaigns carried out by the Ministry of Health contribute to some degree to improve the health condition of the children nationwide.

The increase in preventive health care services, nutritional education, and children growth monitoring are factors which have contributed to improve children's health.

#### 1.5 Population Assistance

The distribution of food products at the Nutritional Centers attract registered beneficiaries as well as other people who meet the eligibility criteria and are waiting to receive nutritional assistance when the opportunity present itself. This indicates a potential for additional beneficiaries for the M-CH program.

#### 1.6. Education

A fundamental part of the objectives and goals of the M-CH program is the nutritional and health education component. The degree of benefit that can be derived from the food ration depends on the nutritional education. Volunteer personnel working at the Nutritional Centers are highly motivated and they carry out their responsibilities efficiently but their work could be expanded if better trained in nutrition and health facts.

### 1.7 Administration and Control of the M-CH Program

The selection of beneficiaries and distribution of the rations meet the M-CH criteria. The system of identification of target population groups is effective, as required by the PL-480, and is based on the child's nutritional status as per weight/age and on his being a part of a low-income family.

The food distribution channel from the CARITAS warehouses to the beneficiaries is an essential part of the M-CH program success. The CARITAS plan is the following:

Each post of the distribution network keeps precise records of receipt and delivery of foods. The Dioceses and Nutritional Centers have adequate warehouses to store the products for the period of time required for the actual distribution.

The distribution network extends to the target population as defined by the PL-480, TITLE II criteria, since each one of the Dioceses has a predetermined area in which to supply Nutritional Centers to obtain higher coverage of the beneficiaries.

#### Economic Impact

The quantities of imported commodity for the M-CH program are not of significant size to serve as a disincentive to the population. When comparing annual availability with internal demand and requirements, it

was noted that the amount of foods imported do not exceed 5% of any of the rubrics: cornmeal, rice, powdered mil and oil

The quantities distributed by CARITAS benefit families with low income levels by providing complementary rations, which are delivered on a monthly basis precluding their sale on the domestic market.

## II. BACKGROUND

### 2.01.00 Nutrition

Malnutrition among children in El Salvador is a high risk and permanent problem due to a multitude of factors ranging from biochemical, and clinical aspects to economic and socio-political conditions; which for many developing countries, constitute the principal public health problem.

The high rates of retarded growth in infants and pre-school children in the third world is related to various factors; the most important of which are nutritional deprivation, the high frequency of infections, especially acute diarrhea. Other less important factors are high rates of fertility, unsatisfied demand for public health services, and other negative cultural and social characteristics.

Over 40% of the families in Latin America are living below the critical level of poverty. This percentage includes approximately 60 million children; but worse still, 20% of the families of this area live in conditions of absolute poverty described as "a level of income which does not permit the purchase of sufficient amounts of food to cover the basic necessities for all the members of the family." 1/

One of the consequences of this situation is that infant mortality in Latin America is five times higher, and 20 times higher in pre-school children than in developed countries.

It is important to evaluate the dynamic aspects of this process since similar changes will probably occur in poorer countries when socio-economic development takes place. This mortality increase linked to age and the appearance of this type of malnutrition have coincided with the high rates of migration of rural populations to urban areas. As a consequence, precarious semi-urban populations such as marginal communities, "tugurios", shacks, etc., have appeared. In these areas, the provision of potable water is inadequate and residue elimination non-existent or rudimentary, and in the best of cases, sporadic.

1/ Source: Nutrición Clínica en la Infancia - Dr. Fernando Monckenber, Instituto de Nutrición y Tecnología de Alimentos (INTA), Chile. Cap. 6.

The adaptation process to these new conditions imply, in addition, that rural individuals abandon their traditional habits and cultural values. One of the principal consequences is the decrease of maternal breastfeeding, prematurely exposing the infant to intense microbiological contamination in the environment.

Ignorance of adequate hygiene practices increases the risk of infection diseases, especially acute diarrhea, a source of high morbi-mortality rates, typical of infants in these countries. On the other hand, living in the city increases access to medical attention, education and nutrition.

#### 2.02.00 Health

Because the child's growth and development starts in the uterus and breastfeeding is the principal source of nutrition in the first year of life, for most of the developing countries, the nutritional and health status of the mother are important factors which contribute to a child's growth. Although for many children of the Third World retarded growth is an adoptive mechanism to unfavorable conditions, the negative functional consequences are very important. Unless this vicious cycle is broken, retarded growth as a side-effect, will cause more retarded growth in future generations.

It was found that newborns who were born small for their gestational period, and children of malnourished mothers, have immunological defects less cognitive development than those from normal parents. The immunological response of these malnourished children is altered and as a result, the prevalence of infections is higher, longer and more complicated for them.

Thus, one may conclude that the negative impact that diarrhea has on the child's growth affects the child in various ways:

- a. Decrease in ingestion of foods (vomiting, anorexia, mothers restricted feeding),
- b. Foods consumed are not properly absorbed,
- c. Metabolic repercussions,
- d. Loss of calories.

The first evidence of malnutrition is the loss of weight following catabolism of the muscle mass and subcutaneous tissue. The second phase is decrease/growth or no growth at all. During the third phase, the metabolism is slow, spontaneous physical activity is slow and hypothermia occurs.

#### 2.03.00 The Nutritional Status of the Country.

The nutritional condition of the Salvadoran population is a pervasive problem that affects large sectors of the population; determining factors are poverty and underdevelopment.

The most affected sectors are those with the lowest incomes, which have, in their majority, traditionally lived in rural areas of the country. During the last decade, however, due to the socio-economic conflict, the urban marginal zones have also been affected and merit special attention due to the conditions of poverty or extreme poverty of these inhabitants.

The groups exhibiting more prevalence of malnutrition are those who require an increased nutritional supply, e.g. children under six years of age, pregnant women and lactating mothers.

Of these so called "vulnerable groups", according to the Nutritional Food Diagnostic of El Salvador, 1979, 53% of the children under five years old were underweight, that is, they suffered from some degree of malnutrition; and 10.5% of the children (85,697 children) exhibited severe or moderate malnutrition, indicating a high risk of morbi-mortality.

According to that report, the areas which had a higher incidence of malnourished children were found in the East zone, San Miguel, Morazan, La Union; and Paracentral zone of the country (San Vicente, Cuscatlan and Cabañas).

The diffusion across the nation of the problem which is manifested by the high percentages of children with low weights in relation to their heights is also alarming. The highest percentages of children with low weight/heights ratios (18.5%) occurred in the public rural school students. Private schools and public urban schools had 10% and 11% respectively. These percentages are cause for concern.

In addition to specific protein-calorie malnutrition, key deficiencies are anemia due to iron deficiencies, Vitamin A deficiency, Vitamin B complex deficiency, and iodine deficiencies.

These nutritional problems have negative implications mainly during the growth and development of children, in breastfeeding, low birthweights, in energy and productivity, in school performance and in adults.

The nutritional problems, as viewed, are a result of multiple interrelated socio-economic factors. The most important of these are: inappropriate food consumption, as a result of low levels of family income, unemployment and under-employment, scarce availability of food, and inadequate systems of commercialization of basic food supplies.

In addition, adverse socio-economic conditions inhibit proper absorption of foods as caused by frequent occurrence of infectious diseases, such as diarrhea and intestinal parasites, owing to the low health services coverage, inappropriate housing conditions, and inadequate environmental sanitation.

To make matters worse, there is a high level of illiteracy in the population which impedes the acquisition of good health, food, and nutritional practices, and general cultural beliefs are contrary to the proper treatment of specific illnesses. All these factors have been exacerbated by the socio-political crisis of the country. SEDONAN/MIPLAN. Diagnóstico Alimentario Nutricional de El Salvador, 1983.

#### 2.04.00 Administration and Organization of the Program

The Maternal-Child Program activities (M-CH) which distribute food to the program beneficiaries, are managed and administered by the following institutions:

- a. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)
- b. CATHOLIC RELIEF SERVICES (CRS), and
- c. CARITAS DE EL SALVADOR (whose administrative responsibility will be detailed later)

#### AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

USAID/El Salvador plans, coordinates, and supervises the PL-480, Title II Programs, as set forth in the Agreements signed with CRS of Washington, establishing the conditions for the delivery of the PL-480 food products to the El Salvador port of entry.

One of USAID's administrative responsibilities is the supervision of the total program from the timely shipment and delivery of the foods to the beneficiaries. For these purposes, USAID shall meet directly with CRS, CARITAS Nacional, CARITAS Diocese, Nutritional Centers, and Beneficiaries.

USAID's representatives supervise the distribution of food products at the Nutritional Centers, reviewing the reports which record the quantities of food products distributed, to determine leftovers, waste, shortage, etc.

CATHOLIC RELIEF SERVICES (CRS)

CRS is the sponsoring agency for the M-CH program. Its activities are in accordance with the terms established in the bilateral contract with USAID.

The CRS main objective is to provide humanitarian food assistance to the country, as a consignee of the foods, and by performing the following tasks:

- Prepares Annual Estimate Requirements (AER).
- Act as liaison between the Government of El Salvador and the country of origin of the food stuffs.
- Serve as intermediary between USAID and CARITAS.
- Controls and supervises the development of the program.
- Submits Annual Action Plans for the M-CH program.
- Prepares periodic program progress reports for CRS/New York, USAID and CARITAS.
- Participates in the drafting of the AER which includes the following tasks:
  - Estimate the annual food requirements for the M-CH program.
  - Monitor compliance with the PL-480, Title II requirements.
  - Participate in the food import process.
  - Provide technical and administrative assistance to CARITAS personnel.

Although CRS has limited personnel for the aforementioned activities, CRS supervises the M-CH activities implemented by CARITAS, Dioceses and some Nutritional Centers. When irregularities are detected, CARITAS is advised to provide a quick solution.

### CARITAS

The implementation of the M-CH program is the exclusive responsibility of CARITAS of El Salvador as established in the Cooperative Agreement between CRS and USAID.

Annual Action Plans establish the points of reference related to the M-CH program: size of the ration, type of food, registry control, personnel resources and others, which are basic components of a proper program operation.

The CARITAS organization is based on the structure of the Dioceses of El Salvador, which is composed of seven Diocese Centers, located in regional service areas. The administrative functions are implemented vertically and directly with the purpose of implementing the M-CH program activities.

### DIOCESE CENTERS

The Diocese Centers are regional offices under the Archdiocese of San Salvador and the other Dioceses of the country.

Each Diocese Center is administered and managed by a Diocese Director, which implements strategies developed by CARITAS. Each Director, however, independently determines the provisions and requirements for the development of activities, based on each region's social-economic conditions, keeping in mind the objectives and goals of the program.

The Diocese Centers are located in the cities of the Catholic Diocese seats of the country, which generally are quite densely populated, and thus, are strategic points for the physical distribution of food products. CARITAS's headquarters include administrative and field personnel, whose responsibilities are designed and implemented by the Diocese Directors.

Work responsibilities are many, especially in the supervision of field work, and the number of vehicles is limited, CARITAS personnel do not visit the geographic points frequently enough due to the lack of personnel and vehicles.

Each Diocese has under its jurisdiction a number of Nutritional Centers, which are described in the following Table.

#### NUTRITIONAL CENTERS

The Nutritional Centers are community organizations which are in charge of actual food distribution to the beneficiaries, and implementation of nutritional education and training requirements to complete the program in all its phases.

These service units are composed of volunteers which form a Board of Directors made up of a President, Treasurer, and Secretary, and Vice-Presidents who are in charge of the food distribution. This Board of Directors makes every possible effort to implement a successful program.

The Nutritional Centers are located in areas of low income or in areas where beneficiaries must gather to develop the program activities.

Each distribution post is always supervised by two or more directors who by their leadership and experience can ensure that these events be implemented in an orderly manner.

The following Table represents the present number of active Nutritional Centers.

NUTRITIONAL CENTERS BY GEOGRAPHIC LOCATION BY DIOCESE

DIOCESE	NUTRITIONAL CENTERS	BENEFICIARIES	AVERAGE
SAN SALVADOR	131	35,808	274
SANTA ANA	103	21,175	206
SONSONATE	43	91,200	214
SAN VICENTE	63	13,037	207
ZACATECOLUCA	36	9,350	260
SAN MIGUEL	58	20,600	355
SANTIAGO DE MARIA	65	25,450	392
TOTAL	499	134,620	270

As the previous table shows the location of the Nutritional Center distribution by areas of demand is a satisfactory policy since the truly vulnerable populations are being reached. This systems allows nutritional assistance to reach the population farthest from the urban cities, where malnutrition is more prevalent due to poor environmental conditions.

### BENEFICIARIES

The beneficiaries are persons who consume the complementary ration of the M-CH program. Their general characteristics are: children under six years of age with some degree of undernutrition, lactating mothers and/or pregnant women.

Enrollment of beneficiaries is at the Nutritional Centers, after authorization by the Board of Directors, who verify compliance with the minimum requirements for eligibility as beneficiaries. Enrollment is completed once the beneficiary registry card is issued.

Frequent visits during distributions and careful observations, confirm the existence of a demand for food assistance by a portion of the population not enrolled in the program.

### III. GOAL AND PURPOSE OF THE FL-480, TITLE II PROGRAM.

According to AID Handbook No. 9, dated January 19, 1981, a description and the specific objectives of the MCH program are as follows:

#### Description

The MCH program covers poor undernourished children under six years of age, lactating and/or pregnant women, with emphasis on children under three years of age. These groups must be composed of infants in poor or undernourished condition, since these variables are used to measure the effectiveness and the scope of the system that is used to reach the selected target groups.

The projects are designed to provide necessary nutrition together with education about nutrition, child care and other related themes which are important to a child's physical state.

#### Objectives

The general objective of the program is to improve the nutritional status of children under six years of age, and lactating and/or pregnant women, which purpose must be accomplished based on the following specific objectives:

- a) Provide food supplements for program beneficiaries to ensure an adequate diet for children under six years old, plus lactating and pregnant women.
- b) Educate mothers about child education and care.
- c) Develop local capacity to operate a self-sufficient M-CH health program.
- d) Integrate these objectives with existing or planned services in M-CH health, education and other community services.

#### IV. TARGET GROUPS OF THE INVESTIGATION

##### 4.01.00 Investigations Carried Out

##### 4.01.01 Beneficiaries Participating

An investigation was conducted at the beneficiary level to determine the degree of compliance with the program requirements, its image, participation, personnel, etc. This data is aimed at defining a beneficiary profile as it relates to the condition planned for the program.

##### 4.01.02 Nutritional Centers Participation

The Nutritional Centers have signed an agreement with CARITAS in which their responsibilities are specified to ensure the success of the program. All activities which are the Centers' responsibility were evaluated.

##### 4.01.03 Health Status

An evaluation of the health status of children who participated in the program and of those who did not participate in the program was made in order to compare both groups.

##### 4.01.04 Nutritional Changes

The target population was evaluated in two manners. A comparison was made between children registered in the program and those not registered (control group), and an evaluation was done based on longitudinal information of individuals children on final weights as taken and recorded at Nutritional Centers.

##### 4.01.05 Diocese Centers Participation

Interviews were conducted with each Diocese Director, to determine which activities were implemented in support of the M-CH program, and quantities of resources such as personnel, equipment, and efforts which were available to promote the program success.

#### 4.01.06 Economic Impact

An analysis was made based on information from various institutions such as the Ministry of Agriculture, General Directorate for Statistics and Census, Ministry of Planning and USAID to compare the proportionate amount of the food products imported through the M-CH program to the total supply available on the national market for human consumption.

#### 4.01.07 CRS, CARITAS and USAID

It is worth mentioning that during meeting held with the representative from each of these agencies, the responses were reviewed as an indication of each agencies' nutritional policy.

## V. INVESTIGATION DESIGN

### 5.01.00 Beneficiaries

#### 5.02.01 Background

In the M-CH program, sponsored by CRS and implemented by CARITAS de EL SALVADOR, commodities provided by the PL-480, TITLE II Program, are distributed targeting children under six years of age, lactating and pregnant women.

The food is provided to the beneficiaries through the Nutritional Centers by volunteer personnel groups who transport the products from the warehouses to the centers.

The food products are distributed to the beneficiaries in individual rations. Quantities vary according to the type of product, based on weights established per ration; for liquids the Centers utilize a standard measure, "the cup". Cereals are provided in plastic bags, and liquids such as oil are distributed in containers which are provided by the beneficiaries.

Each beneficiary is registered and is identified by a card which includes: name of the Diocese, name of the Center, name of the beneficiary or beneficiaries, registration mother, mother or beneficiary person, and months during which he/she will receive the food supplement. Mothers of beneficiaries or designees are entitled to receive a ration depending on the number of persons registered under the program.

These beneficiaries are community members, with limited economic resources, living in extremely poor conditions who meet the beneficiary eligibility criteria, a child under six years of age, or a lactating or pregnant women.

Each of these beneficiaries makes a voluntary contribution at the time of distribution, which is utilized to pay part of the operating costs of the program.

The M-CH program policy is to provide monthly complementary rations to improve the beneficiary nutritional status and which must be consumed only by the program beneficiaries.

The beneficiaries receive, as long as they stay in the program, a ration which is expected to last for one month.

The program includes two components: one is food delivery and the other, the nutritional education component.

Therefore, beneficiaries of the M-CH program, were interviewed in the evaluation to ascertain the effectiveness/and scope of the program.

#### 5.01.02 Objectives

The purpose of this section is to determine the impact of the program among the beneficiaries, the importance of the commodities for the target population, attitudes of the beneficiaries about the phase-out of the nutritional assistance, development of food consumption habits, verification of the food's ultimate destination, and comparison between beneficiaries.

Based on the above points, the investigation is oriented towards the following specific characteristics:

- a. Number of beneficiaries registered: children under six years of age and lactating women.
- b. Blood relation between beneficiaries and persons receiving the commodities.

- c. Number of family members.
- d. Distance between the Centers and the beneficiaries home.
- e. Original residence of the beneficiary and reasons for moving.
- f. Period of time they have been receiving food products.
- g. Variety of food received, its importance and consumption.
- h. Food delivery frequency.
- i. Beneficiaries contribution to the Centers.
- j. Food benefits.
- k. Safekeeping of the program card, and who controls it.
- l. Participation in duplicate food programs. Type of assistance provided by other programs.
- m. Knowledge of donor of food supplement.
- n. Knowledge of appropriate food preparation.
- o. Food consumption.
- p. Other variables.

#### 5.01.03 Universe or Population.

The universe or population includes persons over 20 years of age, requesting food products on behalf of the beneficiaries and who are duly registered under the program at the respective Nutritional Center.

The beneficiary list is kept and filed by volunteer personnel who assist in commodity distribution, since they know most of the beneficiaries and establish informal relationships with them during the period of time in which they attend them.

#### 5.01.04 Size of the sample

The size of the sample was 1,641 persons or beneficiaries interviewed.

The number of interviews was determined based on the following statistical parameters: a 95% level of confidence over the sampling process, a possibility that 90% of the interviewed are duly registered under the CARITAS program and a sampling error of 1.5% on both sides of a normal curve.

The low percentage of error applied in the sampling to determine the size of the sample guarantees a higher degree of precision in the final results.

#### 5.01.05 Distribution of the Sample

The distribution of the sample was ensured by taking a minimum of five interviews per center, in the 300 Nutritional Centers across the nation as was stipulated in the evaluation contract, in accordance to the CARITAS geographic coverage in El Salvador.

The distribution of the sample is in accordance to the proportion of beneficiaries in each Diocese; informants were chosen from all parts of the country, and thus a high degree of representativeness was achieved contributing to the validity of the sample.

## DISTRIBUTION OF THE SAMPLE BY DIOCESE

DIOCESE	PROJECTED INTERVIEWS	NUMBER OF INTERVIEWS CONDUCTED	PERCENT CONDUCTED	SAMPLE EFFICIENCY
SANTA ANA	370	370	22.6	100.0%
SONSONATE	165	181	11.0	109.7%
SAN SALVADOR	410	272	16.6	66.3%
SAN VICENTE	230	245	14.9	106.5%
ZACATECOLUCA	160	184	11.2	115.0%
SANTIAGO DE MARIA	200	199	12.1	99.5%
SAN MIGUEL	160	190	11.6	118.8%
TOTAL	1,695	1,641	100.0	96.8%

## 5.01.06 Informants Selection

Selection of informants was conducted from Nutritional Center registries, as a minimum of five informants per Center as specified in the contract. These five informants were chosen at random without any restrictions, at the beginning of a food distribution day.

Any person receiving food and who would exhibit it to the interviewer was considered as a possible candidate.

Once the required number of informants were chosen, the remaining beneficiaries were allowed to leave.

#### 5.01.07 Data Collection

The data was gathered through personal interviews. Due to the beneficiaries educational cultural levels, some expressed confusion about certain facts they submitted, causing the rejection of those questionnaires by the supervisors. In addition, during the review phase, interviews with inconsistencies in the facts presented were eliminated.

#### 5.01.08 Source of the Information

The selection site was the Nutritional Center as the fixed element in the universe and the source of the information was the persons receiving commodities.

#### 5.01.09 Sampling Method

The sampling method used was the PROPORTIONAL SAMPLING STRATIFIED BY DIOCESE, with equal numbers in each Center. This method provides better representativeness in the results, since information is gathered from every area of the country.

#### 5.01.10 Field Questionnaire

The field questionnaire utilized for data collection is included in the Annexes.

## 5.02.00 Nutritional Centers

### 5.02.01 Background

The Nutritional Center is the intermediary element between the Diocese and the beneficiaries, executing policies and strategies for delivery established by CARITAS Nacional Office.

An operational contract exists between the Diocese and the Centers, which sets forth the responsibilities of each party.

Each Nutritional Center has responsibility for the food program ranging from selection and registry of beneficiaries to actual physical delivery and is ruled by a Board of Directors elected by the community.

Each Nutritional Center has independent administrative functions for proper program operation such as: study and analysis of commodity requirements to satisfy the food necessities of the beneficiaries, beneficiary registry control, contributions, commodity inventory, beneficiary listings, and monitoring the commodity distribution.

Each Center consisting of a distribution location and a store room, is located in the volunteers' neighborhoods.

Transport of the commodities from the Diocese store room to the Centers is the volunteers' responsibility. Some Centers are located in areas inaccessible by automobile and other means of transportation such as carts or pack animals are required.

### 5.02.02 Objectives of the Investigation

Because the Nutritional Centers are the link between beneficiaries and the commodities, it is important to assess the degree of efficiency of each unit, in order to determine their administrative capability and their compliance with the regulation set forth in the contract signed between them and the Dioceses.

The responsibilities of each Center that are specified in the contract, as mentioned above, are the following:

The Center agrees to:

- a. Keep updated lists of all beneficiaries, which are children under six years of age, lactating and pregnant women.
- b. Maintain a record of the beneficiaries weight every three months to evaluate their nutritional progress.
- c. Maintain updated financial statements showing debits and credits of the beneficiary contributions.
- d. Prepare monthly reports of commodities received, distributed and surpluses, as well as income derived from beneficiary contributions.
- e. Submit the monthly report together with any proceeds before the 5th day of each month to the Diocese or to the corresponding office.
- f. Maintain dry, clean and secure warehouses to store the commodities.
- g. Permit inspections from CARITAS and CRS personnel whenever they consider it necessary.

h. All funds which are generated should be only utilized in deworming campaigns, distribution of vitamins, vaccinations, purchase of scales and other emergency expenditures.

i. Expenses for more than fifty Colones (C50.00) must be authorized by the supervisors.

The following specific objectives are included in this evaluation:

- a. Determine the coverage and range of the Nutrition Center.
- b. Personnel and training received.
- c. Beneficiary selection process.
- d. Ration composition.
- e. Commodity ditribution process.
- f. Benficiaries monitoring and registry.
- g. Participation of the program beneficiaries.
- h. Availability of equipment and materials required for program activities.
- i. Program Image.
- j. Other variables.

#### 5.02.03 Universe or Population

The universe or population includes all of the Centers that operate the program, totalling 499 Centers, according to the data provided by individual Dioceses. These Centers are distributed throughout the Dioceses in the following way:

## NUTRITIONAL CENTERS BY DIOCESE

DIOCESE	NUMBER OF NUTRITIONAL CENTERS	PERCENTAGE
SANTA ANA	103	20.7
SONSONATE	43	8.6
SAN SALVADOR	131	26.6
SAN VICENTE	63	12.6
ZACATECOLUCA	36	7.2
SANTIAGO DE MARIA	65	13.0
SAN MIGUEL	58	11.6
TOTAL	499	100.0

The information was provided by each Diocese Director, based on the latest reports available at the beginning of the evaluation.

## 5.02.04 Size of the Sample

The actual size of the sample totals 235 Nutritional Centers which are calculated based on the following statistical parameters: a 95% level of confidence of the sampling process, with a possibility that 90% responded to the questionnaire, and a sampling error of 3.9% on both sides of the normal curve.

## 5.02.05 Sampling Distribution

Representativeness of the results is based directly on the distribution of the sample; the results depend greatly from the sampling distribution, greater geographic dispersement of the informants will lead to greater representativeness of a geographic area.

The following table demonstrates the actual distribution of the sample contributing to the final results.

## DISTRIBUTION OF THE SAMPLING BY DIOCESE

DIOCESE	TOTAL NO. OF NUTRITIONAL CENTERS	PERCENT OF TOTAL	SAMPLING DIST.	INTERVIEWS CONDUCTED	PERCENT INTERVIEWED
SANTA ANA	103	20.7	62	53	85.5%
SONSONATE	43	8.6	25	24	96.0%
SAN SALVADOR	131	26.3	79	40	50.6%
SAN VICENTE	63	12.6	38	30	78.9%
ZACATECOLUCA	36	7.2	22	28	127.3%
SANTIAGO DE MARIA	65	13.0	39	33	84.6%
SAN MIGUEL	58	11.6	35	27	77.1%
TOTAL	499	100.0	300	235	78.3%

The table indicates that the investigation at the Nutritional Center level has a high percentage of sampling units by Diocese; an important factor in obtaining a higher level of representativeness in the final results.

## 5.02.06 Nutritional Center Selection

The selection of the Nutritional Centers was based on the distribution program planned for the month of July for each Diocese. This method of selection was submitted to CONSULTORES EN MERCADEO as a requirement for planning the data collection phase.

The program did not only include the sample of 300 interviews, but also all of the centers which had distributions scheduled from July 11 to August 7, 1988.

For reasons unknown to the team not all of the distribution program planned for that period was completed by the Diocese Centers, thus, necessary changes were made throughout the study.

#### 5.02.07 Data Collection

The data collection was carried out through personal interviews; personnel from CONSULTORES EN MERCADEO visited the respondent to ask the questions on the questionnaire. The selection unit was the Nutritional Center and the respondent, the person in charge of commodity distribution. Generally, during distributions two or more volunteers assist in the weighing, food delivery and beneficiaries monitoring.

#### 5.02.08 Sampling Method

The sampling method utilized was the STRATIFIED PROPORTIONAL SAMPLING (by number of Nutritional Centers by Diocese), to obtain a proportional participation in relation to the density of possible units to be interviewed.

#### 5.02.09 Field Questionnaire

A field questionnaire was prepared in order to obtain the information which is included in the Annexes of this document.

#### 5.03.00 Investigation and Aspects of Nutrition and Health

##### 5.03.01 Introduction

CRS and CARITAS de El Salvador implement a maternal child-health program with food supplements from the PL-480, Title II program of the United States, the main source of food assistance in El Salvador.

During 1988, this program will import approximately 6,900 M.T. of foodstuff such as cornmeal, powdered milk, vegetable oil and rice.

Since one of the main objectives of the M-CH program is to provide nutritional assistance to persons eligible as beneficiaries, an evaluation is necessary to ascertain the progress and accomplishments of the program goals and objectives.

In addition, an evaluation of the nutritional impact among the beneficiaries is included in this effort.

#### 5.03.02 General and Specific Objectives

The general objective of this evaluation is to determine the nutritional impact of the program among the beneficiaries, who are presently receiving PL-480 commodities.

The specific objectives are obtained from different factors which have an influence on the child's nutritional status, which are described as follows:

##### A. Nutritional Level:

- Determine the child's weight in pounds.
- Determine the date of birth and consequently the age in months.
- Determine the degree of correlation among undernutrition, diseases and other variables.

##### B. Feeding Level:

- Breastfeeding habits.
- Feeding habits of supplementary rations.
- Feeding habits of traditional foodstuff.

##### C. Family Level:

- House ownership.
- Housing construction conditions.

- Bathrooms.
- Water supply.

Socio-economic variables: number of persons in the home, relationship, age, sex, educational level, occupation and salary.

- Agricultural products planted and destination of harvest crop.
- Domestic animal raised and means of feeding .

#### D. Health Level:

- Determine the type of illness during the last six months.
- Number of infants in the family group.
- Determine the beneficiaries physical condition.
- Establish the general nutritional status.

#### 5.03.03 Nutritional Impact Concept

The nutritional impact is the nutritional level obtained by the beneficiaries who are the target population.

For evaluation purposes paired sampling, or comparison between two infants, one registered under the program, and the second not registered was used. The comparison between the two groups can demonstrate a difference that will measure the degree of impact of the M-CH program activities.

#### 5.03.04 Universe or Population

The universe or population is composed of Salvadoran children under six years of age, of limited economic resources, who are residents of any geographical area of the national territory.

### 5.03.05 Size of the sample

The size of the sample is 575 interviews conducted, which have been analyzed according to the following statistical assumptions:

-Level of confidence of the sampling process was estimated to be 95%.

-The possibility that 50% of the children are beneficiaries of the M-CH program.

-A sampling error affecting the final results by 4% on both sides of the normal curve.

We believe that the assumptions of the sample provide a high degree of accuracy on final results.

### 5.03.06 Distribution of the Sample

The sample of 575 children under six years old is divided in equal proportions, into sub-samples, one of 288 children actually registered under the program, and the other of 287 children not registered in the program.

To obtain greater representativeness, the samples have been distributed in equal amounts by Diocese in the following way:

## DISTRIBUTION OF THE SAMPLE BY DIOCESE

DIOCESE	CHILDREN REGISTERED UNDER THE PROGRAM	CHILDREN NOT REGISTERED
SANTA ANA	40	40
SONSONATE	40	41
SAN SALVADOR	46	45
SAN VICENTE	40	40
ZACATECOLUCA	40	40
SANTIAGO DE MARIA	41	40
SAN MIGUEL	41	41
TOTAL	288	287

With the purpose of verifying the compatibility of the sample according to age, the distribution of the ages of the sample is demonstrated as follows:

## DISTRIBUTION OF THE SAMPLE ACCORDING TO AGE

MONTHS	CHILDREN REGISTERED UNDER THE PROGRAM	CHILDREN NOT REGISTERED
UNDER 12 MONTHS	48	31
FROM 12 TO 24 MONTHS	45	43
FROM 24 TO 36 MONTHS	51	43
FROM 36 TO 48 MONTHS	58	53
FROM 48 TO 60 MONTHS	45	47
FROM 60 TO 72 MONTHS	41	70
TOTAL	288	287

In addition to the above, comparability of family characteristics of the interviewees not registered under the program were also studied; i.e. of limited resources. Tables accompanying the final results show this comparison.

A distribution of this type was done by Dioceses geographic areas, and another based on age, guarantees that the final results have a high degree of representation and a high degree of accuracy in comparing results.

#### 5.03.07 Type of Interview

The type of interviews carried out for children were medical assessment, based on the child's clinical history and a complete physical examination, which was verified at the Centers.

##### a) Children, of the Program

- Initially the dates on which children were weighed at the Nutritional Centers was requested.
- Once the weighing was begun, a group of pediatricians arrived at the Center and personally obtained the weights of 40 children.
- The children's mothers waited for the children to be examined.
- exactly 40 examinations were performed.
- Children were weighed without clothes or shoes.

##### b) Children not included under the program

- Groups of low income homes were identified in each separate region of the Dioceses.
- Pediatricians introduced themselves to the interviewees observing the socio-economic conditions to be included in the sample questionnaire.

- The selection criteria required that respondents not be registered under any other food program and that children be under six years of age.
- Once the family was selected, the pediatrician proceeded with the medical examination.
- When there were two or more children under six years of age, all were examined at that time.

c) Children's weighing process

- Because clothing (dress and shoes), vary considerably among children, in different seasons and/or regions, children were weighed in their underwear, using this as a nude weight.
- Children still breastfed were weighed in their mothers' arms and then the mother was weighed, and her weight was subtracted from the weight of the mother with the child, to obtain the child's weight.
- Scales of high quality (DETECTO) were selected for the weighing, calibrated regularly, and confirmed with objects of known weight.

d) Family interview

After the medical examination was performed, the interview which included questions related to consumption habits of food distributed by CARITAS, breastfeeding habits, previous day feeding, raising of domestic animals, agriculture cultivation, housing conditions, bathrooms, water supply and socio-economic conditions.

e) Other Activities

It is worth mentioning that during the beneficiaries' medical examination, at least three members and/or volunteers from the Board of Directors were always present.

The pediatricians always explained that the examinations were not performed for the purpose of registering new beneficiaries or to increase the volume or number of rations, and emphasizing that the examinations were not of a curative nature.

Nutritionists supervised the data collection in the nutritional phase.

#### 5.03.08 Type of Sampling

In order to obtain greater results, the STRATIFIED PROPORTIONAL SAMPLING method was utilized, which basically establishes a total sample distributed into equal segments, in our case, the Diocese.

#### 5.03.09 Field Questionnaire

Annexes of Part II, include the field questionnaires utilized for data collection, which were submitted to USAID, CRS and CARITAS for approval before initiating the field work.

#### 5.03.10 Longitudinal Study

##### Objectives

In addition, a longitudinal study was developed for children whose weights were registered at the Centers to compare results with the nutritional status study of children registered in the food program.

##### Methodology

The methodology consisted of a selection of children's files from among the centers whose registry showed consistent weight monitoring.

391 children were selected from seven regional centers.

## Result Analysis

The data analysis was designed to ascertain the degree of nutritional effect in a period of six months on children registered in the food program.

### 5.04.00 Diocese Centers

#### 5.04.01 Background

The Dioceses are important segments in the administration of the M-CH program contributing in the delivery of the commodities from CARITAS to the Centers.

CARITAS at the national level and CARITAS at the Dioceses level have a direct relationship which is agreed upon and set forth in their established administrative rules.

In El Salvador, there are seven Dioceses, distributed by regions and located in the following cities:

- San Salvador
- Santa Ana
- Sonsonate
- San Vicente
- Zacatecoluca
- Santiago de Maria
- San Miguel

The Dioceses are units that control the flow of commodities and funds between CARITAS NACIONAL and the Nutritional Centers. To promote the proper administration of this activity, each Diocese has independently established a regional office consisting of warehouses, administrative offices, conference rooms and especially designated areas to promote community development programs such as training in artesan handicrafts.

Personnel include secretaries, promoters and/or supervisors (who are constantly replaced), warehousemen, volunteers, etc. The Diocese Director is responsible for the administration and guidance of the Dioceses' work.

The Directors direct several activities, such as the M-CH program distribution food assistance under the PL-480 agreement with the United States, for which he must execute the following activities:

- a) Monthly planning of the number of beneficiaries receiving food assistance at each Center.
- b) Authorization and justification of the number of rations to be distributed in each Center.
- c) Organization of food distribution with the Boards of Directors or the committees of the Nutritional Centers.
- d) Designation of the minimum number of personnel who must be assigned for each distribution.
- e) Promotion of educational talks and cooperation with the programs for beneficiaries' mothers.
- f) Strict control of the flow of food and funds for proper program operation.

In order to develop these activities, the Diocese and the Centers have signed a contract, which sets forth the activities and responsibilities for the administration of the program.

Personnel selection and training is the Director's responsibility; and the contracts notifications are sent to the central office.

#### 5.04.02 General and Specific Objectives

The purpose of this evaluation is to determine personnel and equipment resources with which the activities are developed, and to establish the administrative efforts carried out for the proper program administration.

The specific objectives to fulfill the general objective are the following:

- M-CH personnel resources.

- Personnel in charge of the educational sessions.
- Activities developed by educators/promoters.
- Center's capacity to distribute additional food.
- Storage capacity and availability.
- Transport equipment.
- Other programs.

#### 5.04.03 Universe or Population

The universe or population included seven Dioceses offices, which make up the program, only six were visited due to lack of cooperation by the seventh.

#### 5.04.04 Number of Interviews

The data collection is conducted through a census, by interviewing all possible units.

#### 5.04.05 Data Collection

The information has been collected through personal interviews, that is, the interviewer personally visited each Director to ask the necessary questions to fill out the questionnaire.

#### 5.04.06 Field Questionnaire

A field questionnaire was prepared and pre-tested for effectiveness to gather information. This questionnaire is attached in the Annexes of Part II.

## 5.05.00 Economic Impact

### 5.05.01 Background

The M-CH program implemented by CRS/CARITAS imports commodities from the U.S. such as corn, rice, powdered milk and oil, by means on the PL-480, TITLE II regulations, to be distributed on a monthly basis among 130,000 beneficiaries registered at the Nutritional Centers.

When considering the type of products to be imported, it is important to consider that they may affect the national demand for these products causing consequences in the production and in the sales of these same products in the country.

In our analysis, the team compared the data on production, demand and availability of competitive products with the import of commodities during the last five years, as an indicator of the role of imported products of the M-CH program on the national supply.

### 5.05.02 Methodology

After establishing the relationship between production and foreign imports, a table was designed listing all variables which would reduce the total amount supply of the commodities available during the analyzed year.

Next, internal demand was broken down including variables such as domestic animal consumption, industrial consumption, demand for seed purposes, waste, exports and reserves.

With this information one may find the total amount of commodities necessary to satisfy the country's needs.

The internal demand minus the total produced, shows the net total. This comparative data was established for the following products:

- Imported cornmeal with grain corn produced in the country.
- Imported rice with rice produced in the country.
- Imported powdered milk with fresh milk produced in the country.
- Imported oil with oils and fats produced in the country.

#### 5.05.03 Comparative Data

The amounts of imported commodities of the M-CH program implemented by CRS/CARITAS, were compared with the following elements:

- Internal demand.
- Availability.
- Human consumption requirements.

In this way, one may see the effect of these imports on all of these variables and the resultant effect that these imports have on the national markets.

VI. GENERAL INFORMATION

6.01.00 Personnel and Equipment

6.01.01 Executive Personnel

The following personnel contributed to the development of this evaluation:

One project director and three professionals

Two statisticians

Two pediatricians

One nutritional analyst and two technical operators

Two bilingual secretaries

One computer system engineer

6.01.02 Technical Personnel

One Operations Manager

One General Supervisor

Six zone supervisors

Two data reviewers

Two secretaries

Four temporary tabulators

Twenty field interviewers

### 6.01.03 Transportation

The transportation equipment included seven vehicles, one for each Diocese, of which five were used for 30 days and two for 40 days.

Each vehicle was under the responsibility of a Supervisor, who provided transportation to two or three interviewers, depending on the area and number of interviews.

### 6.02.00 Data Collection

The data was collected from the beneficiaries and Centers simultaneously during a commodity distribution day; however, due to circumstances beyond the control of CONSULTORES EN MERCADEO, information gathered during the last few days, was not on a commodity distribution day.

The data collection started on July 11 and ended on August 21, 1988. This phase was to end on August 9, 1988.

The field phase of the investigation on health and nutrition started on July 27 and ended on August 21, 1988.

The information relating to organization, personnel resources and inventories at the Diocese was gathered from August 26 to September 7, 1988.

### 6.03.00 Data Processing

#### 6.03.01 Review and Critique of Questionnaire

After the data collection phase by the interviewers and supervisors was performed, questionnaires were reviewed to eliminate dubious information, and in addition, data gathered was reviewed to eliminate any confusion that could distort final results.

### 6.03.02 Tabulation Plan

The tables for the health and nutrition study are principally designed to demonstrate the correlation between important variables with the degree of malnutrition of the beneficiaries.

### 6.03.03 Design of Tables

The tables exhibited the following information:

- Identification of group investigated
- Registry number, as shown in the questionnaire
- Questions
- Independent variable or segmentation of the activity, i.e. diocese
- Table number
- Totals

### 6.03.04 Computation

The tables were processed manually under the supervision of CONSULTORES EN MERCADEO's executive personnel. This stage started upon receipt of the first questionnaires, and ended four days later, when the last questionnaire was received on August 21, 1988.

## VII. ANALYSIS RESULTS

## 7.01.00 Beneficiaries Level

## 7.01.01 Beneficiaries Characteristics

Beneficiaries Registry

To register beneficiaries that receive food products under the M-CH program at the nutritional centers certain information must be obtained that would determine the eligibility of the applicant, ie: beneficiaries must be under 6 years of age or pregnant and lactating mothers.

According to the beneficiaries, the following information was requested by personnel conducting the registration:

## INFORMATION PROVIDED BY BENEFICIARIES

REQUIREMENTS	CHILDREN UNDER SIX YEARS OF AGE	PREGNANT WOMEN
NAME	95.3	95.9
ADDRESS	71.4	81.1
AGE	91.6	81.8
WEIGHT	68.0	16.2
EDUCATIONAL SESSIONS	13.1	8.1
OTHERS	5.9	4.7
NOT INFORMED	0.1	--

As shown, nutritional status is the main element for the registry process, reported by almost all the beneficiaries. Age is the second element, especially for children under 6 years of age. Another variable is the child's weight; however, 32% of the beneficiaries were not requested to provide this information.

Persons registered and not-registered

PERCENTAGE OF PERSONS RECEIVING FOOD THAT ARE  
 REGISTERED AS RESPONSIBLE FOR BENEFICIARIES  
 (BY DIOCESE)

DIOCESE	REGISTERED AS RESPONSIBLE FOR BENEFICIARY	NOT REGISTERED AS RESPONSIBLE FOR BENEFICIARY
SAN SALVADOR	95.9	4.1
SANTA ANA	59.8	40.2
SONSONATE	86.3	13.7
SAN VICENTE	94.7	5.3
ZACATECOLUCA	99.5	0.5
SAN MIGUEL	98.4	1.6
SANTIAGO DE MARIA	93.4/	6.6
TOTAL	87.0%	13.0%

This information was gathered while individuals were receiving food products. The Table demonstrates that 87% of the people receiving food were registered as responsible for beneficiaries, 13% receiving food were not registered as responsible for a beneficiary, but did present a beneficiary's registration card.

The principal Dioceses which provide food to beneficiaries not registered under the program are Santa Ana and Sonsonate. This is not a serious problem since the food is requested by persons who are not registered but have a control card.

## Number of Beneficiaries registered by other persons

INFORMANTS (OTHER PERSONS)  
BY NUMBER OF CHILDREN REGISTERED  
(BY DIOCESE)

DIOCESE	1 CHILD		2 CHILDREN		3 CHILDREN		MORE THAN 3		TOTAL	
	QTY.	%	QTY.	%	QTY.	%	QTY.	%	QTY	%
SAN SALV.	97	34.5	114	40.4	70	24.8	1	0.3	282	100
SANTA ANA	96	27.7	153	44.1	74	21.3	24	6.9	347	100
SONSONATE	56	30.8	91	50.0	26	14.3	9	4.9	182	100
SAN VICENTE	37	15.2	139	57.3	64	26.3	3	1.2	243	100
ZACATECOLUCA	45	24.5	81	44.0	53	28.8	5	2.7	184	100
SAN MIGUEL	35	18.5	77	40.7	57	30.2	20	10.6	189	100
SANTIAGO DE MARIA	54	27.9	88	45.6	48	22.2	8	4.1	193	100
TOTAL	420	25.9	743	45.7	392	24.1	70	4.3	1,625	100

Data in this table shows that 25.9% of those receiving food have one child registered, 45.7% two children, and 24.1% have three. Only 4.3% stated that they have more than three persons registered.

It may be observed that the tendency of registration of one child by other persons is shown to be more prevalent in San Salvador and Sonsonate, with percentages of 34.5% and 30.8% respectively.

San Vicente and Sonsonate are, however, implementing the policy of limiting the registration by other persons to two children resulting in percentages of 57.3% and 50.0% respectively.

San Miguel and Zacatecoluca have more other persons registering three children with an average of 30.2% and 28.8%.

## Relationships with the Beneficiaries

PERCENTAGE OF INTERVIEWED BY  
RELATIONSHIP WITH THE BENEFICIARIES

RELATIONSHIP	NO. OF INTERVIEWED	PERCENTAGE
MOTHER	1,343	80.2
BROTHER/SISTER	63	3.8
GRANDFATHER/GRANDMOTHER	153	9.1
UNCLE/AUNT	46	2.7
BENEFICIARY	44	2.6
FRIEND	8	.5
OTHERS	17	1.0
NOT INFORMED	--	--
TOTAL	1,674	100.0

80.2% of other persons receiving food at the nutritional centers are mothers of the beneficiaries, which supports the program goals indicating that the food products are being delivered to the target population.

19.8% of the other persons requesting food products are relatives of the beneficiary and only a very small amount are friends.

The following table shows the age distribution of beneficiary children under 4 years of age, is quite uniform with approximately a percentage of four point drop in children between 4 to 5 years of age, and a substantial drop after 5.1 years of age. This tendency is probably explained by the program limitations which requires that after a child reaches a certain nutritional level beneficiaries improve their nutritional status, and he must retire from the program.

Age of Registered ChildrenINFORMANTS REGISTERED IN THE PROGRAM  
BY AGE GROUPS

---

AGE	NO. OF PERSONS	PERCENTAGE
Under one year of age	602	18.0
One to 2 years old	630	18.8
2 to 3 years old	660	19.7
3 to 4 years old	627	18.7
4 to 5 years old	496	14.8
5 to 6 years old	218	6.5
Over 6 years old	118	3.5
TOTAL	3,351	100.0

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## Age of Lactating or Pregnant Women

PERCENTAGE OF WOMEN REGISTERED IN THE PROGRAM  
BY AGE GROUPS

AGE	NO. OF INTERVIEWED	PERCENTAGE
15 TO 20 YEARS	36	24.3
20 TO 25 YEARS	47	31.8
25 TO 30 YEARS	24	16.2
30 TO 35 YEARS	23	15.5
OVER 35 YEARS	18	12.2
TOTAL	148	100.0

Lactating or pregnant women registered in the program are found to be concentrated in the 15 to 20, and the 30 to 25 age group (56.1% of the informants.) A total of 31.7% of these women are in the two age groups encompassing to 35 years. Only 12.2% of women registered in the program are over 35 years of age.

This tendency is considered normal since there is a higher concentration of lactating and/or pregnant women in the general population under 25 year age group.

Program Permenency

INFORMANTS BY THE PERIOD OF TIME  
REGISTERED IN THE PROGRAM

PERIOD	NO. OF INTERVIEWED	PERCENTAGE
UP TO 3 MONTHS	166	10.0
FROM 3 TO 6 MONTHS	155	9.4
FROM 6 TO 9 MONTHS	118	7.1
FROM 9 TO 12 MONTHS	399	24.1
FROM 1 TO 2 YEARS	410	24.8
FROM 2 TO 3 YEARS	192	11.6
FROM 3 TO 4 YEARS	92	5.6
MDRE THAN 4 YEARS	120	7.2
NOT REPORTED	4	9.2
TOTAL	1,656	100.0

According to the previous table, 50.6% of the persons interviewed have been program beneficiaries for one year; 24.8% have participated from 1 to 2 years; and 11.6% for 2 to 3 years.

The smallest group was found to be those depending on program assistance for over three years.

Distance Between the Home and the Centers

INFORMANTS REGISTERED BY DISTANCE  
BETWEEN THEIR HOMES AND THE CENTERS

DISTANCE	NO. OF INTERVIEWED	PERCENTAGE
UP TO 1/2 KM.	498	30.1
FROM 1/2 TO 1 KM	305	18.4
FROM 1 TO 2 KM	270	16.3
FROM 2 TO 3 KM	164	9.9
MORE THAN 3 KM	413	25.0
NOT REPORTED	4	.2
TOTAL	1,654	100.0

It was noted that the persons living within 1/2 Km from the Center, are the majority of the beneficiaries (30.1%). This has special significance for the centers in the cities of San Salvador, Sonsonate, San Vicente and Santiago de María, and particularly for those centers that are located in isolated areas, confirming that they are well located to attend the high risk population.

34.7% of the informants live from 1/2- 2 Kms. away, and 34.9% live more than 2 Kms. away from the Center.

When beneficiaries live a long distance from the Center, it is very difficult for the program personnel to implement activities such as educational sessions, meetings, demonstrations, etc.

## 7.01.02 Food Consumption

Ration Composition

The authorized ration of food distributed by CARITAS Nacional during the course of this evaluation contains the following quantities and products:

CORNFLOUR	4.0 Lbs. per beneficiary
RICE	3.0 Lbs. per beneficiary
POWDERED MILK	2.0 Lbs. per beneficiary
OIL	1.0 Lbs per beneficiary
	64 bottles per beneficiary

The quantities are determined by CARITAS, under the authority of CRS and USAID.

Ration Consumption Period

INFORMANTS BY CONSUMPTION PERIOD  
BY TYPE OF COMMODITY

DURATION	CORN FLOUR	RICE	POWDERED MILK	OIL
UP TO 5 DAYS	18.9	18.2	18.7	30.4
FROM 6 TO 10 DAYS	30.5	42.3	38.1	35.3
FROM 11 TO 15 DAYS	30.8	26.6	26.8	20.9
FROM 16 TO 20 DAYS	5.3	4.1	4.2	5.6
FROM 21 TO 25 DAYS	4.6	3.2	3.7	2.7
FROM 26 TO 30 DAYS	6.5	4.0	5.3	3.6
MORE THAN 30 DAYS	1.0	.6	.9	.5
NOT REPORTED	2.3	.9	2.3	.8
TOTAL	100.0	100.0	100.0	100.0

The table shows that the estimated time of consumption of each products usually less than 15 days. The average time that each commodity lasts is the following:

<u>PRODUCT</u>	<u>DAYS</u>
CORN FLOUR	11.3
RICE	10.2
POWDERED MILK	10.6
OIL	9.2

INFORMANTS REPORTS OF FIRST PRODUCT CONSUMED

FOOD	NO. OF INTERVIEWED		AVERAGE DURATION
		PERCENTAGE	DAYS
CORN FLOUR	166	10.0	11.3
RICE	459	27.7	10.2
POWDERED MILK	401	24.2	10.6
OIL	620	37.4	9.2
NOT INFORMED	12	.7	-.-
TOTAL	1,658	100.0	-.-

The relative quality and the average days of food consumption is accurately reported and indicates an average for all of 9.2 days; 10.2 days for rice, and 10.6 days for milk, and an average of 11.3 days for cornflour.

Justifiable explanations of why a certain product was consumed first are:

BEST LIKED	28.4%
INSUFFICIENT AMOUNT	21.8%
EASIER TO PREPARE	11.5%
RICH IN NUTRIENTS	10.2%
SHARED WITH OTHERS	9.1%

The above explanations reflect the general conditions of the family, and not an attitude about the program.

#### Food Consumers

That the products distributed by CARITAS through the M-CH program are consumed by the whole family members, is confirmed by 79% of all interviewed. This fact was reported by all Dioceses.

Informants in the following Dioceses reported that the food ration is consumed by all the family members: over 90% in San Miguel, Santa Ana, Zacatecoluca and Santiago de Maria; 77% in San Salvador and San Vicente; and 50.5% in Sonsonate.

Importance of the Food

PERCENTAGE OF INTERVIEWED ACCORDING TO PRODUCT IMPORTANCE  
INCLUDED IN THE ACTUAL RATION

COMMODITY	GRADE OF IMPORTANCE			
	FIRST	SECOND	THIRD	FOURTH
CORNFLOUR	6.0	34.6	54.0	9.4
RICE	4.9	51.1	26.7	14.5
POWDERED MILK	13.9	11.9	17.1	44.5
OIL	39.2	2.3	2.2	31.6
ALL PRODUCTS	35.9	-.-	-.-	-.-
TOTAL	100.0	100.0	100.0	100.0

Oil is indeed, the product most preferred followed by rice, cornflour and powdered milk.

In the event of a product change in the ration, the product position would determine the effect. If, for example, oil were substituted by another similar product, the resultant negative impact would affect the image of the program until the beneficiaries become accustomed to the new product.

## 7.01.03 Commodity Distribution.

Frequency of Delivery

The frequency of delivery can be determined based on the beneficiary reports. See Table No. 8.

Food Ration Received

PERCENTAGE OF INTERVIEWED ACCORDING TO RATIONS DELIVERED  
DURING DISTRIBUTION

RATIONS	NO. OF INTERVIEWED	PERCENTAGE
ONE	373	22.5
TWO	768	46.4
THREE	408	24.6
FOUR	104	6.3
MORE THAN FOUR	1	.1
NOT REPORTED	2	.1
TOTAL	1,656	100.0

22.5% of the persons benefited by the program received one ration, which means that they only have one person registered; 46.4% received two rations; and 24.6% received three. Those stating that they received more than three rations were much fewer than those in the other groups.

Therefore, it can be reported that most of the beneficiaries receive more than one ration in each distribution. This was found to be a common practice in all Dioceses.

Distribution Process

The ration is delivered to the beneficiary through the person bearing the beneficiary card issued by the Centers.

Each ration is provided by an estimate of the standard weight of the ration which varies by product. Oil is delivered in one cup volumes, that equals a one-half pound weight.

This system of distribution leads to shortages, surplus and waste and consequently, can not be provided to the beneficiaries nor accounted for accurately. The evaluation team observed this during a distribution in Zacatecoluca.

The standard delivery of oil is problematical due to the lack of uniformity in the measure. An attempt of precision is made with a weight balance using crude standard weights. The oil ration is the equivalent of 0.64 of a bottle (.64 x 750 mls = 480 mls.) or one half pound. The measure utilized is the cup, which is not a sub-multiple of 0.64 of a bottle, corresponding to one ration.

#### Voluntary Contribution

The beneficiaries voluntary cash contributions are determined by each Diocese.

Even when a beneficiary or person requesting food products does not provide the entire contribution during delivery, the ration is always provided.

The voluntary contributions generally found during the evaluation were the following:\*

SAN SALVADOR	C 1.25 and C 1.50 for ea.ration
SANTA ANA	C 1.50 each ration
SONSONATE	C 1.50 each ration
SAN VICENTE	C 1.70 each ration
ZACATECOLUCA	C 1.35 each ration
SAN MIGUEL	C 1.50 each ration
SANTIAGO DE MARÍA	C 1.25 each ration

\*C5.00 = US\$ 1.00

Purpose of the Contribution

There are several versions related to the destination of the contribution, 77.2% of the informants stated that it is to pay transportation costs; 10.4% thought it was for program coverage; and 7.9% stated that they believed it was used to cover the cost of the food. See Table 12.

Changes in the Food Ration

95.3% of the informants interviewed stated that there have never been changes in the ration provided by the program. See Table 13.

Food Products Received during Previous Distributions

It can be concluded that 95% of the informants received the same food products during previous distributions, as they stated that there has never been a change in the ration.

The products are:

CORNFLOUR

RICE

POWDERED MILK

OIL

## 7.01.04 Card Issuance

Delivery of Food Products Based on the card

PERCENTAGE OF INFORMANTS RECEIVING FOOD PRODUCTS  
BASED ON PRESENTATION OF CARD

DIOCESE	PRESENTED	NOT PRESENTED
SAN SALVADOR	79.4	20.6
SANTA ANA	92.4	7.6
SONSONATE	85.2	14.8
SAN VICENTE	98.8	1.2
ZACATECOLUCA	97.8	2.2
SAN MIGUEL	98.9	1.1
SANTIAGO DE MARIA	96.5	3.5
TOTAL	92.1	7.9

7.9% of program beneficiaries received food without showing a registry card, especially in San Salvador, Sonsonate and Santa Ana. The rest of the Dioceses reported that the problem of requesting food without presentation of the card or of beneficiaries waiting to be registered was less frequent.

The following reasons were provided by the interviewed when were asked to show the card:

LEFT AT HOME	16.0%
FIRST TIME REQUESTING FOOD	10.9%
NEVER HAD ONE	15.1%

It is important to note that each time a distribution takes place, non registered community members also request food hoping to be included in the distribution or to be registered for a future donation. This is evidence of the food shortages occurring in the country, due to existent economic factors.

Number of Cards per Person

The card is the method of identification issued upon acceptance into the program. This card may include more than one person.

In reality, it is common for a single person to request several food rations with only one card, sometimes carrying several cards, which belong to neighborhood friends who cannot come to the Center.

74.6% of the beneficiaries reported having only one card, including one or more members; 16.9% have two cards; and 8.2% have more than two. Santa Ana (31.6%) and Sonsonate (29.7%) Dioceses have four Nutritional Centers with four persons reporting having only one card. However, other Dioceses reported to have over 90.0% of beneficiaries requesting food products with only one card.

Months Marked in the Card

INFORMANTS BY NUMBER OF  
MONTHS MARKED IN THE CARD

MONTHS	NO. OF INFORMANTS	P E R C E N T A G E	
		MARKED	UNMARKED
JANUARY	1,206	79.1	20.9
FEBRUARY	1,255	82.3	17.7
MARCH	1,275	83.6	16.4
APRIL	1,306	85.6	14.4
MAY	1,372	90.0	10.0
JUNE	1,400	91.8	8.2
JULY	1,396	91.5	8.5
TOTAL	1,525	--	--

As shown in the previous table, there is a small number of people whose cards do not show the month of distribution, this could be due to their inability to attend a distribution on a particular day because they live far away from the Center, or for personal reasons.

The average of unmarked cards rose to 13.7% during the months January to July, 1988.

Color Frequency

BENEFICIARIES RECEIVING FOOD PRODUCTS  
IN ACCORDANCE TO THE COLOR OF THE CARD

DIocese	GREEN	WHITE	PINK	YELLOW	OTHER
SAN SALVADOR	66.7	--	1.3	1.7	30.3
SANTA ANA	--	--	100.0	--	--
SONSONATE	.6	--	99.3	--	--
SAN VICENTE	4.1	.4	87.2	7.4	.8
ZACATECOLUCA	--	--	39.4	59.4	1.1
SAN MIGUEL	.5	98.4	.5	.5	--
SANTIAGO DE MARIA	1.0	14.9	84.1	--	--
TOTAL	12.9%	113.7	411.8	69.0	32.2

The table shows the use of color of the cards submitted during distribution at the time of this evaluation, which indicates that some Dioceses only utilize one color such as: Santa Ana, Sonsonate, San Vicente, San Miguel, and Santiago de Maria. San Salvador and Zacatecoluca are using two colors.

## 7.01.05 Program Information Dissemination

## PERCENTAGE OF PROGRAM INFORMATION DISSEMINATION

METHOD OF COMMUNICATION	NO. OF INTERVIEWED	PERCENTAGE
FRIEND	922	55.7
PRIEST	175	10.6
COMMITTEE	339	20.5
SELF	106	6.4
OTHER	110	6.6
NOT REPORTED	2	.1
TOTAL	1,654	99.9

55.7% of the interviewed stated that they learned about the program through a friend, 10.6% was attributed to the activities supported by the priest. It is common knowledge that the priests do not cooperate in spreading word about the food assistance.

The committee members of the Centers play an important role, since 20.5% of the interviewed stated that they learned about the program through the committee.

## 7.01.06 Other Relative Programs

Receipt of Commodities Before Registry

PERCENTAGES OF INFORMANTS RECEIVING OR NOT RECEIVING  
FOOD PRODUCTS BEFORE REGISTRY

OPINION	NO. OF PERSONS	PERCENTAGE
NOT RECEIVED	1,541	93.7
RECEIVED	103	6.3
TOTAL	1,644	100.0

The program implemented by CARITAS has little beneficiary duplication, since only 6.3% have reported having received food products under another program at different places.

The places where these 6.3% of persons received food products are identified as follows:

CLINIC OR HEALTH UNIT	1.6
MAYOR'S OFFICE	.1
CONADES	.5
CHURCH	.1
OTHERS OR NOT REPORTED	1.5

The most important reasons given for changing the place of receipt of food products, are the following:

TOO FAR	38.0%
DISTRIBUTION PLACE CHANGED	15.0%
PHASE-OUT	11.5%
SITUATION OF THE COUNTRY	6.2%

These percentages refer to beneficiaries who had received food assistance at another location or from another program.

Other Institutions Providing Food Products

PERCENTAGE OF INFORMANTS PRESENTLY BENEFITTED BY  
OTHER PROGRAMS (BY INSTITUTION)

PROGRAM	NO. OF PERSONS	PERCENTAGE
DIDECO	---	---
CONARA	3	11.5
CONADES	6	23.6
HEALTH	13	40.0
EDUCATION	----	---
CRS	----	---
OTHER	7	24.9
NUMBER OF FAMILIES	29	100.0

Of the 29 families reported having receiving food products from other programs, 11.5% are provided by CONARA, 23.6% by CONADES, 40% by Health, and 24.9% by other programs.

Please note that the 29 families registered represent only 1.65 of the 1,641 interviewed, therefore, this number does not affect the M-DH objectives implemented by each Center.

The registration period these families have under other programs is usually about one year, as reported by 77.7% of the interviewed. See Table No. 32.

In the information provided by this group, 42.9% of the interviewed stated that they receive a family ration, and 57.1% individual rations. See Table No. 33.

## 7.01.07 Nutritional Education

Beneficiaries receiving Educational Component

## PERCENTAGE OF INFORMANTS BENEFITTED BY THE EDUCATIONAL COMPONENT

DIOCESE	BENEFITTED	NOT BENEFITTED
SAN SALVADOR	81.1	18.9
SANTA ANA	73.0	27.0
SONSONATE	91.1	8.9
SAN VICENTE	83.6	16.4
ZACATECOLUCA	66.8	33.2
SAN MIGUEL	98.9	1.1
SANTIAGO DE MARIA	91.5	8.5
AVERAGE	82.5	17.5

The M-CH program is designed to assist persons with limited resources by providing nutritional assistance as well as developing educational programs in health, for the purpose of promoting a positive effect on the target population.

The educational activity of each Center is under the Diocese Director responsibility, which is directly implemented through promoters, supervisors, educators and volunteers of each Center.

The educational component is a principal element of the program because the beneficiaries cultural beliefs require that education in consumption patterns be constantly promoted to fully implement the program objectives and goals. The effect of this educational activity developed by each Diocese is reflected in the following:

The Educational Component Table indicates that 17.5% of the interviewed stated that they have not received educational talks, and 82.5% reported that they had.

The Dioceses which carried out this activity with highest coverage are the following:

SAN MIGUEL

SANTIAGO DE MARIA

SONSONATE

The Diocese of San Vicente needs only a slight increase in its efforts to reach satisfactory coverage.

San Salvador, Santa Ana and Zacatecoluca need to increase their efforts to obtain higher efficiency in their educational activities.

Given the important aspect of the educational component, it will be necessary to launch an intense promotional campaign to improve this part of the program.

Frequency of the Educational Sessions

PERCENTAGE OF INFORMANTS BY FREQUENCY  
OF EDUCATIONAL SESSIONS

DIOCESE	EACH DISTRIBUTION	EVERY TWO MONTHS	EVERY THREE MONTHS	OTHER
SAN SALVADOR	92.8	2.1	3.4	1.7
SANTA ANA	80.4	7.0	4.1	8.5
SONSONATE	63.5	7.8	13.8	15.0
SAN VICENTE	55.3	14.1	7.8	22.3
ZACATECOLUCA	71.5	9.8	15.4	3.2
SAN MIGUEL	96.3	.5	.5	2.7
SANTIAGO DE MARIA	88.0	1.6	1.6	8.7
AVERAGE	79.1	6.0	5.9	9.0

79.1% of the interviewed stated that they received educational talks after each distribution, especially in San Salvador, San Miguel, Santa Ana, and Santiago de Maria. Zacatecoluca, San Vicente and Sonsonate are implementing the educational component with less frequency.

Subject of the Sessions

INFORMANTS REPORTS OF SUBJECTS OF THE SESSIONS  
BY DIOCESE

DIOCESE	USE AND PREPARAT. OF FOODS	IMPORTANCE OF FOODS	NUTRITION	BASIC HEALTH HABITS	OTHERS
SAN SALVADOR	41.1	17.1	14.1	22.9	4.8
SANTA ANA	50.4	25.3	3.1	14.6	6.5
SONSONATE	50.8	13.7	11.7	14.8	9.0
SAN VICENTE	44.1	21.7	45.8	14.4	2.2
ZACATECOLUCA	48.3	15.7	11.6	21.1	3.7
SAN MIGUEL	32.5	25.2	19.2	23.0	.3
SANTIAGO DE MARIA	33.9	26.0	21.0	19.0	--
AVERAGE	42.4%	21.4%	13.8%	18.6%	3.6%

Presentors of Educational Sessions

## INFORMANTS REPORTS OF SPEAKERS

	NO. OF PERSONS	PERCENTAGE
PROMOTERS	783	56.4
COMMUNITY VOLUNTEERS	449	32.3
MINISTRY OF HEALTH	5	.4
OTHERS	151	10.9
NOT REPORTED	1	.1
TOTAL	1,389	100.0

56.4% of the informants reported educational sessions were presented by the Promoters. Assistance to the promoters by the community volunteers was reported by 32.3% of informants.

Educational Component Impact

67.8% of the beneficiaries reported that they have implemented all of the recommendations provided through the educational component. This was observed by the team in all of the Centers, except Santa Ana.

24% of the interviewed stated that they have implemented some of the recommendations with a higher number of these reports coming from Santa Ana. See Table No. 38.

Implementation in the category of FEW or NONE is 7.1% and 1% respectively. See Table No. 38.

#### Nutritional Progress on Children Program

Questions such as "HAVE YOU NOTICED GREAT, LITTLE OR NO IMPROVEMENT IN YOUR CHILD'S NUTRITIONAL STATUS?", usually show a positive answer since program beneficiaries feel benefitted by the program. Most persons (79.9%) stated that they have noticed GREAT IMPROVEMENT, and 19.0% reported VERY LITTLE IMPROVEMENT. See Table 39.

#### 7.01.08 Program Medical Attention

##### Medical Examinations

It was reported that only 4% of the beneficiaries have received medical examinations to monitor the health status of children registered in the program. This was reported by all Dioceses without significant variances in the final results. See Table No. 40.

### Frequency of the Medical Examinations

From the 4% reporting medical examinations (65 persons), 38.5% stated that they have been examined only once, mostly in San Miguel and Santiago de Maria, and 29.2% reported two examinations. The rest reported that they have been examined more than two times.

It is important to note that since the people eligible for interview (65 out of 1,641) were few, the information is not consistent nor significant for the total target population.

### Children's Health Status After Medical Examinations

Because beneficiaries receiving medical attention are few (65 of 1,641), results have limited usefulness. In summary, 82.4% reported that the child's health has improved, and 17.6% reported little improvement.

Frequency of Illnesses

PERCENTAGE OF INFORMANTS BY FREQUENCY  
OF ILLNESSES DURING 1988

FREQUENCY	NO. OF INTERVIEWED	PERCENTAGE
ONCE	234	14.2
TWO TIMES	277	16.9
THREE TIMES	293	17.8
FOUR TIMES	200	12.2
FIVE TIMES	213	13.0
SIX TIMES	221	13.4
MORE THAN SIX TIMES	150	9.1
NO CHILDREN REGISTERED	28	1.7
NOT INFORMED	27	1.6
TOTAL	1,643	100.0

Frequency of illness among program beneficiaries is not considered higher than that for the general population. The exposure to illnesses of small children is considered permanent. The average number of illnesses to which the child was exposed was 3.7 times higher in the period from January to June, 1988.

### Types of Infections

The disease most frequently found among program beneficiaries was respiratory illnesses, which was reported by 40.4% of the interviewed. Respiratory illnesses were usually high in all Dioceses, with minimum reports of 24.3% in San Vicente and 53.9% in Santa Ana.

Diarrhea infections are also influential factors in the health of program children; averaging 26% of the interviewed with ranges from 8.3% in Zacatecoluca to 45.2% in San Vicente.

### 7.01.09 Participation of the Beneficiaries

#### Degree of Participation by the Beneficiaries

The participation of the beneficiaries in any of the development activities carried out by CARITAS is relatively low; 36.9% of the interviewed reported that they do not participate in any activity; 53.5% participate in the educational component, and the rest in programs such as vegetable gardens (1.8%), planting of soy beans (1.4%), demonstrations (3.9%), and other agricultural products, 2.1%. See Table 45.

Activities in which they would like to participateINFORMANTS AREAS OF PREFERENCE FOR FUTURE  
PARTICIPATION

ACTIVITY	NO. OF INTERVIEWED	PERCENTAGE
EDUCATIONAL COMPONENT	551	28.2
VEGETABLE GARDENS	229	11.7
SOY CULTIVATION	151	7.7
DEMONSTRATIONS	282	14.4
BASIC FARMING	139	7.1
OTHERS	142	7.3
NONE	463	23.7
TOTAL	1,957	100.0

76.3% of the beneficiaries have demonstrated their willingness to participate in various program activities. The Table shows the activities most commonly mentioned as the educational component, vegetable gardens, demonstrations, etc.

## 7.01.10 Children's Weight

Weight Control

## INFORMANTS BY FREQUENCY OF WEIGHING

FREQUENCY	PERCENTAGE
MONTHLY	9.0
EVERY TWO MONTHS	5.3
EVERY THREE MONTHS	52.7
LONGER THAN EVERY THREE MONTHS	20.7
NEVER	12.3
TOTAL	100.0

The tables shows that 52.7% of the interviewed reported that children were weighed every three months; 20.7% stated that they are weighed more often than every three months; 12.3% reported they have never been weighed. See Table No. 48.

According to the beneficiaries, the weight monitoring program has irregularities such as:

- a) the majority of the Centers do not weight the children,
- b) those Centers which weigh the children have insufficient information about the child,
- c) the Centers are only using normal curves for children to compare progress instead of monitoring a child's weight progress independently,
- d) some Centers weighed the children without noting the date,
- e) very rarely was a plotting curve used to evaluate the child's nutritional progress

#### Personnel in charge of the weight monitoring

Weighing is usually performed when there are no distributions. The beneficiaries are notified on the day the child will be weighed.

When children come to be weighed, the personnel of the Nutritional Centers record the information on the GOMEZ Tables.

During the weighing sessions, at least two members of the Centers' Board of Directors assist in the coordination and implementation of the weighing process. The records are kept by these members on a voluntary basis.

54.5% of the interviewed stated that the Promoter, a employee of the Diocese, weighs the children, and 34.9% reported that the Community Volunteers (from Board of Directors) perform the work. See Table No. 49.

The relative importance of the weighing process varies from one Diocese to another; for example for Santa Ana, San Vicente and Santiago de Maria, the weighing plays an important role, while in Zacatecoluca, San Salvador, Sonsonate and San Miguel this activity is not considered a priority.

The community volunteers actively participate in program activities. The team noticed greater participation in San Miguel, Zacatecoluca and San Salvador. See Table No. 49.

### CARITAS\_Position

The M-CH program which is managed by CARITAS is preferred by almost all of the registered beneficiaries. 98.6% of the interviewed prefer this program to programs available from CONADES, DIDECO, Ministry of Health, etc. This was found to be true in all Dioceses.

#### 7.01.11 Program Opinions

##### Acceptance\_of\_the\_CARITAS\_Program

The CARITAS M-CH program is highly recommended by almost all interviewed; 90.7% across all Dioceses stated that they LIKE EVERYTHING. (See Table No. 50)

The persons interviewed reported acceptance of the program based on the following activities:

Type of food products

Educational sessions before distribution

Table 50 reflects this preference.

The criteria used for judging the program as good were:

ASSISTANCE TO THE CHILDREN	31.6%
ASSISTANCE TO THE POOR	30.5%
THE FOOD PRODUCTS ARE GOOD	6.9%

The criteria used for judging the program as fair were:

INSUFFICIENT FOOD PRODUCTS	64.4%
FOOD PRODUCTS ARE CONSUMED RAPIDLY	16.7%
THEY ARE BENEFITTED IN SOME WAY	5.6%

In summary, the following reasons may be taken as program acceptance:

AID TO THE POOR	25.8%
THE PROGRAM IS THE ONLY SOURCE	17.0%
BENEFITS EVERYONE	13.1%
BENEFITS THE CHILDREN	9.1%
MONTHLY ASSISTANCE	8.2%

The statements "BENEFITS THE CHILDREN and MONTHLY ASSISTANCE" were the two reasons given during the interviews conducted to find out program benefits. The program beneficiaries demonstrated their awareness of the food products included in the ration and the delivery frequency.

#### Consequences of a Phase-Out

The objective of this activity was to find out the attitude of the beneficiaries in case of a phase-out. To that effect, the following question was made and answers were given:

IN CASE OF A PROGRAM PHASE-OUT, WHAT WOULD YOU DO?

1. WORK MORE TO BUY THE FOOD PRODUCTS PROVIDED BY THE PROGRAM	48.2%
2. SEEK ASSISTANCE FROM OTHER PROGRAMS	15.8%
3. NOT CERTAIN	12.8%
4. ACCEPT THE FACT	9.6%

The largest groups took on an optimistic attitude of working more to buy the food items; however due to the economic conditions of the country, it will be difficult for this group to find a job easily.

The second group will seek other program assistance to enable them to continue their dependency. Because of their lack of incentive, they believe that someone must feed them.

The "NOT CERTAIN" and the "ACCEPT THE FACT" groups, are probably families that will have serious nutritional problems. Once the program ends, they will be obliged to seek additional income in order to satisfy their basic necessities. One alternative would be to emigrate at the first opportunity.

7.01.12 Beneficiaries Socio Economic Conditions

PERSONS PER HOUSEHOLD INFORMANTS REGISTERED  
UNDER THE PROGRAM BY HOUSEHOLD FAMILY MEMBERS

NUMBER OF PERSONS	NUMBER OF FAMILIES	PERCENTAGE
1	4	0.2
2	16	1.0
3	129	7.8
4	283	17.2
5	324	19.7
6	266	16.2
7	202	12.3
8	154	9.4
9	117	7.1
10	68	4.1
11	36	2.2
MORE THAN 11	46	2.8
TOTAL	1,645	100.0

The previous table shows the distribution of the beneficiaries by the number of persons living in the same household. The significant range is between 4 and 11 persons per household. The average number of persons per family living in the same household with the beneficiary is estimated to be 6.1.

Age Distribution

PERCENTAGE OF PERSONS LIVING WITH  
THE BENEFICIARY (BY AGE)

AGE	NO. OF INTERVIEWED	PERCENTAGE
UP TO FIVE YEARS OF AGE	3,202	31.6
FROM 5 TO 10 YEARS OLD	1,608	15.9
FROM 10 TO 15 YEARS OLD	1,082	10.7
FROM 15 TO 20 YEARS OLD	754	7.4
FROM 20 TO 25 YEARS OLD	858	8.5
FROM 25 TO 30 YEARS OLD	762	7.5
FROM 30 TO 35 YEARS OLD	502	4.9
FROM 35 TO 40 YEARS OLD	416	4.1
OVER 40 YEARS OLD	944	9.3
NOT REPORTED	9	.1
TOTAL	10,137	100.00

The Table represents the average age of persons living with the beneficiary.

Center Distribution

PERCENTAGE OF HOUSEHOLDS ACCORDING TO THE  
NUMBER OF PERSONS (BY SEX)

NO. OF PERSONS	MASCULINE		FEMENINE	
	NO. OF PERSONS	%	NO. OF PERSONS	%
1	224	14.2	221	13.4
2	475	30.0	463	28.1
3	384	24.3	418	25.3
4	281	17.8	323	19.6
5	153	9.7	160	9.7
6	64	4.0	64	3.9
MORE THAN 6	--	---	---	--
TOTAL	1,581	100.0	1,649	100.0

The Table shows the distribution by sex of family members living in the household of the beneficiary.

The average number of male per household is 2.9; and 3.1 for females.

Working Members of the Family

Total of homes interviewed	1,641
Working members of the household	1,831
Total number of persons in the household interviewed	10,137
Total persons under 20 years of age	6,646
Total persons over 20 years of age	3,491
Percentage of total family members who work	18.1%
Percentage of family members over 20 years of age who work	52.4%

Daily\_Income

HOUSEHOLD OF WORKING MEMBERS BY  
DAILY INCOME

SALARY IN COLONES	NO. OF INTERVIEWED	PERCENTAGE
UP TO FIVE COLONES	275	14.9
FROM C 5 TO C 6.00	93	5.0
FROM C 6 TO C 7.00	106	5.7
FROM C 7 TO C 8.00	297	16.1
FROM C 8 TO C 9.00	93	5.0
FROM C 9 TO C 10.00	357	19.8
MORE THAN 10.00	275	14.9
NOT REPORTED	343	18.5
TOTAL	1,849	100.0

The table indicates that the most common daily rate is over C9.00 per day; however, a large number of household members receive salaries around C7.00 to C8.00 per day. In addition, a significant number (14.9%) receive less than C5.00 daily. The per capita daily income is C7.43.

Daily Income by Family

## PERCENTAGE OF HOMES ACCORDING TO DAILY FAMILY INCOME

FAMILY INCOME IN COLONES	NO. OF INTERVIEWED	PERCENTAGE
UP TO FIVE COLONES	136	8.7
FROM C5 TO C 6.00	54	3.5
FROM C6 TO C 7.00	77	4.9
FROM C7 TO C 8.00	217	13.9
FROM C8 TO C 9.00	59	3.8
FROM C9 TO C10.00	279	17.9
FROM C10 TO C15.00	150	9.6
FROM C15 TO C20.00	118	7.6
MORE THAN C 20.00	101	6.5
NOT REPORTED	199	12.8
NO WORKING MEMBERS	170	10.9
TOTAL	1,560	100.0

The table shows that the family income levels varies considerably. The average family income is C10.16.

Starting Time and Method of DistributionNUTRITIONAL CENTERS BY  
SCHEDULE OF FOOD DISTRIBUTION

SCHEDULE	OPENING	CLOSING
6:00 TO 7:00	11.1	--
7:00 TO 8:00	29.8	--
8:00 TO 9:00	26.6	--
9:00 TO 10:00	7.7	3.9
10:00 TO 11:00	2.1	8.2
11:00 TO 12:00	1.3	24.6
12:00 TO 13:00	0.8	19.8
14:00 TO 14:00	3.0	6.5
AFTER 14:00	1.7	--
14:00 TO 15:00	--	6.5
15:00 TO 16:00	--	5.6
AFTER 16:00	--	8.6
ALL DAY	15.3	9.0
NO SET TIME	--	6.9
NOT REPORTED	0.4	0.4
TOTAL	100.0	100.0

The Centers do not have a uniform schedule for the distribution of products, however, the most frequent time was found to be from 7:00 to 9:00 A.M. Several Centers had established other schedules and others none at all. The time of delivery changes according to the availability of the Board of Directors due to their work or other schedules.

The closing of the distribution Center is usually between 11:00 AM and 1:00 PM, however, some Centers have not established a set schedule for the same reasons cited before for opening hours. The food distribution takes approximately four or five hours.

#### 7.02.00 Nutritional Centers

##### 7.02.01 Coverage and Range

#### Beneficiaries Registry

#### BENEFICIARIES REGISTERED AND PROJECTED BY EACH NUTRITIONAL CENTER (BY DIOCESE)

DIOCESE	AVERAGE NUMBER OF BENEFICIARIES REGISTERED BY NUTRITIONAL CENTER ACTUAL	PROGRAMMED NUMBER OF BENEFICIARIES
SAN SALVADOR	205	201.3
SANTA ANA	158	163.2
SONSONATE	169	160.8
SAN VICENTE	236	236.7
ZACATECOLUCA	232	232.2
SAN MIGUEL	290	272.3
SANTIAGO DE MARIA	346	336.7
TOTAL	226	225.1

Based on the information provided by the Dioceses, an average of 226 beneficiaries are registered by the Centers. Each Diocese has different policies regarding the number of Centers and the number of beneficiaries which it will support.

The Table also shows the average number of beneficiaries projected for this period by Nutritional Center; there is no significant difference.

Food Quantities for Distribution

The following table shows the average weight of food products withdrawn from the Diocesan store room on a delivery day. The table found that the quantities distributed were consistent with the number of registered beneficiaries, i.e. there were no exceptional differences to account for.

AVERAGE NUMBER OF POUNDS PER PRODUCT DELIVERED  
BY DIOCESE

DIOCESE	CORN FLOUR	RICE	POWDERED MILK	OIL (KG)
SAN SALVADOR	914.7	636.0	454.1	5.0
SANTA ANA	680.4	576.4	385.8	7.3
SONSONATE	656.5	555.2	318.7	5.6
SAN VICENTE	1,384.6	961.3	765.0	9.7
ZACATECOLUCA	957.8	643.4	669.2	9.4
SAN MIGUEL	1,066.7	829.4	574.0	6.2
SANTIAGO DE MARIA	1,383.8	1,063.7	359.7	9.3
TOTAL	981.0 Lbs	730.4 Lbs.	542.4 Lbs	6.8

Frequency of Deliveries During the YearCOMMODITY DELIVERIES ACCORDING TO THE NUMBER OF  
MONTHS DURING THE YEAR (JANUARY-AUGUST 1988)

MONTHS	CENTERS	PERCENTAGE
LESS THAN FIVE MONTHS	12	5.0
SIX MONTHS	26	11.0
SEVEN MONTHS	57	24.4
EIGHT MONTHS	7	3.0
EVERY MONTH	132	56.4
TOTAL	234	100.0

The table shows that 5% of the Nutritional Centers did not receive food products on a monthly basis. In a seven-month period only five deliveries were made due to factors beyond the Centers control. The Centers that received food products for seven or eight months were those interviewed in July and August. It is estimated that 95% of the Centers received food products on a monthly basis.

Disposal of Food SurplusDISPOSAL OF FOOD SURPLUS AFTER DISTRIBUTION  
(NUTRITIONAL CENTERS)

CONCEPT	AMOUNT	PERCENTAGE
KEPT FOR THE NEXT DISTRIBUTION	39	16.7
SOLD	5	2.1
DISTRIBUTED TO NON REGISTERED PERSONS	25	10.7
DISTRIBUTED AMONG BENEFICIARIES	12	5.1
OTHERS	26	11.2
NO SURPLUS	126	54.1
TOTAL	233	100.00

45.9% of the Centers reported always having a surplus after each distribution. This may be due to inconsistent number of beneficiaries, innaccurate estimates, or beneficiaries not requesting their food products.

16.7% reported that they keep leftovers for the next distribution, a positive attitude but demanding of supervision; 10.7% informed that they distribute it among non registered and/or beneficiaries, a decision that can be taken by a Center; 2.1% sell the leftovers, which is a negative attitude since is not in accordance with the program provisions; and 11.2% is attributed to "Others". In summary, surpluses occur very infrequently, as confirmed by 58.9% of the Centers; and 25.2% indicated that "almost never" did surpluses occur.

Estimated pounds of Surplus

AVERAGE POUNDS OF SURPLUS ON DISTRIBUTION DAY  
BY DIOCESE.

DIOCESE	CORNFLOUR	RICE	POWDERED MILK	OIL
SAN SALVADOR	33.9	59.0	96.0	18.5
SANTA ANA	31.7	25.0	12.2	15.0
SONSONATE	32.0	15.0	5.0	11.8
SAN VICENTE	48.5	21.4	29.8	15.4
ZACATECOLUCA	41.5	40.7	40.4	7.3
SAN MIGUEL	12.5	12.5	15.0	20.8
SANTIAGO DE MARIA	28.6	43.7	17.5	22.0
AVERAGE	38.1	28.5	30.4	14.6

## 7.02.02 Administrative Capability

Increase in BeneficiariesCAPABILITY FOR INCREASE IN BENEFICIARIES  
PER NUTRITIONAL CENTERS (BY DIOCESE)

DIOCESE	INCREASE	NO. OF APPLICATIONS RECEIVED
SAN SALVADOR	91.3	62.1
SANTA ANA	63.5	47.3
SONSONATE	63.5	36.1
SAN VICENTE	49.7	27.3
ZACATECOLUCA	60.8	38.7
SAN MIGUEL	89.2	33.6
SANTIAGO DE MARIA	119.1	67.7
AVERAGE	77.6	48.4

SOURCE: Table No. 2.09

The Nutritional Centers reported to have additional capacity for an average of approximately 78 persons, ranging from 50 to 120 beneficiaries, indicating that additional potential beneficiaries exist in the immediate areas of the Center.

The Centers also stated that they have an average of 49 persons pre-registered among all the Centers, ranging from 28 to 68 persons.

Possibility of Opening New Centers

49.4% of the Centers expressed that there was a possibility of opening new centers in the same communities. The evaluators found this to be true in San Salvador, Sonsonate, Zacatecoluca, Santa Ana and San Vicente and less so in San Miguel and Santiago de María. See Table No. 2.12.

The Centers' desire to open additional centers shows that more nutritional assistance is necessary among the poor rural populations as a result of the low domestic production levels, economic barriers, and the socio-political conditions prevalent in rural areas.

AVERAGE OF ADDITIONAL BENEFICIARIES WHO WOULD  
BENEFIT FROM NEW CENTERS

DIOCESE	NUMBER OF BENEFICIARIES
SAN SALVADOR	186.1
SANTA ANA	109.8
SONSONATE	159.4
SAN VICENTE	121.4
ZACATECOLUCA	177.8
SAN MIGUEL	75.0
SANTIAGO DE MARIA	316.7
AVERAGE	152.8

Source: Table No. 2.13

Of all Centers visited, 49.4% expressed the possibility of installing additional Centers to benefit an average of approximately 153 additional persons, ranging from 75 to 317 beneficiaries. This permits one to infer that the Nutritional Centers are located in high nutritional risk areas of the country.

Food Products Distributed to Non-Beneficiaries

AVERAGE OF NUTRITIONAL CENTERS DISTRIBUTING FOOD TO  
NON-REGISTERED BENEFICIARIES FROM THE  
FL-480, TITLE II COMMODITIES (BY DIOCESE)

DIOCESE	DELIVERED TO NON-REGISTERED	NOT DELIVERED TO NON-REGISTERED
SAN SALVADOR	30.8	64.1
SANTA ANA	9.4	90.6
SONSONATE	37.5	62.5
SAN VICENTE	13.3	86.7
ZACATECOLUCA	7.7	92.3
SAN MIGUEL	7.7	92.3
SANTIAGO DE MARIA	34.4	65.6
AVERAGE	19.6	79.6

The Nutritional Centers providing food products from the FL-480 program to non-registered persons under the program, average 19.6 in all Dioceses. This number varies considerably among Dioceses.

The centers providing food products to non-registered persons are greater in the San Salvador, Sonsonate and the Santiago de Maria Diocese. The rest of the Dioceses report a relatively lower number of these Centers.

48.9% of the Centers stated that food distribution to non-registered persons occurs infrequently, and 28.9% stated that it is not done at all. See Table No. 2.16.

The average number of non-registered persons receiving food products amounts to 10.4. See Table No. 2.16.

Volunteer Personnel

The many groups of volunteers who assist during food distribution are described as follows:

- Three members from the Board of Directors (in charge of distribution coordination).
- Four food distributors.
- Two persons receiving and supervising voluntary contributions.
- Two persons who supervise the delivery of food products to the Centers.
- At least, two persons in charge of clean-up after the distribution.

The number of volunteers cooperating during food products distribution in a typical case are 13 or more. The willingness and spontaneity demonstrated by the volunteers during the distribution process indicates the availability of human resources in the event another centers were opened, or if beneficiaries were increased.

Professional Personnel

62.4% of the Nutritional Centers stated that they lack professional personnel, such as: doctors (pediatricians), nutritionists, nurses, etc., which was deemed necessary by all the Nutritional Centers.

Only 12.5% of the Centers were visited by doctors, especially in the San Salvador, Santa Ana, Sonsonate, and San Miguel Dioceses. 7.2% reported being visited by nurses, and 7.9% by social workers. See Table No. 2.19.

### 7.02.03 Organization Authority

#### Persons in Charge During Distribution

Distributions are supervised by a volunteer directly linked to the Board of Directors of each Center, who organizes and appoints the persons who will assist during food distributions.

The volunteers who assist have ample experience in this activity and are familiar with most of the beneficiaries.

#### Role of the Board of Directors

38.2% of the interviewed reported that the authority and decision is with the President of the Board of Directors of each Center; 19.1% stated also that the Diocese Director is the recognized authority.

Table No. 2.20 shows in detail the authoritative roles recognized at each Center.

The supervision of a distribution is under the responsibility of a person designated by the Board of Directors through the President or Diocesan Director; according to the information provided by the Nutritional Centers, the designated persons have ample experience and are personally notified months in advance when they must be responsible. In summary, the supervision of the distribution is relegated by the Board of Directors to well-known community members with experience in the activity and leadership among the beneficiaries.

When a supervisor, for any reason, is unable to assist during food distribution, he immediately notifies the President or other Director to effect a change.

#### Communication with Beneficiaries

The following methods are utilized to advise food products distribution:

- During distribution, which basically consists of advising the next date of distribution. The Centers have a pre-determined date to carry out this activity, as was reported by 40.9% of the interviewed. See Table No. 2.23.
- Through educational sessions, an effective method of communication among beneficiaries' mothers.
- Other means which contributed to promote the food product distribution are: masses given by the Priest of the community, radio, and beneficiaries themselves.

The planned date of distribution is programmed every month by each Nutritional Center, sometimes it is changed for reasons beyond their control. However, a permanent dissemination campaign is carried out to keep the beneficiaries informed of all program related matters.

42.9% of the interviewed reported that most Centers advise from 15 to 30 days prior to distribution; and 26.2% reported one to eight days notice.

#### 7.02.04 Volunteers Training Component

##### Training

87.2% of the Nutritional Centers reported training their personnel as part of the program objectives and goals, so did the Dioceses. See Table No.2.25.

##### Latest Training

63.9% of the Centers reported that their personnel had received training during the last month; 15.8% reported it was during previous months. It is concluded that program personnel are trained frequently.

## 7.02.05 Equipment

Scales

PERCENTAGE OF NUTRITIONAL CENTERS WITH SCALES  
BY DIOCESE

DIOCESE	WITH SCALES	WITHOUT SCALES
SAN SALVADOR	85.0	15.0
SANTA ANA	39.6	60.4
SONSONATE	75.0	25.0
SAN VICENTE	23.3	76.7
ZACATECOLUCA	67.9	32.1
SAN MIGUEL	38.5	61.5
SANTIAGO DE MARIA	75.8	24.2
TOTAL	57.3	42.7

57.3% of the Centers have scales for weighing infants. Of those, 75% are located in San Salvador, Santiago de Maria, and Sonsonate Dioceses; 67.9% in Zacatecoluca; 39.6% in Santa Ana; 23.3% in San Vicente; and 36.5% in San Miguel.

The brand of scales most commonly found was Detecto and Newport, however, 21.2% of the brands were not identified.

Table No. 2.29 shows the percentages of other brands encountered, most were bath scales (69.8%) or coffee scales (13.9%); or hanging scales (12.4%).

The condition of the scales can be considered "GOOD", in 78.4% of the Centers; 13.4% were reported "FAIR"; and 8.2% reported in "BAD" condition. See Table No. 2.30.

It is important to note that bath scales are of limited use, as constant use can affect the mechanical system; therefore, a constant resetting is necessary during use.

#### Children's Weight

85% of the total number of Nutritional Centers reported that children are being weighed periodically, except in Santa Ana, where weighing is done less frequently. See Table No. 2.33.

65.3% of the Nutritional Centers stated that infants are weighed every three months, especially in Santiago de Maria, San Miguel, and San Salvador (over 75%); Sonsonate and Zacatecoluca (60-70%); and 35% in Santa Ana and San Vicente. See Table No. 2.34. However, the team found that there is no one assigned to perform this task, but in most cases, a member of the Board of Directors of the Center is responsible. See Table No. 2.35.

#### Nutritional Monitoring

The interviewed persons at the Nutritional Centers stated that there are three ways to monitor the child's nutritional status:

BY THE WEIGHT CURVE	52.1%
BY WEIGHT	27.8%
VISUALLY	14.8%

For each child that is weighed, a sheet that includes the beneficiary's data and a sheet with the Gomez curve is kept specifying the registration date in which the child was weighted.

In many cases, the information is inaccurate and therefore, inconsistent probably due to the low educational level of the volunteers and their early stages of training. Some Centers presented weight records with corrections, high weights related to age, etc.

In addition, the Gomez curve used at the Nutritional Centers is designed for boys only, but it's used for both sexes, which is erroneous as weight/age differ.

#### 7.02.06 Opinions related to the food ration

According to 60% of the Centers' Directors, the food rations provided to the program beneficiaries are adequate. In Santa Ana, only 37.7% of the interviewed agreed. See Table No. 2.37 for reports from each Diocese.

The following opinions were given about the food ration:

INCREASE THE RATION	65.2%
DISTRIBUTE THE RATION EVERY 15 DAYS	26.3%
INSTRUCT THE BENEFICIARIES ON FOOD PREPARATION	4.2%
OTHERS	4.2%

The idea of increasing the amount of food products was highly manifested among the beneficiaries either by increasing the food ration or the distribution frequency.

#### 7.02.07 Commodities Storage

##### Warehouse Location

85.8% of all the Nutritional Centers have warehouses to store the program commodities. In San Salvador, San Vicente, San Miguel, and Santiago de Maria over 90% of the Centers have separate warehouses for this use.

The remaining Dioceses average 70-80% with warehouses; it can be seen that it is necessary to have a storeroom as commodities are transferred to the Centers days before the distribution.

88.7% of the Nutritional Centers stated that their warehouses are located inside the center, and 11.3% have places elsewhere. See Table No. 2.41.

#### Warehouse Area

77.6% of the Nutritional Centers reported that the warehouse area is no larger than 10 M , 22.4% reported a larger area. See Table No. 2.42.

#### Construction of the Walls

The warehouse walls are made of the following material:

BAHAREQUE (sticks and adobe)	16.7%
CEMENT	45.2%
ADOBE	15.7%
BRICK	13.3%
WOOD AND ALUMINUM SHEETS	9.0%

According to the interviewers, 18.9% of the warehouses have excellent walls, 59.7% are good, and 21.4% are in fair or bad conditions. See Table No. 2.43.

#### Warehouse Ventilation System

75.5% of the warehouses have appropriate air circulation for food products preservation. However, 24.5% have no air circulation. See Table No. 2.45.

In summary, the evaluation team found relatively inadequate air circulation for food preservation, since 35.9% of the warehouses have fair or bad systems, and 48.3% were good, and 15.9% was rated as excellent. See Table No. 2.46.

Type\_of\_Floor\_

The type of floor of the warehouses is the following:

CEMENT BRICK	59.6%
CEMENT	16.7%
DIRT AND MUD	23.7%

Only 59.6% of the warehouses have cement bricks recommendable for the preservation of food products for long periods of time. Dirt, or mud floors are not conducive to storage of food products for long periods of time. See Table No. 2.47.

Nutritional\_Centers\_Inventory\_System\_

PERCENTAGE OF FOOD PRODUCTS IN INVENTORY  
BY DIOCESE

DIOCESE	CORNFLOUR	RICE	POWDERED MILK	OIL ( kegs)
SAN SALVADOR	27.5	25.0	27.5	23.7
SANTA ANA	26.4	26.4	26.4	28.3
SONSONATE	33.3	37.5	25.0	33.3
SAN VICENTE	53.3	53.3	53.3	50.0
ZACATECOLUCA	42.9	42.9	46.4	46.4
SAN MIGUEL	7.4	3.7	7.4	7.7
SANTIAGO DE MARIA	12.1	9.1	9.1	9.1
AVERAGE	28.5	27.7	27.7	28.0

The table shows that 28.5% of the Nutritional Centers have in inventory cornflour; 27.7% have rice; 27.7% have powdered milk; and 28% have oil.

It is evident that the Nutritional Centers carry an inventory of the food products, due to a surplus or to food products not picked up. This situation is a problem since the warehouses have inadequate air circulation to preserve food products beyond the required time.

Average Pounds in Inventory

AVERAGE POUNDS OF EACH PRODUCT IN INVENTORY  
AT THE NUTRITIONAL CENTERS (BY DIOCESE)

DIOCESE	CORNFLOUR	RICE	POWDERED MILK	OIL
SAN SALVADOR	368.1	317.5	240.9	2.0
SANTA ANA	196.4	182.1	125.0	1.9
SONSONATE	356.2	458.3	483.3	2.9
SAN VICENTE	456.2	389.1	265.6	3.7
ZACATECOLUCA	391.7	593.8	384.6	6.5
SAN MIGUEL	556.0	691.7	608.3	7.5
SANTIAGO DE MARIA	625.0	1,100.0	675.0	10.0
AVERAGE LBS.	448.1	450.8	310.4	4.0

The team calculated the average pounds for each product on by Center and Diocese at the time of the evaluation.

Distribution QuantitiesAVERAGE QUANTITIES OF COMMODITY DELIVERED BY THE  
NUTRITIONAL CENTERS (BY DIOCESE)

DIOCESE	CORN FLOUR	RICE	POWDERED MILK	OIL
SAN SALVADOR	642.2	726.4	584.5	5.0
SANTA ANA	680.4	576.4	297.2	7.3
SONSONATE	656.5	555.2	318.7	5.6
SAN VICENTE	1,384.6	1,224.1	778.4	9.7
ZACATECOLUCA	957.8	941.4	680.7	9.4
SAN MIGUEL	1,066.7	903.0	578.0	6.2
SANTIAGO DE MARIA	1,383.8	1,063.7	359.7	9.3
AVERAGE	981.0	829.6	547.8	6.8

The table shows the average of food products delivered to the Nutritional Centers for distribution during the evaluation, however, the distribution differs from one Center to another.

75% of the interviewed reported that the food products are stored for approximately 39 days; 16.2% reported two months; and the rest for longer periods of time.

This is especially true when there is a surplus from the distributions and it is not returned to the Diocese because of high transportation costs and/or handling expenses due to long distances.

## 7.02.08 Distribution Quantities

Withdrawal of Food Products from the Dioceses Warehouses

According to the reports of the Centers, 59.8% of the interviewed request commodities from the Dioceses warehouse to be delivered during one distribution, and 20.9% stated for two distributions.

Those Centers requesting food products for two distributions are those located in inaccessible areas, or those for whom it is economically better because of the smaller volumes of commodities.

Care should be taken when the Centers request food products for two distributions, since the warehouses are not in good condition, or a double ration should be distributed to be consumed in two months.

Number of Beneficiaries per Distribution

AVERAGE NUMBER OF RATIONS DISTRIBUTED TO THE BENEFICIARIES  
DURING ONE DISTRIBUTION

DIOCESE	AVERAGE OF RATIONS BY DIOCESE
SAN SALVADOR	267.8
SANTA ANA	193.5
SONSONATE	168.6
SAN VICENTE	255.6
ZACATECOLUCA	233.8
SAN MIGUEL	311.8
SANTIAGO DE MARIA	369.3
AVERAGE	257.9

The table represents the average number of rations delivered from the Diocese warehouses, which were estimated based on a program pre-established by the Diocese Directors.

Food Products Included in the Ration

The beneficiaries are aware of the food products and quantities included in each ration, they are as follows:

CORN FLOUR	4 Lbs.
RICE	3 Lbs.
POWDERED MILK	2 Lbs.
OIL	1/2 bottle, 1 Lb.

Some Nutritional Centers measure the oil by bottles, and others in pounds.

Food Products Packaging

The commodities are imported into the country in "bulk", which is different from the ration delivered to the beneficiaries in established quantities. All the Nutritional Centers receive the food products ready for distribution.

7.02.09 Food Consumption

Consumption Time of the Ration

There is a common idea among the directors of the Nutritional Centers that one ration should last 30 days, which was mentioned by 94. of the interviewed. As a rule, the complementary ration should be consumed in 30 days; however, 93.8% of the Nutritional Centers estimate that the ration is not sufficient for that length of time. See Table 3.07.

The most important reasons to given to justify why the ration is sufficient for 30 days are:

IS PROVIDED ONLY TO THE CHILDREN	63.6%
ENOUGH FOR 30 DAYS	36.4%

Both reasons are in accordance with consumption requirements established by the program.

There are also reasons justifying why the ration is not sufficient:

Ration is too small	85.9%
The children are the only ones who eat it	9.2%

Considering the economic condition of the families, the number of persons per family and the high rate of unemployment, the complementary ration is not enough for 30 days, since it is consumed by the whole family.

#### Estimate of the Duration of the Ration

The most frequently reported is that the ration has a duration of nine to fifteen days, as reported by 49% of the interviewed. Another group stated that it lasts for a maximum of eight days, which was reported by 33.5% of the Nutritional Centers supervisors.

Likewise, 13.4% considers that the ration lasts between sixteen and twenty two days; very few affirm that the ration lasts the 30 days, as specified in the provisions of the program. See Table No. 3.09.

#### Destination of the Ration

The directors state that the ration of foods delivered is consumed by the whole family, as reported by 90.8% of the persons interviewed. Also, another segment of 8.7% of informants was added, stating that part of the ration is eaten and the other one sold. Rarely it is reported that the ration is all sold. See Table No. 3.10.

Demand for the Product

Two of the four products included in the present ration are considered very important: rice and powdered milk. Probably supply factors during the time of the evaluation created a strong demand for these products.

Rice has become a product of higher consumption due to the increase in the price of beans, originated by scarcity, which rose to levels very uncommon in the history of the country.

Fresh milk prices had also increased on the local market during the data collection for the study.

Cornmeal became the product of least importance among the Nutritional Centers, probably because it is not a traditional product in the Salvadoran diet.

## 7.02.10 Relationship with the Beneficiaries

Requirements for Registration

PERCENTAGE OF NUTRITIONAL CENTERS ACCORDING TO REQUIREMENTS FOR  
REGISTRATION OF BENEFICIARY

REQUIREMENTS	PERCENTAGES
UP TO 6 YEARS OF AGE	96.9
DEGREE OF UNDERNUTRITION	61.9
WEIGHT	68.0
ECONOMIC SITUATION	53.6
ADDRESS	12.9
OTHERS	10.3

The table shows that the most important criteria for acceptance in the program is that the children be under six years of age as reported by 96.9% of the Nutritional Centers. Another 61.9% of Nutritional Centers state that they register based on the degree of undernutrition, and 68% mentioned that the weight of the child is important as it is the basis quickly to determine the grade of undernutrition.

It is also reported that 53.6% of the Centers give importance to the economic conditions of the beneficiaries.

PERCENTAGE OF NUTRITIONAL CENTERS ACCORDING TO REQUIREMENTS FOR  
REGISTRATION OF LACTATING OR PREGNANT MOTHERS

REQUIREMENTS	PERCENTAGE
LACTATING MOTHER OR PREGNANT WOMEN	93.8
ECONOMIC CONDITION (LOW INCOME)	35.6
UNDERNUTRITION	24.7
AGE	18.0
WEIGHT	17.5

The above chart indicates that the most important criteria for registration of a woman is that she breastfeed or that she be pregnant, which was confirmed by 93.8% of the Nutritional Centers. Also, 35.6% of the centers report that the economic condition has some influence, as it is a basic element for program registry. Other elements mentioned were undernutrition, age and weight.

### Residence\_of\_the\_Beneficiaries

The Nutritional Centers take into consideration the distance where the beneficiaries live, since 61.5% of the informants believe that the solicitor must reside close to the Nutritional Center. Another 22.6% state that they can live far away, and 15.9% are indifferent to the location, which means that it is not a determinant factor for the registration. See Table No. 4.02.

The maximum distance at which a beneficiary may reside is approximately 4 Kms., as reported by 24.1% of the Nutritional Centers; the other opinions refer to shorter distances.

### Identification\_of\_the\_Beneficiaries

The identification of the beneficiaries is made through a card which is issued by the Nutritional Center when registering. This is reported by approximately all the Nutritional Centers.

Other Nutritional Centers report that at the same time they issue the cards, they also keep listings of registered beneficiaries in the file, which are sometimes utilized in the identification of beneficiaries.

Usually, the card is issued in the name of the mother of the child or mother benefitted, since these are the persons who request the food products during the distributions. This is reported by approximately all the informants.

## 7.02.11 Food Logistics

### Arrival of the Food Products

71.1% of the Nutritional Centers stated that the food products are received ten or less days before the distribution, most commonly between two and five days before the distribution takes place. 17.9% informs that they receive them ten days before the distribution. These reports were uniform across all Nutritional Centers.

### Transportation Problems

The activity of transporting the food products from the Diocese warehouse to the Nutritional Centers causes problems for 29.9% of the Nutritional Centers with a similar incidence in all the Dioceses.

The main problem for the Nutritional Centers is that it is very difficult for them to find transportation for the products, probably because they are in locations outside the urban area where this service is not easily found and, if found, the transportation costs are high.

Most of these problems are created by the owners of transportation vehicles because they set the conditions for the service.

### Frequency of Problems

Transportation problems can not be said to be permanent since there is no comparison information to state whether they occur every month. 30.8% of the Centers stating that they have problems said that the last problem they had was one month ago, 12.3% reported that it was one to two months ago, and another group of 13.8% had difficulties two or three months ago.

### Distribution of Foods

The Nutritional Centers always have sufficient time to transport the food products to be distributed during the next distribution, since these are programmed a month before. It means that they have a programmed date, which is known by the Diocese director or the supervisor.

In the event the distribution is cancelled due to a reason beyond the control of the Nutritional Center, the Dioceses advise the Nutritional Centers immediately.

It is reported that 88.5% of the Nutritional Centers have established dates for the distributions. The other 11.5% that have no date are from Centers which are located in inaccessible places, especially during winter when communication takes longer.

7.02.12 Registry and Monitoring of Food and Families

### Control of Leftover Food Products

In the handling of the food products, especially when they are weighed or measured for delivery to the beneficiaries, a difference occurs between the amount received and the amount distributed, which is called handling loss or waste. All of the Centers have procedures used to immediately notify the Diocese about these differences, particularly if the volumes are large, necessitating storage until the next distribution.

The centers keep these records continuously and when a surplus develops, they file a report called "Report Closed". This was found to be true in 28.8% of the Nutritional Centers.

About 25% of the Centers said they filed a special report to the CARITAS DIOCESE. Generally, these situations were resolved at lower levels such as the CARITAS Diocese, promoters, directors, Board of Directors, etc. See Table No. 5.03

The centers which keep registries, state that when they detect differences due to food handling, they issue a report called a "Report Sheet". This is reported by 28.8% of the Centers. Another group of 25.4% of centers state that they send a report to CARITAS Diocese. See table No. 5.08.

#### Registry for Incoming Food Products

All Nutritional Centers keep registries for the incoming food products. This is an administrative activity carried out by all the different Dioceses.

When there are differences between the volumes of foods delivered to the Diocese warehouse and those received at the Nutritional Center, this is immediately reported to CARITAS Diocese, directors of the center and/or supervisors. This is reported by 47.7% of the informants. See Table No. 5.09.

It is important to mention that 43.6% of the Nutritional Centers have never had differences between what is received in the warehouses of CARITAS Diocese and what enters the Nutritional Center.

#### Children and Mothers Registry

96.1% of the Nutritional Centers visited reported that they keep registries for children under six years old and pregnant or lactating mothers. Very few mentioned not having these registries.

The records of these beneficiaries are kept in the files of the Nutritional Centers, as reported by 61.4% of the informants across the Dioceses. Another group of 19.5% of centers, reported that they sent the registries to CARITAS Diocese. Very few interviewed persons reported that they are taken to the president and/or Board of Directors.

### Registry of Weight Control

Weight control is one of the most important activities of the program, because the future evaluations of the nutritional impact of the program depend on this information.

86.2% of the interviewed Nutritional Centers reported that they keep weight registries. This is done in most of the Nutritional Centers of all Dioceses, with the exception of Santa Ana where the incidence is reduced to 58.5%, having no impact on the achievement of the program.

The weight registries for children are kept in the files of the centers. This is reported by 61.3% of the informants. Another 17% inform that they are in CARITAS Diocese and a very small group reported that they are kept by the Board of Directors.

### Funds Control

The funds handled by the Nutritional Centers of the M-CH are generated from voluntary contributions of the beneficiaries, given during each distribution when they receive the food rations.

91% of the Nutritional Centers stated that they control this income. 5.1% stated that they do not keep records, and 3.8% of the centers do not collect contributions from the beneficiaries. See Table No. 5.16.

After the distribution, the funds are handed to the Treasurer of the Board of Directors of the Center, which is reported by 44.3% of the informants. 37.8% are received by CARITAS representatives, and there are rare cases when the money is given to members of the Board of Directors. See Table No. 5.17.

After collecting the beneficiaries contributions, a report is made specifying the total amount collected, the person receiving it, and also the justification of any expense originated by the activity.

The reports are sent to CARITAS Diocese, to the Treasurer and to members of the Board of Directors and sometimes to other institutions related with the program.

#### Voluntary Contribution from Lactating and/or Pregnant Mothers

76.1% of the Nutritional Centers stated that lactating and/or pregnant mothers give voluntary contributions, and 23.9% of the informants reported that sometimes they do not. The Dioceses which receive less help from these beneficiaries are: Santa Ana and Sonsonate. See Table No. 6.01.

The voluntary contribution from the benefitted mothers is a fixed quota, determined by the Diocese Centers.

#### Destination of the Voluntary Contributions

There exists two main activities in which the voluntary contributions are spent. They are:

- a) 35.7% of the Nutritional Centers affirm that they are used to cover transportation costs, and
- b) 26.2% state that they help with the operating expenses of CARITAS. See Table No. 6.04.

## 7.02.13 Beneficiaries Participation

Participation in Educational Sessions

85.5% of the Nutritional Centers report that the mothers attend educational sessions. This fact has more relevance in Sonsonate, San Vicente, San Miguel, and Santiago de Maria, with levels above 90% of informants. See Table No. 6.05.

In the Dioceses of San Salvador, Santa Ana and Zacatecoluca, participation reaches above 60% of the persons interviewed.

Frequency of the Educational Sessions

In 76.9% of the Nutritional Centers, sessions are scheduled every 30 days. The rest do it with a few days difference. See Table No. 6.07.

Some Centers determine special days to hold the educational sessions, which is reported by 47.2% of the Nutritional Centers. Another 32.2% inform that these are held during the distributions, and also there are some meetings which take place periodically. See Table No. 6.06.

The subjects discussed in the sessions are oriented toward the following:

PREPARATION OF FOODS	22.2%
HOW TO PREVENT UNDERNUTRITION	17.8%
HYGIENE	18.2%
HEALTH	14.8%
FOOD CONSERVATION	10.3%
BASIC SANITATION	7.2%

As can be observed, these subjects refer to elements of interest for the development of the program. See table No. 6.08.

According to information provided by the Nutritional Centers, the latest sessions were held during the following periods of time: 74% of the centers held them during the last month counting from the day of the evaluation, and 26% held them more than one month ago. See table No. 6.10.

#### Participation of the Mothers in Nutritional Demonstrations

The participation of the mothers during the demonstrations is reported by two thirds of the Nutritional Centers, which means that 76.5% of the centers encourage mothers to cooperate in the demonstrations once in a while. This activity is successful in significant proportions in all the Nutritional Centers. See table No. 6.09.

#### Jobs of the Mothers

29.5% of the Nutritional Centers request that the mothers participate in program activities. This happens with more relevance in Zacatecoluca and Sonsonate where it reaches 50% of the Nutritional Centers, but is reduced in the other Dioceses. See table No. 6.11.

The requested assistance is performed monthly, which is reported by 55.1% of the centers, and 30.4% of the centers receive it occasionally. See Table No. 6.12. by Diocese level.

The following are some of the jobs that are more frequently requested of the mothers:

- ASSIST DURING DISTRIBUTION
- FOOD PACKAGING
- CLEANING AFTER DISTRIBUTION

## 7.02.14 Health Services

### Coverage of Services for the Mothers

It can be said that health care services are not a significant part of this food assistance program since 76.9% of the Nutritional Centers report that they have not received these services. This is particularly true in the Dioceses of Zacatecoluca, San Miguel, San Vicente and San Salvador.

The health services that were provided are centered in the following areas:

- PRENATAL CARE
- PRE AND POST CHILDBIRTH CARE
- MEDICAL VISITS AND TREATMENT
- UNDERNUTRITION

These types of services are vital to the program. While they are not a programmed activity, they could be included in future programming.

Provision of this service is sporadic according to 32.5% of the Nutritional Centers; 27.5% of the centers stated that they get health services monthly, and another 20% weekly. See Table No. 7.02.

### Responsability for Provision of the Health Care Services to the Mothers

The health services provided to the beneficiaries are not a direct part of this program, but are usually a part of another charity program. Very few centers have directly received this contribution from CARITAS.

The Units that have assisted the beneficiaries are:

- HEALTH UNITS
- THE MINISTRY OF HEALTH
- HEALTH PROMOTERS

Other persons who are part of the administration of the center are:

BOARD OF DIRECTORS  
CARITAS  
THE DOCTOR

Table No. 7.03 shows this difference.

#### Frequency of Services Provided to the Mothers

The few lactating mothers or pregnant women who did receive health services have received them monthly, as reported by 21.6% of the Nutritional Centers. Another group of 27% stated that they are received on a sporadic basis, and the rest received them less than one month ago.

#### Coverage of Health Services to the Children

Table No. 7.06 shows that 51.2% of the Nutritional Centers do not offer health care services for the children; the remaining 48.8% of the centers offer these services in some way.

The following Dioceses which have offered these services are:

- ZACATECOLUCA
- SAN MIGUEL
- SAN VICENTE

The most common services which they have offered are the following:

- CHILD CARE
- FIRST AID
- PREVENTIVE CARE
- NUTRITIONAL SUPPLEMENTS
- VACCINATIONS

These services are provided to the children at various frequencies, but in general they do receive them. Possibly, they are not covered under the programs managed by CARITAS.

Persons/Institutions Responsible for Child Health Care Services

The following persons/institutions are responsible for providing health services to the children:

- DOCTOR	30.7%
- HEALTH UNIT	9.1%
- MINISTRY OF HEALTH	5.7%
- BOARD OF DIRECTORS	35.2%
- CARITAS	4.5%

As was noted earlier, CARITAS participation in health care services is negligible. Reference is made to sporadic activities or programs of other institutions.

### Reasons for Children's Medical Visits

The most important reasons for the children visiting the doctor, according to the informants, were the following illnesses:

- UNDERNUTRITION	20.7%
- DIARRHEA	23.6%
- FEVER	13.7%
- PARASITES	10.4%
- RESPIRATORY ILLNESSES	9.4%
- SKIN INFECTIONS	5.7%
- CHILD CARE	11.8%

These illnesses are found in children in all of the Nutritional Centers investigated.

### 7.02.15 Nutritional Centers Supervision

#### CRS Role

An average of 90.3% of the Nutritional Centers reported that they were never visited or supervised by C.R.S.; this number ranged from 86.1% of centers in San Salvador to 96.3% in Zacatecoluca. See Table No. 8.01.

Visits by the CRS representatives were reported ranging between one or two months ago; however, the most frequently reported was six months ago.

The centers visited by CRS believed that the supervisor had arrived. They were at times confused with personnel from USAID. See Table No. 8.03.

### CARITAS Role

CARITAS Diocesan performs a dynamic and permanent activity of visiting the Nutritional Centers, since 86.2% of the centers reported that they are visited by persons from CARITAS Diocese.

The Dioceses of Sonsonate, San Vicente, and San Miguel are visited most frequently, reporting percentages above 90% to a minimum of 75.8% of the informants. See table No. 8.01.

Supervisors and/or promoters who are directly under the Director of the Diocese are the personnel who visit the Nutritional Centers most frequently, as reported by 63.5% of informants. Other persons who occasionally visit the centers are the Diocese Directors. They are usually referred to as General Managers.

### Diocese Representatives

Diocese personnel, such as promoters and/or supervisors, Diocese Directors, secretaries, etc. are considered Diocese representatives.

21.5% of the Nutritional Centers state that Diocese representatives are usually present during the food distributions. This occurs far less frequently in San Miguel, probably due to the inaccessibility of the Nutritional Centers.

Visits by these representatives are planned well ahead of time.

The activities carried out by representatives of the Diocese are mainly:

- SUPERVISION	40.0%
- EDUCATIONAL SESSIONS	16.4%
- DISTRIBUTION SUPERVISION	7.3%
- GUIDANCE AND COORDINATION	5.4%
- FOODS UTILIZATION	3.6%

As can be observed from these activities, they are all supportive of responsibilities of the supervisors.

7.03.00 Analysis of Health Factors which influence Children's Undernutrition. From the Medical Point of View.

7.03.01 Introduction

Undernutrition during infancy is an old and persistent health problem, composed of multiple factors, which range from solely health aspects to economic, social and political matters which are a part of their environment. In El Salvador, a developing country, the infectious diseases, especially diarrhea, are one of the main public health problems.

Good nutrition contributes to the prevention of acute and chronic diseases, the development of the physical and mental potential, and provides reserves for stress situations.

This section is an analysis of the health factors which contribute to the undernutrition of the children in the CARITAS program who received complementary foods as compared to factors influencing children not included in the program, for the purpose of drawing conclusions and formulating recommendations which might assist in solving this problem.

### 7.03.02 General Nutritional Status of Both Groups

#### Nutritional Status of Children In and Out of the Program

The nutritional status of the Salvadoran infant population is precarious, which explains the varying degrees of undernutrition in both groups.

Of the children covered under the CARITAS program, 1.1% exhibited undernutrition (Grade III), 20.8% (Grade II), and 44.4% (Grade I). Only 33.7% had an acceptable weight/age ratio, as per the Gomez classification. This indicates that within this group, 66.3% suffer some degree of undernutrition and it is most prevalent in the 2-4 year age group.

In comparison with the group of children not included in the program, 1.4% are undernourished Grade III, 17.4% Grade II, and 45.6% Grade I. 64.4% of this group suffers some grade of undernutrition and only 35.6% have the proper weight/age ratio, and the prevalence by age is in the group of 4-6 years.

In tables A-B, and C, this problem is presented in detail.

In regard to the prevalence of undernutrition by ages, the analysis is sub-divided in the following groups:

0 - 2 YEARS

2 - 4 YEARS

4 - 6 YEARS

The incidence of serious undernutrition among the program children may be attributed to the pre-requisite of undernutrition for potential beneficiaries. On the contrary, the children not included in the program were chosen at random. Therefore, varying degree of undernutrition were found.

7.03.03 Children's Health Status During the Last Six Months  
before the Evaluation

Diarrhea (Table M)

It is important to consider child diarrhea from the following points of view: general public health, environment, and socio-economic conditions.

It was found that 39.3% of program children, and 50.5% of non-program children, suffered at least one episode of diarrhea during the six months before the evaluation, reflecting an inadequate environment, lack of potable water, inadequate sanitation, crowded living conditions, undernutrition, deficient personal hygiene, families with many small children, lack of medical and social services, weaning, etc.

The lower incidence of diarrhea of program children is due to the emphasis placed on educating the family through periodic talks, concentrating mostly on preparation and use of foods and prevention of illnesses.

The infants and children are protected while they are breastfed, or supplemented with other food but when weaned, they are more vulnerable due to the ingestion of contaminated food, and the loss of immunity from antibodies from the mother's milk.

Furthermore, the families do not give nutritious foods to the newly weaned infants because limited economic resources do not allow sufficient food for the entire family. The baby is the last one to receive his food ration and therefore, has higher risks of developing diarrheal infections.

Episodes of diarrhea aggravate undernutrition. In addition, mothers treat diarrhea but reduce the amount of food for the child, eliminating milk and solid thus increasing the protein-caloric deficiency. In cases of fever, the metabolic demands increase, appetites decrease and repeated episodes result in greater undernutrition.

### Infectious/Contagious Diseases

Immunizations appropriate for the age groups were complete in 81/9% of program children, and 80.1% of the non-program children. Both groups surpassed the 80% mark, showing the impact of the massive vaccination campaigns implemented during recent years by the Ministry of Health.

This becomes evident in the low infectious/contagious disease rates: 7.6% in program children and 8.4% in the non-program children. It was noted that the immuno-preventive diseases such as: tetanus, diphtheria, whooping cough, measles, polio, etc. were practically non-existent. Those diseases of this type which did occur were those not covered by the Ministry of Health, such as parotitis and chicken pox. (see tables F - E).

### Acute Respiratory Infections

Respiratory infection are of significance because they are one of the most common illness in children. Most of them are associated with difficulty in breathing, fever, and sometimes, vomiting, which diminishes the appetite. When this occurs repeatedly, the child's nutritional status, his growth and development are affected.

An ill child expends a lot of energy, his immunological system breaks down, and his food absorption is reduced; all of these make a child more inclined toward undernourishment and can lead to death.

It was found that acute respiratory infections are the most prevalent diseases in and out of the program, with an incidence of 75.4% and 79.1%, respectively. Crowded conditions in which these children live, usually only one room per family and an average of 6.1 persons per dwelling contribute to the spread of these infections. (See tables G - H - D)

#### Intestinal Parasitism

Intestinal parasitism is another factor which contributes to morbidity or mortality among small children. It affects the child's growth and competes for absorption of specific nutrients, forcing the child to expend unnecessary energies destroying or eliminating them.

The low levels of intestinal parasitism found in both groups, 13.2% in the program and 12.5% out of the program, are attributed to the fact that a good percentage of the children presented no symptoms. Very few parents stated having had even a single stool analysis done for their children.

It is believed that these low levels do not reflect the true incidence of intestinal parasitism in our infant population when analyzed in the context of: inadequate hygiene and sanitation conditions, and dirt floors for 78.8% of the program families, and 68.6% non-program families. Access to potable water by both family group is not easy because they have to get it from wells, rivers, etc., as reported by 60.8% of program beneficiaries, and 56.8% of non-beneficiaries.

The study was carried out in rural areas where there are no sewage systems, even though the majority of the informants stated that they had bathrooms, 64.3% program beneficiaries, and 74.9% non-beneficiaries. This does not mean that they use the bathrooms, many of which are latrines located close to the dwelling. (See tables J-K-L-O).

### Urinary Infections

Urinary infections are one of the most frequent causes for retarding the child's growth and development.

The team found low incidence of this disease during the course of study, especially among program children, as well as out of the program, with .7% and 2.1% respectively. These encouraging results were obtained through statements from the mothers, clinical files plus urine analyses indicating an infection, as interpreted by the doctor.

One must consider that the diagnosis of urinary infections in apparently healthy children, shows that 1.4% of all children have active infections of the urinary tract, generally asymptomatic. (See table I). (Nelson Pediatrics, 12th Edition).

#### 7.03.04 Child's Health Status at the Time of the Evaluation

It was found that 34.4% of program children were ill at the time of the evaluation, compared with 40.4% of children out of the program.

The prevalence of respiratory diseases was 55.6% of program children, and 47.8% of the children out of the program. The following table shows the incidence of this activity in detail. (Table P).

Intestinal parasitism was found to be the second most common cause of illness.

Other diseases such as conjunctivitis, abscesses, skin problems burns, cutaneous mycosis, etc., were included under "Others".

7.04.00 Nutrition

7.04.01 Background

Nutritional programs emerge as part of a battle against hunger, contributing to the following objectives: improve the nutritional status of high-risk population groups, assist in the socio-economic development of poor population in underdeveloped countries, prevent severe undernutrition, and reduce mortality rates.

Supplementary feeding programs generally have objectives of a nutritional nature, accompanied others that are about nutrition such as maternal-child health care and health education.

The complementary food programs for high-risk groups generally include nutritional assistance, as well as ample coverage of maternal-child care and education regarding health aspects.

Not all programs of this nature include specific nutritional objectives. For instance, an analysis of the agreements for food assistance to El Salvador carried out by the Executive Office of the Secretariate of the National Commission for Food and Nutrition 3/ in 1982, showed that the objectives of CARITAS M-CH were the following:

1. Provide nutritional education to the target communities.
2. Distribute complementary food products to beneficiaries preferably to pregnant, lactating women and children under 5 years of age.
3. Promote community development through complementary projects in the Nutritional Centers.

The nutritional impact of these programs is very difficult to prove, since they are generally carried out in open populations in which an ample gamma of administrative, family and environmental variables interfere. However, they provide other benefits such as: increase of the maternal-child coverage, increase income levels, especially to poor families, improvement of attendance at educational activities and promotion activities for community organizations. 2/

- 2/ Menchi M.T. Reflections on programs of nutritional help. Materials for seminary on foods and nutrition. SECONAN/MI PLAN 1982.
- 3/ Cardoza de Marquez A.D. Analysis of the Programs of Nutritional Help in accordance to the respective agreements. SECONAN/MI PLAN 1982.

The nutritional feeding programs generally have operational problems due to the lack of resources of the beneficiary countries. A review in 1978 of programs implemented by OCOFAN/MIFLAN, that the programs were plagued by the following problems?

1. The nutritional objective was not achieved due to: lack of resources, poor training of personnel or poor design of the programs that omitted aspects that were essential to its development.
2. Weak mechanism for intra and inter institutional coordination.
3. Lack of criteria uniform in regards to: ration sizes, selection of beneficiaries, and procedures for execution of the programs.
4. Lack of follow up and evaluation mechanisms for the programs and projects.

5. Many of the products did not fit the consumption habits of the Salvadorans.
6. The educational component was implemented in a limited and inefficient way.
7. Educational materials used for tracking activities were too few and were not well prepared technically.

In 1984, the Executive Secretariate of the National Commission for Food and Nutrition again analyzed all the programs of nutritional assistance carried out by the Government of El Salvador. 4/

By this date, some of the problems had disappeared; however, most of them persisted. Additional ones encountered were:

1. The communication systems within the programs had serious deficiencies, mainly in relation to record keeping, and flow of information between the different levels.
2. Lack of separate budget for the operation of these programs.
3. Inappropriate mechanisms for supervision.
4. Not all programs included the educational components.
5. There was no real community participation in the development of the programs.

4/ Cardoza de Marquez A.D. and Lopez Grande C.M. Studies of Operation of Programs of Nutritional Help Carried Out by the Government of El Salvador. SECONAN/MIPLAN. 1984.

6. Existence of serious logistical problems.
7. There was no policy to guide the rational use of the nutritional assistance, which resulted in the appearance of programs with diverse objectives that did not fit into the general goal of socio-economic development of the country.

All of this demonstrates that for many years, the administration of food programs for high-risk groups has been a complex problem that requires the implementation of technical and administrative measures for its solution. To implement the correct measures, a complete understanding of existent problems and their causes is necessary.

#### 7.04.02 Characteristics Found in the Family

##### Family\_Group

The information gathered for families in the program and for non-program families showed that most families averaged six members, ranging from four to six members for program families and from five to six for those not in the program.

Of these, approximately 47% of the group members were children under 10 years old, and 30%, children under five years old, that is, a high percentage of the family group were young children. The average number of children under fifteen years was above 50% for the two groups studied. See Table No. 1, this characteristic was common in both groups.

In addition, more than 50% of the members were found to be males, 53% of program beneficiary families, and 52% of non-program families. See Table No. 2.

The data found regarding the age groups is consistent with demographics of developing countries; the populations are generally young and economically dependant.

A characteristic that is inconsistent with this data, was the percent of males that made up the family group, generally females make up a greater part of these families. A possible explanation could be that because the most common occupation among women of these groups is as a domestic servant, they may not have been living as part of the family group at the time of the interview and therefore, were not reported.

### Educational Level

Only 37.6% of the beneficiaries stated that they could read and write. This proportion was similar (37.2%), among non-beneficiaries.

The educational level among both groups was low. Among the beneficiaries, the most frequently reported educational level, (16.6%) was third grade, while in the group of non beneficiaries the largest group (16.3%) had attained the second grade level. Around 14% in both groups had completed the sixth grade, and close to 5% had reached the ninth grade.

Although the numbers were low, 3.5% of the benefitted population and 5.1% of the non benefitted population had gone to high school. In the group of non beneficiaries, 0.5% had gone to universities.

### Occupation

Another characteristic analyzed in the study was occupation. The persons interviewed were asked about the occupations of those members in the family older than fifteen years. Only 34.3% of this age group among the beneficiaries and 43.2% of non beneficiaries were working at the time of the study, (Table No. 4); signifying that approximately half of the economically active population had no income. Considering that over 50% of the members of a family were under less than fifteen years of age.

The most frequent occupation reported was that of farmer or agricultural laborer. According to Table No. 5, about 50% of the working population in both family groups worked in that occupation. The second most frequently reported occupation, predominantly for women, was as domestic servant.

### Income Level

Another factor analyzed was the net family income, (Table No. 6). Of the 112 benefitted families studied, 37.5% had a daily income under fifteen colones a month or 450 colones a month. The same Table demonstrates that the major part (27%) of the families had daily incomes below ten colones. For non-beneficiaries, the situation is similar; 49.6% of the families had salaries below 450 colones a month, and 27% earned less than three hundred colones a month. This means confirms that among both, beneficiaries and non-beneficiaries the families were characterized by low incomes.

When relating these income levels to the cost of the basic food basket, which was C 13.16 in 1986 <sup>5</sup>/<sub>7</sub>, for a family of 5.6 members which based on its increase rate exhibited from 1983 to 1986 can now to be around C15.00, one may be certain that all of the families earning below these income levels lack the resources to satisfy their minimum nutritional needs.

Furthermore, adding the families that reported that no one in their family worked, the number of families without resources to purchase the basic food basket, would increase to 32% among the beneficiaries, and to 53% among the non beneficiaries since 5% and 26%, respectively, reported to be in this situation.

### Food Production

The families that produced some type of food that could be consumed, sold or both, by the household were interviewed.

Data revealed that very few of these families produced food, and of the few who did, most consumed the major part. Table No. 7 shows the product most frequently cultivated, the number of families that utilize them for self consumption, sale or both.

In regard to the production of foods, 56.6% of the beneficiaries and 42.8% of the non beneficiaries stated that they had at one time planted foods like corn, beans, tomato, cabbage and others. The product most frequently mentioned by both groups was corn, with beans in second place. Among the beneficiary groups of the program, the growing of zucchini, tomato, sorghum and rice was also mentioned.

#### Housing Conditions

Of the beneficiaries, 50% lived in their own houses, 35% rented, and 15% lived in houses belonging to other persons but paid no rent. In the group of non beneficiaries, 59% lived in their own houses, 29.9% rented, and 12% in houses belonging to other persons. Table No. 8.

In both groups the most frequent type of housing construction was adobe, then brick, and in third place those made of "bahareque". Tin sheets and wood were also mentioned, but with less frequency.

In regard to roofing material, tiles were used most frequently for both groups, then tin sheets, and in third place was corrugated asbestos.

The houses were generally reported to have dirt floors; by approximately 69% of the families of both groups. Bricks were reported second and cement floors were the least frequently mentioned.

In regard to the number of rooms, 74% of the beneficiaries and 71% of the non beneficiaries lived in houses with only one room. 17% of the beneficiaries and 18% of the non beneficiaries lived in houses with two rooms, and 7% of the beneficiaries and 10% of the non beneficiaries lived in houses with three or more rooms.

The majority, ranging from 64% to 74% stated that they had latrines and the most of them reported having them outside of the house. Of the beneficiaries, 87.5%, and 92.1% of the non beneficiaries reported this placement. They were not asked, however, if they used them. It is not rare to find families who have latrines, but do not use them. Particularly in the rural areas, even though latrines are constructed for them, families will continue doing their toilet necessities out in the open.

With regard to access to potable water, 23% of both groups reported having water piped to their own houses, the remaining 77% must carry water from wells, neighboring pipes, rivers, tanks and others; Table No. 9 shows the different sources of water supply for the population. It can be observed that among the other sources of supply, the well is most common, followed in order by neighboring pipes, other sources are rivers and pumps.

Table No. 10 shows the most common characteristics of housing conditions of both groups. As seen, the characteristics of the houses of both groups are very similar. In summary, half of them live in their own houses and the most common characteristics of these houses are: construction made of adobe, tiled roof, dirt floors, with only one room.

Most of them have latrines located outside the house and most of them get water from sources outside their houses because they do not have access to water lines.

Among other sources for supply of water, the well predominated. Counting the families that have potable water through their own pipes or neighboring pipes, it can be concluded that 44% and 48% of the families of both groups have potable water. Table No. 10.

Use of food in the Program

When asked who in the family consume the foods that the CARITAS program provides, 70.8% of the interviewed families answered that all the members of the family did. The number of beneficiaries per family were reported as two by 50%, and between one and two by 75.%

Since the most common number of family members is six, the food rations meant for two persons is being used to feed six or more members of the family in the majority of cases. Another important fact is the duration of the food. The families stated that the ration lasts for one or two weeks, this reinforces the opinion that the food products are not being consumed exclusively by the most vulnerable members of the family.

Considering that the interviewed families do not receive food products from other programs, that none or few of them produce food for their own use, and that half of the people older than fifteen years of age does not work, as confirmed by income levels, it is to be expected that the family group would be unable to purchase its necessary food requirements.

Furthermore, it is to be expected that the program beneficiaries, in reality are consuming much less of the food ration provided since it is consumed at the family group level.

Analyzing the answers given by the families about the food consumed by children under six years old, it was found that most of their food is of vegetable origin, mainly corn in form of "tortillas" and some beans. The most commonly consumed products of animal origin are: eggs, milk and cheese.

With regard to other foods that were consumed by the majority, it was found that the beneficiaries also had eggs and cheese, and the non beneficiaries had vegetables, cheese and cream. The consumption of products of animal origin was found to be minimal, among the beneficiaries, the consumption of eggs and cheese was common, reported by 16.7% of the families, also, 13.2% of the families reported having consumed meat or fish, and 8.7% reported eating chicken.

According to the data, about lunchtime consumption habits, there were no substantial differences between the families benefited and the non benefitted, with the exception of a higher consumption of milk by the beneficiaries than by non-beneficiary children.

At dinner time, Table No. 13, the most common foods eaten by the beneficiaries were beans, rice and tortillas. Among the families out of the program the predominant foods were beans, tortillas and coffee. It was noted that there is a higher number of children among the beneficiaries who ate rice, but a smaller number who drank coffee and a higher number of children who drank milk. The consumption of tortillas was higher among the beneficiaries.

With regard to the other major products consumed by the beneficiaries, the team found milk, eggs, and cheese, and among the non beneficiaries rice, eggs and cheese.

The previous data concerning principal foods consumed demonstrates that the deficiencies are basically present during breakfast and dinner, and that they have been generally determined by the consumption of milk, rice and tortillas. As of all these products are part of the ration assigned by the program, one may concluded that the ration is having a positive influence on the beneficiaries consumption habits.

The quality of the diet of the beneficiaries is improved by the inclusion of these products of higher nutritional values, such as milk, tortillas and rice, which are substituted by coffee at breakfast and dinner.

#### 7.04.03 Nutritional Problems Encountered

##### A. Prevalence of Undernutrition among Beneficiaries and Non-Beneficiaries

The analysis was made classifying children by the standards of the National Center of Health Statistics (NCHS) and by the Gomez classification, the method used to monitor the nutritional status of the children at the CARITAS Centers.

##### Gomez Classification

Table No. 14, shows the resulting data according to the Gomez classification.

Results show that 33.7% of the benefited children exhibited adequate weight for their age, 4.4% classified as undernourished, Grade I; 20.8% were undernourished Grade II, and 1.1% were classified as Grade III.

The infant population with high risk of illness or death, those in Grades II and III, comprised 21.9% of the total children. The distribution of the non-beneficiary children did not differ significantly; in each of the three categories, normal undernourished, (Grade I), and undernourished, (Grade III), they vary by less than 2%. In the case of undernourished, (Grade II), the difference was 3.4%.

The data for the children with Grades II and III of malnutrition, shows that there is no significant difference between beneficiaries (21.9%) and non-beneficiaries (18.8%) or between sexes as measured by the Gomez classification.

#### NCHS Standards

In Table No. 15 the distribution of both groups as measured by the NCHS standards is shown. According to this classification, the children which fall above + 1 DS are overweight children, those classified between + 1 Standard Deviation (SD) and - 1 SD are normal children, those classified between - 1 SD and -2 SD are children at borderline risk malnutrition and those below - 2 SD are classified as undernourished.

Taking this into account, the results show that in the benefitted population, 3.8% were overweight children. 43.7% were normal children, 30.9% were children at risk, and 21.6% were undernourished children.

In the population of non-beneficiaries, a similar distribution was found; however, there was a slightly higher proportion of normal children and a lower proportion of undernourished children among them.

According to the above, it can be said that the children not benefitted by the program were found to be in a slightly better nutritional status. This situation was to be expected since the benefitted children enter the program with some degree of malnutrition or a borderline undernourishment.

#### B. Prevalence of Malnutrition by Sex

Table No. 16 describes the nutritional status of girls versus boys. With this information, we can attempt to identify the sex more affected by malnutrition.

In the group of beneficiaries, it can be observed that malnutrition among girls and boys is very similar; however, there was a slightly higher number of boys with normal weight than there were for girls, the number of undernourished children was the same for both sexes and the number of overweight and at risk boys were lower.

A similar situation was found in the non-beneficiaries, the girls presented a higher number of overweights, a lower number of normal weights and a higher number of those at risk; this made the incidence of undernourished reach a higher proportion among boys. They had a proportion of 19.8% of undernourished versus 18.6% for girls.

These differences did not have significant meaning, therefore, we can say that sex did not have a determining role in the prevalence of malnutrition.

### Prevalence of Malnutrition among Age Groups

When analyzing nutritional status by age groups, Table No. 17, it could be observed that the proportion of undernourished children in the population under two years was 20.4%; in the groups of two to four years, it was 26.6% and in that of over four years of age, 16.3%. Therefore, the age groups that exhibited the higher prevalence of malnutrition was those ranging from two to four years and the group less affected was that of children between four and six years of age.

In order to study the prevalence of malnutrition in children less than one year of age, the groups were divided into two groups; less than one, and from one to two years of age. Table No. 8 shows the results for these groups.

As can be observed, the number of undernourished children ( $-2$  SD and  $-3$  SD), among those under one year of age was 14.6% for those between one and two years it was 26.7%, very similar to that observed for children two and four years which was 26.7%, and 16.3% in children over four years.

It is not surprising that the age group less affected is that of those less than one year, since that is the period when the child is still breastfed. Upon weaning the child is affected during a transition period when he is no longer protected by the mother's milk, nor is he being properly fed through substitute solid foods.

This situation is generally caused during this period. This information is very important and should be taken into consideration when decisions are made regarding the registration of a child into the program. If he is accepted before one year of age, early weaning could be inadvertently promoted and consequently result in a nutritional deficiency at an earlier age.

However, this fact should be considered when designing the educational programs for the mothers, including nutritional practices during the period of weaning. The same Table, demonstrates the decrease of normal children among those from one to two years of age and the large increase of at risk and undernourished children.

C. Changes in the Nutritional Status of Beneficiaries of the Program

Boys

With the idea of analyzing the changes that had occurred during a period of six months, the nutritional status of a group of boys was examined in January and in June, 1988. The classification by ages was by their age at the time of the study, the results are found in Table No. 19.

Of the 195 children analyzed, 67 (34.3%) were in a status of severe or moderate grade of malnutrition in January 1988; in July, the number of children with severe or moderate malnutrition had decreased to 47 (24.1%); in six months, the prevalence of malnutrition Grade II and III among boys had diminished 10%. Analyzing malnutrition Grades II and III separately, that is, moderate and severe; it was observed that both diminished from January to June, but the most noticeable decrease was observed in the number of undernourished, Grade II, which improved to undernourished, Grade II (borderline undernourished), the number of normal children did not show a significant change.

All of this shows that there was an improvement in the nutritional status of the children, especially in the groups most severely affected. The analysis of children by age groups, allows us to see that the group under two years of age decreased, Grades II and III, from 37.9% to 32.6%, in children between two and four years old, the incidence diminished from 36.5% to 19.8%, and in those four of four years of age and older, the incidence changed from 27.2% to 23.3% according to this information. The boys age group which showed the greatest improvement was the group from two to four years of age and the one which showed the least was the group four years and older.

#### Girls

In the case of the girls, it was observed that in the 196

girls analyzed in January of that year, 25.5% were found to be of a normal weight for their age; 40.3% exhibited malnutrition, Grade I; 29.6% presented malnutrition, Grade II, and 4.6% malnutrition, Grade III. In June, 28% were of normal weight; 40.3% were undernourished, Grade I; 24.5% were undernourished, Grade II, and 7.2% suffered from malnutrition, Grade III.

Data indicates that there was a decrease in the prevalence of malnutrition, Grade II, malnutrition Grade III increased; Grade I remained the same, and the number of normal children increased by 3%. This behavior happened that some children with malnutrition, Grade II changed to malnutrition, Grade III or I, and some with malnutrition, Grade I, became normal children. In general terms, there was a decrease in the incidence of girls with malnutrition; Grades II and III decreased from 34.2% to 31.7% among boys than among girls, malnutrition among boys decreased 10% and only 2.5% among girls.

The analysis of improvement by age groups, showed the groups that were more severely affected were those girls under two years of age and those between two and four years of age. In the group of girls under two years, there was a decrease in undernourished, Grade II, even though there was a slight increase of undernourished, Grade III, and an increase in the number of undernourished, Grade I and normal girls.

The behavior was the same for the girls between two and four years of age, there was an increase in the proportion of girls with malnutrition, Grade III, but there was a decrease in those with malnutrition, Grades I and II, and an increase in the number of normal girls. Grouping severe and moderate malnutrition, it can be observed that the incidence decreased in the groups under two years of age and the groups between two and four years of age, but not among the girls between four and six years of age.

#### 7.04.04 Relationship between Malnutrition and Health Conditions

##### A) Health Status of the Children

Since some of the principal causes of malnutrition are the frequency of infectious and parasitic diseases and the prevalence of diarrhea, the relationship between malnutrition and these factors was studied for the beneficiary and the non beneficiary children.

##### Infections

In Tables Nos. 21 and 22, the relationship between the occurrence of infectious diseases and the nutritional status of the children is analyzed for the beneficiary as well as the non-beneficiary population.

Of the 288 beneficiary children, 263 (91.3%) did not suffer infectious diseases in the last six months; in the group of non program children, the proportion of children who did not suffer from infectious diseases in the last six months was 91%.

In the group of beneficiaries, there is a relationship between the presence of infections and the prevalence of severe or moderate malnutrition. Of the children suffering infections, 24% were below - 2 SD. In children who did not suffer infections, this number was less than 21.3%, which shows that there were fewer undernourished children among those that had not suffered infections.

The number of children at risk was higher among those who did not suffer infections and the number of normal children was the same. In the case of non beneficiaries, a higher proportion of normal children among those that did not suffer infections was observed. Likewise, a lower proportion of children with severe malnutrition and a lower proportion of children with risk was observed.

#### Diarrhea

When analyzing the relationship of diarrhea with the nutritional status of the beneficiaries, it was found that, like with the infections, there was direct evidence of relationship.

Among children who did not have histories of diarrhea there was a higher number of normal children and a lesser number of severely or moderately undernourished children. A similar situation was observed among non beneficiary children; among the children that did not suffer from diarrhea in the last six months, there was a higher number of normal children.

#### Vaccination Coverage

The relationship between malnutrition and vaccination is analyzed in Tables Nos. 25 and 26. In this case an inverse association was observed. The percentage of children with normal weight among the group with complete vaccination series was 47% as compared with 48% among the children with vaccines still incomplete.

The number of undernourished children was slightly lower among children who were not completely vaccinated (19.2%), as compared with 22% among children that had completed them. In the case of non benefitted children, (Table No. 26) the number of undernourished children with incomplete vaccines was 24.6% as compared with 17.8% among children that had completed their vaccines.

Comparing health status of beneficiaries versus non beneficiaries, it can be said that the former appeared to be in better health than the non-benefitted children. Among the beneficiaries, 8.7% of the children had infectious diseases, a number slightly lower than among non benefitted children, which reached 9.1%.

Incidence of diarrhea was 39.2% among the beneficiaries and 50.5% among the non beneficiaries. In this case, the benefitted children were slightly better; although 81.9% of the benefitted children were completely vaccinated as compared with 80.1% of the non beneficiaries.

#### B) Environmental Sanitation

The conditions of environmental sanitation are closely related to the frequency of infectious and parasitic diseases and diarrhea, therefore, their direct influence on the nutritional status of the child was expected.

#### Latrines

Table No. 27 contains the data about ownership of latrines and nutritional status. No direct association between owning a latrine and an improved nutritional condition was found. The number of malnutrition is higher among the group that owns latrines than among those who do not own them; probably because many families with latrines, especially in rural areas, do not use them; but continue the habit of doing their toilet necessities out in the open.

As per Table No. 28, the situation is the same for non program children. The number of children with normal weight as well as those at risk and undernourished are similar in the groups with and without latrines. Reconfirming there is no direct association between these factors.

Relating access to potable water with malnutrition, in Tables Nos. 29 and 30, it can be stated that there is an association between both variables. Of the families without access to potable water, 26% of the population was considered below - 2 DS. Of the population which had potable water, 16.6% of the children were below - 2 DS. The situation was inverse for the non beneficiaries; 16.6% of the children who did not have potable water were classified below - 2 DS, and 23% of those with access to potable water were classified at that level.

From the results found in the analysis of conditions of environmental sanitation, one may conclude that there was a direct association between these factors and the nutritional status of the child, more noticeably among the beneficiaries of the program. This association is due to the direct relationship between the environmental sanitation and the incidence of parasitic, infectious diseases and diarrhea.

The frequency and duration of parasitic, infectious diseases and diarrhea has an unquestionable direct relationship with the

appearance of malnutrition. Both become cause and effect generating a vicious cycle in the child, taxing his system, growth and development possibly leading to death. This cycle develops in the following way: a greater frequency and duration of diseases and diarrhea, lead to faster debilitation of the body and higher risk of malnutrition; and therefore, more malnutrition, leads to higher susceptibility to disease and higher frequency and duration of illnesses.

Frequency and  
Duration of            <=====> Malnutrition  
Illnesses

In the children analyzed, the direct association between health status and malnutrition could be observed.

This association was more clearly defined in the cases where diarrhea occurred.

It is worth mentioning that according to the last report from CELADE, diarrhea is the most cause of illness in the country.

#### 7.04.05 Prevalence of Malnutrition by Diocese

In order to identify the geographic area where activities should be targetted, the prevalence of malnutrition was identified by Dioceses of the program.

The results of Table No. 32, show that some Dioceses have overweight children: San Salvador, Santa Ana, Zacatecoluca, San Miguel and Santiago de Maria. On the other hand, there were some that had children with severe malnutrition: Santa Ana, Sonsonate, San Vicente and Santiago de Maria.

Three of the Dioceses had over 50% normal children. The highest percentage of normal children was found in Santa Ana. This Diocese was also one of the two which had the highest numbers of severely undernourished and overweight children. The other regions which had overweight children were San Salvador and San Miguel. The remaining three Dioceses had populations with less than 50% normal children, these were: Sonsonate, Zacatecoluca and Santiago de Maria. The lowest percentage of normal children was found in San Vicente, which had only 20% of children with normal weights for their ages.

The analysis of the number of undernourished children, that is, below - 2 DS, shows that San Salvador had an incidence of 11%; Santa Ana, 17.5%; San Vicente, 40%; Zacatecoluca, 15%; San Miguel, 7.3%; and Santiago de Maria, 30%. According to these percentages, the highest incidence of malnutrition was found in San Vicente followed by Santiago de Maria, and then Santa Ana.

The conclusion is that the Diocese that was better off was San Salvador, with the lowest incidence of malnutrition, and one of the highest percentages of normal children. San Vicente was found to have the most cases of malnutrition, the lowest number (20%) of children with normal weight, and the highest number (40%) of undernourished children.

#### 7.05.00 Analysis of the Economic Impact

##### 7.05.01 Background

The objectives of the PL-480, Title II, are focussed on providing nutritional assistance to poor underdeveloped countries by donating food products to population groups of limited economic resources.

The PL-480, Title II program requires that the nutritional products imported from the United States, do not become a disincentive to the internal production of the country. The importation of foods from other countries has an effect on the economic system of the country, whose magnitude depends on the quantity and type of food when the product imported have a high direct participation in the normal supply.

For this analysis of the economic impact, a review of donated volumes during the last five years is presented. These are studied in the following concepts:

- AVAILABILITY OF THE PRODUCT IN THE COUNTRY
- INTERNAL DEMAND
- REQUIREMENTS FOR HUMAN CONSUMPTION

In addition to studying the volumes of products imported, their effects on internal markets, an important aspect in the creation of incentives or disincentives for the national production have been looked at. Tables Nos. 1, 2 and 3 annexed to this chapter demonstrate the data used for the following analysis.

#### 7.05.02 Corn

#### Demand Levels

QUANTITIES OF AVAILABLE CORN, INTERNAL DEMAND AND  
REQUIREMENTS FOR HUMAN CONSUMPTION PER YEAR  
(QUANTITIES IN THOUSANDS OF METRIC TONS)

YEAR	AVAILABILITY	INTERNAL DEMAND	TOTAL REQUIREMENTS PER YEAR FOR HUMAN CONSUMPTION
1984-85	627.6	507.6	418.0
1985-86	625.9	491.0	429.9
1986-87	622.2	385.6	441.9
1987-88	722.6	502.2	454.2
1988-89	645.6	466.8	466.6

The demands recorded during the period 1984-1988, and for 1988-1989 are given in the previous Table.

CARITAS Imports

IMPORTATIONS OF CORNFLOUR BY CARITAS  
(METRIC TONS)

YEAR	METRIC TONS
1984	1,451
1985	2,169
1986	3,174
1987	2,254
1988	2,695

Source: AID

The above amounts are direct imports of cornflour from the United States for the CARITAS program, delivered in several shipments during the year.

CRS/CARITAS import volumes remained the same during the one emergency shipment after the earthquake that destroyed part of the metropolitan area.

Degree of Effect of the Importations

## PERCENTAGE OF THE EFFECT OF IMPORTATIONS BY CARITAS

## ON GLOBAL SUPPLY

## (QUANTITIES AS PERCENTAGES)

YEAR	ABOVE AVAILABILITY	ABOVE INTERNAL DEMAND	ABOVE CONSUMPTION REQUIREMENTS
1984-85	0.2	0.3	0.3
1985-86	0.3	0.4	0.5
1986-87	0.5	0.8	0.7
1987-88	0.3	0.4	0.5
1988-89	0.4	0.6	0.6

Based on the above data, it is estimated that the importations of corn flour by CARITAS as a substitute in the human consumption of corn, does not disrupt supply and demand or become a disincentive for national producers.

## 7.05.03 Grain Rice

Levels of Consumption

VOLUME OF GRAIN RICE AVAILABLE, INTERNAL DEMAND AND  
 REQUIREMENTS FOR HUMAN CONSUMPTION PER YEAR  
 (QUANTITIES IN THOUSANDS OF METRIC TONS)

YEAR	AVAILABILITY	INTERNAL DEMAND	TOTAL REQUIREMENTS PER YEAR
1984-85	58.8	38.6	91.6
1985-86	68.8	45.5	94.2
1986-87	49.8	47.3	96.9
1987-88	44.8	37.9	99.6
1988-89	43.6	45.0	102.3

The data reveals that the annual consumption requirements, judged as 18 kilograms per person per year, have never been satisfied and the available quantities have not been sufficient. The requirement levels for human consumption used are parameters published by INCAP.

CARITAS ImportsIMPORTATIONS OF GRAIN RICE BY CARITAS  
(METRIC TONS)

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YEAR	METRIC TONS
1984	---
1985	541
1986	1,080
1987	1,355
1988	1,612

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The importations of grain rice by CARITAS were initiated in 1985 and have shown an increase each calendar year.

Role of the Imports in the Supply System

PERCENTAGE OF INCIDENCE OF THE IMPORTATIONS FOR CARITAS  
IN THE VARIOUS GLOBAL SUPPLY

YEAR	ABOVE AVAILABILITY	ABOVE INTERNAL DEMAND	ABOVE CONSUMPTION REQUIREMENTS
1984-85	---	---	---
1985-86	0.8	1.2	0.6
1986-87	2.2	2.3	1.1
1987-88	0.3	0.4	1.4
1988-89	3.7	3.6	1.6

The quantities of grain rice imports are not volumes which could negatively affect normal production for the following reasons:

- a. Normal production has shown a decrease during the last three years, directly lowering product availability in the market.
- b. Internal demand for human consumption is limited by availability.
- c. Volumes imported by CARITAS are uniformly distributed throughout the year.
- d. Volumes distributed by CARITAS are in minimum quantities which would not likely distort the supply-demand balance.

7.05.04 Powdered MilkNational Production

NATIONAL PRODUCTION OF LIQUID MILK  
(QUANTITIES IN THOUSANDS OF LITERS)

YEAR	LITERS
1983	217,200.0
1984	233,500.0
1985	249,100.0
1986	260,000.0
1987	260,000.0

The previous amounts correspond to the estimates of the national production of liquid milk as prepared by the General Directorate of Agriculture and Livestock Economics of the Ministry of Agriculture and Livestock.

The production quantities of liquid milk show increases during the five years studied, with production remaining static during the last two years.

CARITAS Imports

VOLUMES OF IMPORTED POWDERED MILK FOR CARITAS (IN METRIC TONS)  
AND CONVERSION TO LIQUID MILK (IN THOUSANDS OF LITERS)

YEAR	METRIC TONS	KILOGRAMS	THOUSANDS OF LITERS
1983	751	751,000	6,008.0
1984	1,451	1,451,000	11,608.0
1985	670	670,000	5,360.0
1986	1,292	1,292,000	10,336.0
1987	1,029	1,029,000	8,232.0

Source: AID

The previous table shows the importations of powdered milk for CARITAS and in kilograms. Using one Kilogram as equivalent to 8 liters, the total number of liters has been calculated. The conversion is made to establish comparative measures.

Degree of Impact of Importations by CARITAS on the National Production

PERCENT OF CARITAS IMPORTATIONS COMPARED TO THE NATIONAL PRODUCTION (QUANTITIES IN THOUSANDS OF LITERS)

YEAR	NATIONAL PRODUCTION	IMPORTATIONS BY CARITAS	PERCENTAGE
1983	217,200.0	6,008.0	2.8
1984	233,500.0	11,608.0	5.0
1985	249,100.0	6,960.0	2.8
1986	260,000.0	10,336.0	4.0
1987	260,000.0	8,232.0	3.2

As can be observed in the previous table, the economic impact of milk for human consumption imported by CARITAS, is minimal since its maximum participation (1984) was 5.0% of the national production. This is distributed uniformly over the 12 months of the year.

The volumes imported by CARITAS are not a disincentive for the national production, because it is a minimal quantity, destined for consumers without the economic resources with which to purchase the product on the market.

## VIII. GENERAL CONCLUSIONS

As per the beneficiary characteristics analysis, project operations, and nutritional assistance impact on the children's nutritional status, the following is concluded:

### 8.01.00 Beneficiary Characteristics

8.01.01. The analysis demonstrated that the beneficiaries daily average income is C10.16, which is lower than the cost of the basic food basket. This indicates that the program beneficiaries are living in conditions of extreme poverty.

8.01.02. The housing conditions demonstrate the extremely poor conditions in which the program beneficiaries and a high percentage of the non beneficiaries are living. The families generally, are composed of six members, most live in a one-room house, with no potable water, latrines located outside the house, which are generally constructed of dirt floors and adobe walls. In summary, these families live in crowded conditions and with inappropriate environmental sanitation which endangers their health.

8.01.03. The majority of the surveyed population were young (50% were under 15 years of age) and the population over 15 years of age considered economically active reported a low percentage of employment. Of the 50% who were working, the most common employment for men was an agriculture labourer and for women as domestic servant.

8.01.04. Beneficiaries and non-beneficiaries had low educational levels with a high percentage of illiteracy. The most common educational level is the third grade, and the percentage of persons with some degree of literacy was 37%.

8.01.05. Very few families stated that they produced food products for self-consumption. Relating this to the low employment levels, income, and the cost of the basic food basket, it is evident that these families are not consuming the required minimum amount of food, and therefore, are considered undernourished.

8.01.06 Given the extremely poor conditions in which these families are living, the supplementary food is not only consumed by the program beneficiaries, but by all of the family members. For this reason, the complementary ration provided by the program, is considered an aid for the program beneficiary as well as for the whole family group.

8.01.07 The beneficiaries feeding habits are better compared to the non-beneficiaries. This demonstrates a positive impact on the modification of feeding attitudes and practices.

8.01.08. The five mayor causes of morbidity among the beneficiaries are: diarrhea, undernutrition, parasites, respiratory and skin infections, all of which respond to a medical prevention problem.

#### 8.02.00 Program Operation

8.02.01 There is no updated operational manual which establishes the operation of the program basic activities such as: in-out registry, food delivery frequency, educational component, and handling of food. There are differences in these procedures between one Diocesis and another, and between the Nutritional Centers.

8.02.02 50.6% of the beneficiaries had participated in the program for less than six months, 81% have more than six months of being registered, 75% more than 9 months, 50% more than one year, and 25% have two or more years.

8.02.03 Although few, there is a percentage of children over six years of age registered under the program, which could be limiting the acceptance of other high risk children into the program.

8.02.04 A high percentage of the nutritional centers do not have scales to control the child's weight, which is important in evaluating the children's nutritional status. 32% of the beneficiaries reported being registered without being weighed.

8.02.05 According to the beneficiaries registry cards, there are constraints in the monitoring of weight/age. Most of the centers utilize only one curve to evaluate both sexes, creating a bias in the information. On the other hand, some do not show the date of weighing nor the plotting points in the weight/age curve to determine their nutritional status.

8.02.06 There is no set frequency for weight monitoring. Some reported that they are weighed after the food distribution, others every three months, and some reported they have never been weighed; the situation is exacerbated by the fact that improperly trained personnel affect data accuracy.

8.02.07 In most cases, the person responsible for the child is not the one requesting the food at the centers. The anomaly prevents the educational component from reaching the right persons, and continuity of the program.

8.02.08 There is no uniformity in the use of the beneficiary registry control card, and 13% reported that they receive food without presenting the card.

8.02.09 Over 66% of the interviewed reported that they had received educational sessions, however the frequency is variable. Some reported that they had received the sessions on a monthly basis, others every two months, and others every three months. With respect to the content of the sessions, the most important was judged to be the use, preparation and importance of the food.

8.02.10 The persons in charge of the the educational component are in first, the Diocesis promoters and secondly, community volunteers. This is a positive aspect since both are members of the community. In the evaluators' opinion, the sessions given to the beneficiaries are generally well accepted.

8.02.11 In relation to food logistics, beneficiaries and Diocesis managers reported that they received food products on a monthly basis, which is a very positive aspect since this allows the beneficiary to plan on a complementary ration on a timely basis.

8.02.12 Although 85% of the centers reported that they have appropriate warehouses to store food products, these do not meet the required conditions to protect the food products for long periods of time.

8.02.13 There is uniformity in the size of the ration provided to the beneficiaries, however, in the opinion of the beneficiaries and the Diocesis managers, the quantity of food products provided is not sufficient, which is understandable considering the ration is consumed in most cases, by all of the members of the family.

8.02.14 The M-CH program supervision at different levels does not have the desirable level of coverage, due to the high number of centers assigned to each Diocese educator and to the geographic location of each center.

8.02.15 Community participats assists in food distribution, especially during food packaging, delivery and cleaning of the centers, as well as during educational sessions.

8.02.16 The beneficiaries view the program as an aid to the poor that helps the family group, however, it is important to analyze the beneficiaries dependency on the program. 48% of the beneficiaries reported that in the event of a phase-out, they would have to work more to obtain food, 16% reported that they would seek another program, and 10% they would accept the situation.

### 8.03.00 Nutritional Impact

According to the comparative nutritional study, the following was found:

8.03.01 There is no significant difference in undernutrition between the beneficiaries and the non-beneficiaries indicating that the M-CH participating group would be in worse conditions if they had not received complementary food. The population distribution by nutritional categories is similar in both groups.

8.03.02 The undernutrition analysis carried out by sex, demonstrated that there is no significant difference in the undernutrition, therefore, this is not a determining factor.

8.03.03 The age group analysis of nutritional status demonstrated that the most affected group was composed of children from one to two years of age with slightly higher levels than the group from 2 to 4 years of age, which was seriously affected compared to other groups. The least affected group were the children under one year of age.

8.03.04 The M-CH nutritional centers registry analysis demonstrated that there have been positive nutritional changes among the children of six months of age. A change from severe to moderate or at risk undernutrition, and in some cases even to normal was evident.

8.03.05 The regional analysis demonstrated that the Dioceses with highest prevalence of undernutrition were those of San Vicente and Santiago de Maria, and the one with the least cases was San Salvador

#### 8.04.00 Economic\_Impact

8.04.01 The program beneficiaries are families with such low income levels that even if they did not receive complementary rations, their food demand would not be increased because they do not have resources with which to purchase them.

8.04.02 The food imports via grants do not cover the food deficit obtained by comparing the biological food demand with the local availability. This situation applied to four of the products distributed by the M-CH program.

8.04.03 The imported Title II commodities are distributed uniformly during the 12 months of the year to program beneficiaries, in monthly amounts that do not affect market conditions.

#### 8.05.00 General\_Conclusion

After analyzing the results of this evaluation, it is concluded that the implementation and management of the CARITAS Maternal Child Program of El Salvador is consistent with the objectives and goals established by the FL-480, Title II program.

## IX. RECOMMENDATIONS

The preceding conclusions result in the following recommendations:

9.01.00 Since the CARITAS M-CH program meets the established objectives and goals of the FL-480, Title II and is focused towards the poorest population of the country, it is recommended the program be continued.

9.02.00 Review as soon as possible, the operational manual which standardizes the program operation at separate Diocesan centers. This activity must be followed by the distribution of the document at all levels of implementation, and a training program to teach the personnel how to interpret and apply the operational manual.

9.03.00 Conduct a needs analysis of materials, human and financial resources at the different levels of implementation of the program in order to provide them with the necessary elements for proper program implementation, such as personnel, scales, growth charts, educational material, stationary, etc.

9.04.00 Review the methodologies and contents of educational materials to adapt them to the beneficiaries needs and characteristics or to the persons responsible for the beneficiaries and to establish the educational component as an obligatory requisite.

9.05.00 Establish a supervision plan at the different levels in order to implement program procedures. It is recommended that the supervision guide be updated including the most important aspects of the program.

9.06.00 Establish mechanisms of coordination with the Ministry of Health and Social Assistance so that through the reference and cross-reference mechanisms, the program beneficiaries may receive health benefits, especially for mothers and children.

9.07.00 Establish a continual training system for the personnel who develop various activities (promoters, volunteers, supervisors, etc.) in order to obtain better execution of their activities.

9.08.00 Given conditions of poverty and the demand observed in the Nutritional Centers, it is recommended that program coverage be increased.

9.09.00 As the CRS/CARITAS financial capacity permits, add to the program productive and community development activities that allow the beneficiaries to improve their levels of income.

9.10.00 Encourage the production and consumption of vegetables and fruits as a source of nutrition.

9.11.00 Since the most affected age group was of children from 1 to 2 years of age, it is recommended that the educational component of the program emphasize important aspects such as breastfeeding, weaning, health education, preventative health care and diarrheal disease control.

9.12.00 Make specific efforts to assist the San Vicente and Santiago de Maria Dioceses, which presented the highest undernutrition prevalences due to regional environmental conditions.

9.13.00 Encourage greater community participation in program activities to include a broader coverage of persons responsible for beneficiaries.

9.14.00 Powdered milk is considered the most important product in the ration since it is consumed entirely by children, therefore, it is recommended that it always be included as a food supplement in future imports.

9.15.00 Because the actual quantities distributed among program beneficiaries are small in relation to normal requirements for human consumption, and because they represent nutritional assistance for families with limited resources, it is recommended that the food assistance program continue.

Table No. 3

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN  
IN AND OUT OF PROGRAM, ACCORDING SCHOOL LEVEL OF EACH  
PERSON WHO READS AND WRITES

School Level	In Program		Out of Program	
	Qty	%	Qty	%
1st Grade	65	9.7	71	9.8
2nd Grade	94	14.1	117	16.3
3nd Grade	111	16.6	106	14.7
4nd Grade	90	13.5	105	14.6
5nd Grade	49	7.4	66	9.2
6nd Grade	95	14.2	101	14.0
7nd Grade	29	4.4	38	5.3
8nd Grade	14	2.1	26	3.6
9nd Grade	36	5.4	42	5.8
High school	24	3.5	37	5.1
University	-	-	3	0.5
Others	-	-	3	0.5
It was not informed	61	9.1	4	0.6
<b>TOTALS</b>	<b>668</b>	<b>100.0</b>	<b>719</b>	<b>100.0</b>

Table No. 4

PERCENTAGE OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN  
 IN AND OUT OF THE PROGRAM, ACCORDING TO WHETHER  
 PERSONS OLDER THAN FIFTEEN YEARS OLD WORK OR NOT

O p i n i O n	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Work	455	56.7	388	47.3
Do not work	347	43.3	432	52.7
<b>TOTALS</b>	802	100.0	820	100.0

Table No. 5

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN  
IN AND OUT PROGRAM, ACCORDING TO OCCUPATION OR  
EMPLOYMENT OF PERSONS WHO WORK

Occupation or Employment	In Program		Out of Program	
	Qty	%	Qty	%
Mason	21	4.6	24	6.2
Journeyman	82	18.1	90	23.2
Driver	6	1.3	9	2.3
Account	4	0.8	10	2.6
In Domestic Services	37	8.3	59	15.2
Mechanic	7	1.6	3	0.8
Farmer	188	41.3	98	25.2
In Sales	23	5.2	22	5.7
Carpenter	6	1.3	9	2.3
In roads	3	0.6	2	0.5
In Factories	3	0.6	6	1.5
Soldier	5	1.1	3	0.8
In Farm	5	1.1	24	6.2
Seamstress	3	0.6	5	1.3
School Teacher	-	-	4	1.0
	-	-	2	0.5

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Continuation Table No. 5

Occupation or Employment	In Program		Out of Program	
	Qty	%	Qty	%
Tile Maker	3	0.6	5	1.3
Others	59	12.9	13	3.4
TOTALS	455	100.0	388	100.0

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Table No. 6

PROPORTION OF FAMILIES ACCORDING TO INCOME  
LEVEL AMONG BENEFITED AND NON BENEFITED FAMILIES

Income Levels	<u>Beneficiaries</u>	<u>Non Beneficiaries</u>
¢	%	%
Less than ¢ 10.00	27.0	27.3
> 10 < 15.00	10.5	22.3
>15 < 20.00	17.9	5.0
>20 < 25.00	7.1	2.5
More than 25	7.1	12.4
Nobody works	5.4	25.5
It was not informed	25.0	5.0
<b>TOTALS</b>	<b>100</b>	<b>100.0</b>

## FAMILIES WHO CULTIVATED FOODS AND THEIR USE

Foods	<u>Beneficiaries</u> %	<u>Non Beneficiaries</u> %
<u>CORN</u>		
Do not Cultivate	49.6	63.1
Self Consumption	45.0	35.8
sale	0.7	0.4
both	4.2	0.7
<u>BEANS</u>		
Do not Cultivate	72.9	86.8
Self Consumption	27.1	13.8
sale	-	-
both	-	-
<u>SQUASH</u>		
Do not Cultivate	87.2	98.9
Self Consumption	12.8	1.1
sale	-	-
both	-	-
<u>TOMATO</u>		
Do not Cultivate	93.1	98.9
Self Consumption	6.6	1.1
sale	-	-
both	-	-
<u>SORGHUM</u>		
Do not Cultivate	93.4	99.3
Self Consumption	5.1	0.7
sale	0.4	-
both	-	-
<u>RICE</u>		
Do not Cultivate	94.7	98.6
Self Consumption	4.2	0.7
sale	-	-
Ambos	1.1	0.7

Table No. 8

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN  
 IN AND OUT OF THE PROGRAM, ACCORDING TO WHETHER THE  
 DWELLING WHERE THEY LIVE IS THEIR OWN, RENTED, OR  
 BELONGS TO ANOTHER PERSON

Dwelling status	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Own	144	50.0	169	58.9
Rent	101	35.1	84	29.3
Belongs to another Person	43	14.9	34	11.8
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

## LIST OF TABLES AT THE HEALTH LEVEL

- TABLE "A" : COMPARISON BETWEEN THE NUTRITIONAL STATE FOUND AMONG BENEFITED CHILDREN IN CARITAS PROGRAM AND NON BENEFITED CHILDREN, ACCORDING TO THE GOMEZ CLASSIFICATION.
- TABLE "B" : PREVALENCE OF MALNUTRITION AMONG BENEFITED CHILDREN OF THE PROGRAM BY AGE GROUPS, ACCORDING TO THE GOMEZ CLASSIFICATION.
- TABLE "C" : PREVALENCE OF MALNUTRITION AMONG NON BENEFITED CHILDREN OF THE PROGRAM BY AGE GROUPS, ACCORDING TO THE GOMEZ CLASSIFICATION.
- TABLE "D" : PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO THE NUMBER OF PERSONS WHO MAKE UP THE FAMILY GROUP.
- TABLE "E" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD WITH INFECTIOUS/CONTAGIOUS DISEASES, SIX MONTHS PRIOR TO THE EVALUATION.
- TABLE "F" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD WITH A COMPLETE VACCINATION OUT-LINE BY AGE, AT THE TIME OF THE EVALUATION.
- TABLE "G" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD WITH RESPIRATORY DISEASES, SIX MONTHS PRIOR TO THE EVALUATION.
- TABLE "H" : PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO NUMBER OF ROOMS IN THE DWELLING.
- TABLE "I" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD WITH DISEASES OF THE URINARY SYSTEM, SIX MONTHS PRIOR TO THE EVALUATION.

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- TABLE "J" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD WITH INTESTINAL PARASITISM, SIX MONTHS PRIOR TO THE EVALUATION.
- TABLE "K" : PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO TYPE OF FLOOR OF THE DWELLING.
- TABLE "L" : PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO THE PLACE WHERE THEY GET WATER.
- TABLE "M" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD WITH DIARRHEA, SIX MONTHS PRIOR TO THE EVALUATION.
- TABLE "N" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD, ACCORDING TO THE STATE OF THEIR HEALTH AT THE TIME OF THE EVALUATION.
- TABLE "O" : PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, BY OWNERSHIP OF SANITARY SERVICES.
- TABLE "P" : PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD, ACCORDING TO ILLNESS AT THE TIME OF THE EVALUATION.

Table "A"

**COMPARISON BETWEEN THE NUTRITIONAL STATE FOUND AMONG BENEFITED CHILDREN OF CARITAS PROGRAM  
AND NO BENEFITED CHILDREN, ACCORDING TO THE GOMEZ CLASSIFICATION**

Degree of Nutrition	<u>Beneficiaries</u>		<u>Non Beneficiaries</u>	
	Qty	%	Qty	%
Normal	97	33.7	102	35.6
Undernourished Grade I	128	44.4	131	45.6
Undernourished Grade II	60	20.8	50	17.4
Undernourished Grade III	3	1.1	4	1.4
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

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Table "B"

PREVALENCE OF MALNUTRITION AMONG BENEFITED CHILDREN OF THE PROGRAM BY  
AGE GROUPS, ACCORDING THE GOMEZ CLASSIFICATION

Age Groups	Normals		Grade 1		Grade 2		Grade 3		T o t a l	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	29	31.2	44	47.3	19	20.4	1	1.1	93	100.0
From 2 to less than 4 years	32	29.4	48	44.0	27	24.8	2	1.8	109	100.0
From 4 to more years	36	41.8	36	41.8	14	16.4	-	-	86	100.0
<b>TOTALS</b>	<b>97</b>	<b>33.7</b>	<b>128</b>	<b>44.5</b>	<b>60</b>	<b>20.8</b>	<b>3</b>	<b>1.0</b>	<b>288</b>	<b>100.0</b>

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Table "C"

**PREVALENCE OF MALNUTRITION AMONG NON BENEFITED CHILDREN OF THE PROGRAM  
BY AGE GROUPS, ACCORDING TO THE GOMEZ CLASSIFICATION**

Age Groups	Normal		Grade 1		Grade 2		Grade 3		total	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	22	28.9	34	44.7	18	23.7	2	2.7	76	100.0
From 2 to less than 4 years	37	39.4	41	43.6	16	17.0	-	-	94	100.0
From 4 to more years	43	36.8	56	47.9	16	13.6	2	1.7	117	100.0
<b>TOTALS</b>	<b>102</b>	<b>35.6</b>	<b>131</b>	<b>45.6</b>	<b>50</b>	<b>17.4</b>	<b>4</b>	<b>1.4</b>	<b>287</b>	<b>100.0</b>

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Table "D"

**PERCENTAGE OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN IN AND OUT OF PROGRAM,  
ACCORDING TO THE NUMBER OF PERSONS WHO MAKE UP THE FAMILY GROUP**

Number of persons	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
2	-	-	1	0.3
3	19	6.6	11	3.8
4	50	17.4	35	12.2
5	41	14.3	45	15.7
6	66	22.9	61	21.3
7	42	14.6	37	12.9
8	38	13.2	30	10.5
9	14	4.8	26	9.1
10	8	2.8	28	9.7
11	7	2.2	6	2.1
12	3	1.1	6	2.1
13	-	-	1	0.3
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Question No. 20: Number of persons of the family group?

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**PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS  
WITH INFECTIOUS/CONTAGIOUS DISEASES SIX MONTH PRIOR TO THE EVALUATION**

Age Groups	In the Program						Out of Program					
	C h i l d r e n						C h i l d r e n					
	T o t a l		W i t h		W i t h o u t		T o t a l		W i t h		W i t h o u t	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	93	100.0	6	6.5	87	93.5	74	100.0	5	6.7	693.3	
From 2 to less than 4 years	109	100.0	9	10.1	100	89.9	96	100.0	9	9.4	87	90.6
From 4 to more years	86	100.0	7	8.1	79	91.9	117	100.0	10	8.5	107	91.5
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>22</b>	<b>7.6</b>	<b>266</b>	<b>92.4</b>	<b>287</b>	<b>100.0</b>	<b>24</b>	<b>8.4</b>	<b>263</b>	<b>91.6</b>

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Table "F"

PERCENTAGE OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD  
WITH COMPLETE VACCINATION OUTLINE, BY AGE AT THE TIME OF THE EVALUATION

Age Groups	IN THE PROGRAM						Out Of Program					
	C h i l d r e n						C h i l d r e n					
	Total		Complete		Incomplete		Total		Complete		Incomplete	
	Qty	%	Vaccination Qty	Vaccination %	Vaccination Qty	Vaccination %	Qty	%	Vaccination Qty	Vaccination %	Qty	%
Less than 2 years	93	100.0	64	68.8	29	31.2	74	100.0	59	79.7	15	20.3
From 2 to less than 4 years	109	100.0	95	87.2	14	12.8	96	100.0	73	76.0	23	24.0
From 4 to more than six	86	100.0	77	89.5	9	10.5	117	100.0	98	83.8	19	16.2
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>236</b>	<b>81.9</b>	<b>52</b>	<b>18.1</b>	<b>287</b>	<b>100.0</b>	<b>230</b>	<b>80.1</b>	<b>57</b>	<b>19.9</b>

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Table "G"

PERCENTAGE OF CHILDREN LESS THAN SIX YEARS OLD WITH RESPIRATORY DISEASES SIX MONTHS  
PRIOR TO THE EVALUATION

Age Groups	In the Program						Out of Program					
	C h i l d r e n		C h i l d r e n		C h i l d r e n		C h i l d r e n		C h i l d r e n		C h i l d r e n	
	T o t a l		W i t h		W i t h o u t		T o t a l		W i t h		W i t h o u t	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	93	100.0	71	76.3	22	23.7	78	100.0	54	73.0	20	27.0
From 2 to less than 4 years	109	100.0	92	84.4	17	15.6	96	100.0	82	85.4	14	14.6
From 4 to more years	86	100.0	54	62.8	32	37.2	117	100.0	91	77.8	26	22.2
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>217</b>	<b>75.4</b>	<b>71</b>	<b>24.6</b>	<b>291</b>	<b>100.0</b>	<b>227</b>	<b>79.1</b>	<b>60</b>	<b>20.9</b>

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Table "H"

PERCENTAGES OF DISTRIBUTION OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN,  
IN AND OUT OF THE PROGRAM, ACCORDING TO THE NUMBER OF ROOMS OF DWELLING

Number of Rooms	In Program		Out of Program	
	Qty	%	Qty	%
1	215	79.6	204	71.1
2	52	18.1	49	17.1
3	11	3.8	29	10.1
More than 3	10	3.5	5	1.7
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Question No. 15: How many rooms does it have?

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Table " I "

PERCENTAGE OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD  
WITH DISEASES OF THE URINARY SYSTEM SIX MONTHS PRIOR TO THE EVALUATION

Age Groups	<u>IN the Program</u>						<u>Out of Program</u>					
	C h i l d r e n						C h i l d r e n					
	<u>Total</u>		<u>with</u>		<u>Without</u>		<u>Total</u>		<u>With</u>		<u>Without</u>	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	93	100.0	-	-	93	100.0	74	100.0	3	4.1	71	95.9
From 2 to less than 4 years	189	100.0	1	0.9	188	99.1	96	100.0	2	2.1	94	97.9
From 4 to more years	86	100.0	1	1.2	85	98.8	117	100.0	1	0.9	116	99.1
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>2</b>	<b>0.7</b>	<b>286</b>	<b>99.3</b>	<b>287</b>	<b>100.0</b>	<b>6</b>	<b>2.1</b>	<b>281</b>	<b>97.9</b>

Consultores en Mercadeo de C. A.

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Table "J"

PERCENTAGE O DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD  
WITH INTRESTINAL PARASITISM SIX MONTH PRIOR TO THE EVALUATION

Age Groups	In the Program						Out of Program					
	C h i l d r e n						C h i l d r e n					
	Total		Parasitism		Parasitism		Total		Parasitism		Parasitism	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	93	100.0	5	5.4	88	94.6	74	100.0	10	13.5	64	86.5
From 2 to less than 4 years	189	100.0	15	13.8	94	86.2	96	100.0	10	10.4	86	89.6
From 4 to more than 4 years	86	100.0	18	20.9	68	79.1	117	100.0	16	13.7	101	86.3
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>38</b>	<b>13.2</b>	<b>250</b>	<b>86.8</b>	<b>287</b>	<b>100.0</b>	<b>36</b>	<b>12.5</b>	<b>251</b>	<b>87.5</b>

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Table "K"

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN IN AND OUT OF THE PROGRAM,  
 ACCORDING TO TYPE OF FLOOR IN THE DWELLING

Type of floor	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Dirt	204	78.8	197	68.6
Brick	52	18.1	55	19.2
Cement	32	11.1	34	11.8
Others			1	0.4
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Question No. 14: And the floor, of what is it made, dirt, brick or cement?

Consultores en Mercadeo de C. A.

Table "B"

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN,  
IN AND OUT OF THE PROGRAM, ACCORDING TO THE PLACE WHERE THEY GET TOGETHER

Type of system	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Well	135	60.8	126	56.8
Neighboring pipe	72	32.4	62	27.9
River	10	4.5	2	0.9
Tank	-	-	7	3.2
Tank truck	-	-	8	3.6
Pump	-	-	17	7.6
Other	5	2.3	-	-
<b>TOTALS</b>	<b>222</b>	<b>100.0</b>	<b>222</b>	<b>100.0</b>

Question No. 19: How do you get water?

Consultores en Mercadeo de C. A.

Table "H"

**PERCENTAGES OF CHILDREN LESS THAN SIX YEARS OLD WITH DIARRHEA  
SIX MONTH PRIOR TO THE EVALUATION**

Age Groups	In the Program						Out Of Program					
	C h i l d r e n			C h i l d r e n			C h i l d r e n			C h i l d r e n		
	Total		Diarrhea		Diarrhea		Total		Diarrhea		Diarrhea	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	93	100.0	41	44.1	52	55.9	74	100.0	37	50.0	37	50.0
From 2 to less than 4 years	109	100.0	44	40.4	65	59.6	96	100.0	52	54.2	44	45.8
From 4 to more years	86	100.0	28	32.6	58	67.4	117	100.0	56	47.8	61	52.2
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>113</b>	<b>39.3</b>	<b>175</b>	<b>60.7</b>	<b>287</b>	<b>100.0</b>	<b>145</b>	<b>50.5</b>	<b>142</b>	<b>49.5</b>

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Table "B"

PERCENTAGE OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD  
 ACCORDING TO THEIR STATE OF HEALTH AT THE TIME OF THE EVALUATION

Age Groups	In the Program						Out of the Program					
	C h i l d r e n		C h i l d r e n		C h i l d r e n		C h i l d r e n		C h i l d r e n		C h i l d r e n	
	Total	Healthy	Sick	Total	Healthy	Sick	total	Healthy	Sick	total	Healthy	Sick
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2 years	93	32.3	55	29.1	38	38.4	74	25.9	40	20.6	25	31.3
From 2 to less than 4 years	108	37.5	72	38.1	37	37.4	96	33.4	64	32.9	25	31.3
From 4 to more years	87	30.2	62	32.8	24	24.2	117	40.8	90	46.5	30	37.4
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>189</b>	<b>100.0</b>	<b>99</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>	<b>194</b>	<b>100.0</b>	<b>80</b>	<b>100.0+</b>

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PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN,  
IN AND OUT OF THE PROGRAM, ACCORDING TO OWNERSHIP OF SANITARY SERVICES

Ownership	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Has	185	64.3	215	74.9
Has not	103	35.7	72	25.1
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Question No. 16: Does it have sanitary services?

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Table "P"

PERCENTAGES OF DISTRIBUTION OF CHILDREN LESS THAN SIX YEARS OLD,  
ACCORDING TO ILLNESS AT THE TIME OF THE EVALUATION

Illness	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
1) Acute Respiratory	60	55.6	43	47.8
2) Infectious/Contagious	-	-	2	2.2
3) Infection of Urinary System	-	-	-	-
4) Parasitism	11	10.2	7	7.8
5) Diarrhea	7	6.5	2	2.2
6) Others	30	27.7	36	40.0
<b>TOTALS</b>	<b>108</b>	<b>100.0</b>	<b>90</b>	<b>100.0</b>

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TABLES CALCULATED  
AT THE HEALTH LEVEL

## LIST OF TABLES AT THE NUTRITIONAL LEVEL

- TABLE No. 1 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM. ACCORDING TO AGE (AGE STRATA) OF MEMBERS IN THE FAMILY GROUP.
- TABLE No. 2 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM. ACCORDING TO SEX OF MEMBERS IN THE FAMILY GROUP.
- TABLE No. 3 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM. ACCORDING TO SCHOOL LEVEL OF EACH PERSON WHO READS AND WRITES.
- TABLE No. 4 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM. ACCORDING TO WHETHER PERSONS OLDER THAN FIFTEEN YEARS OLD WORK OR NOT.
- TABLE No. 5 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM. ACCORDING TO OCCUPATION OR EMPLOYMENT OF PERSONS WHO WORK.
- TABLE No. 6 PROPORTION OF FAMILIES ACCORDING TO INCOME LEVEL AMONG BENEFITED AND NON BENEFITED FAMILIES.
- TABLE No. 7 FAMILIES WHO CULTIVATED FOODS AND THEIR USE.
- TABLE No. 8 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM. ACCORDING TO WHETHER THE DWELLING WHERE THEY LIVE IS THEIR OWN, RENTED OR BELONGS TO ANOTHER PERSON.
- TABLE No. 9 SOURCES OF WATER SUPPLY AMONG THE POPULATING GROUPS STUDIED.
- TABLE No. 10 MORE FREQUENT CHARACTERISTICS OF DWELLING AMONG BENEFITED AND NON BENEFITED GROUPS OF THE PROGRAM.

- TABLE No. 11 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO THE FOODS THEY GAVE THEM FOR BREAKFAST YESTERDAY.
- TABLE No. 12 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO THE FOODS THEY GAVE THEM FOR LUNCH YESTERDAY.
- TABLE No. 13 PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN, IN AND OUT OF THE PROGRAM, ACCORDING TO THE FOODS THEY GAVE THEM FOR DINNER YESTERDAY.
- TABLE No. 14 COMPARISON BETWEEN THE CONDITION OF BENEFITED CHILDREN OF CARITAS PROGRAM AND NON BENEFITED CHILDREN, ACCORDING TO THE GOMEZ CLASSIFICATION.
- TABLE No. 15 COMPARISON BETWEEN THE NUTRITIONAL CONDITION OF BENEFITED CHILDREN OF CARITAS PROGRAM AND NON BENEFICIARIES, ACCORDING TO N C H S STANDARDS.
- TABLE No. 16 PREVALENCE OF MALNUTRITION AMONG BOYS AND GIRLS OF BENEFITED AND NON BENEFITED FAMILIES OF THE PROGRAM, ACCORDING TO N C H S STANDARDS.
- TABLE No. 17 PREVALENCE OF MALNUTRITION AMONG BENEFITED CHILDREN BY AGE GROUPS, ACCORDING TO N C H S STANDARDS.
- TABLE No. 18 PREVALENCE OF MALNUTRITION AMONG CHILDREN OF NON BENEFITED FAMILIES BY AGE GROUPS, ACCORDING TO N C H S STANDARDS.
- TABLE No. 19 COMPOSITION OF AGE GROUPS IN JUNE 1988 AND CHANGES IN DISTRIBUTION BETWEEN JANUARY AND JUNE 1988. DATA TAKEN ACCORDING TO THE GOMEZ CLASSIFICATION (BOYS).
- TABLE No. 20 COMPOSITION OF AGE GROUPS IN JUNE 1988 AND CHANGES IN MALNUTRITION DISTRIBUTION BETWEEN JANUARY AND JUNE 1988. DATA TAKEN ACCORDING TO THE GOMEZ CLASSIFICATION (GIRLS).

- TABLE No. 21 NUTRITIONAL STATE OF BENEFITED CHILDREN ACCORDING TO THE OCCURRENCE OF INFECTIOUS DISEASES DURING THE LAST SIX MONTHS.
- TABLE No. 22 NUTRITIONAL STATE OF NON BENEFITED CHILDREN ACCORDING TO THE OCCURRENCE OF INFECTIOUS DISEASES DURING THE LAST SIX MONTHS.
- TABLE No. 23 NUTRITIONAL STATE OF BENEFITED CHILDREN ACCORDING TO THE OCCURRENCE OF DIARRHEA IN THE LAST SIX MONTHS.
- TABLE No. 24 NUTRITIONAL STATE OF NON BENEFITED CHILDREN ACCORDING TO THE OCCURRENCE OF DIARRHEA IN THE LAST SIX MONTHS.
- TABLE No. 25 NUTRITIONAL STATE OF CHILDREN ACCORDING TO THE SITUATION FOUND REGARDING VACCINATION AMONG BENEFICIARIES OF THE PROGRAM.
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- TABLE No. 27 NUTRITIONAL STATE ACCORDING TO THE EXISTENCE OF LATRINES, AMONG BENEFITED CHILDREN OF THE PROGRAM.
- TABLE No. 28 NUTRITIONAL STATE ACCORDING TO THE EXISTENCE OF LATRINES, AMONG NON BENEFITED CHILDREN OF THE PROGRAM.
- TABLE No. 29 NUTRITIONAL STATE ACCORDING TO OWNERSHIP OF POTABLE WATER IN AND OUT OF THE DWELLING, AMONG BENEFITED CHILDREN OF THE PROGRAM.
- TABLE No. 30 NUTRITIONAL STATE ACCORDING TO OWNERSHIP OF POTABLE WATER IN AND OUT OF THE DWELLING, AMONG NON BENEFITED CHILDREN OF THE PROGRAM.
- TABLE No. 31 NUTRITIONAL STATE FOUND AMONG BENEFITED CHILDREN OF THE PROGRAM, ACCORDING TO EXISTENCE OF LATRINES AND POTABLE WATER.
- TABLE No. 32 COMPARISON OF THE NUTRITIONAL STATE OF BENEFITED CHILDREN OF CARITAS PROGRAM, ACCORDING TO NCHS STANDARDS, BY DIOCESE.

Table No. 1

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN  
 IN AND OUT PROGRAM, ACCORDING TO AGE (AGE STRATA)  
 OF MEMBERS IN THE FAMILY GROUP

Age strata	In Program		Out of Program	
	Qty	%	Qty	%
Up to 5 years	600	33.8	600	31.2
From 5.1 to 10 years	248	13.9	310	16.1
From 10.1 to 15 years	125	7.1	200	10.4
From 15.1 to 20 years	168	9.5	150	7.8
From 20.1 to 25 years	172	9.7	134	6.9
From 25.1 to 30 years	156	8.8	124	6.4
From 30.1 to 35 years	94	5.3	79	3.9
From 35.1 to 40 years	69	3.9	95	4.9
More than 40 years	137	7.7	209	10.8
It was not informed	6	0.3	29	1.6
<b>TOTALS</b>	<b>1,775</b>	<b>100.0</b>	<b>1,930</b>	<b>100.0</b>

Table No. 2

PERCENTAGES OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN  
IN AND OUT PROGRAM ACCORDING  
TO SEX OF THE FAMILY GROUP

S E X	In Program		Out of Program	
	Qty	%	Qty	%
Feminine	834	46.9	928	48.1
Masculine	941	53.1	1002	51.9
TOTALS	1,775	100.0	1,930	100.0

Table No. 9

SOURCES OF WATER SUPPLY AMONG THE POPULATING  
GROUPS STUDIED

Sources of Water Supply	<u>Beneficiaries</u> %	<u>Non Beneficiaries</u> %
Pipe	22.9	22.6
Others	77.1	77.4
Well	46.9	43.9
Neighbouring pipe	25.0	21.6
River	3.5	0.17
Tank	-	2.4
Ambulant tank trucks	-	2.8
Pump	-	6.0
Others	1.7	-
<b>TOTALS</b>	<b>100.0</b>	<b>100.0</b>

Table No. 10

MORE FREQUENT CHARACTERISTICS OF DWELLING AMONG BENEFITED  
AND NON BENEFITED GROUPS IN PROGRAM

Characteristics	<u>Beneficiaries</u> %	<u>Non Beneficiaries</u> %
Own	50.0	59.0
Adobe Construction	40.3	35.5
Tile Roof	56.3	56.1
Dirt Floor	68.8	68.6
One only Room	74.6	71.1
Has sanitary services	64.3	74.9
Sanitary service outside dwelling	87.6	92.1
Water Supply	77.1	77.4
	288	287

Table No. 11

**PERCENTAGES OF INFORMANTS OR MOTHERS OF CHILDREN WRIGHED IN AND OUT THE PROGRAM,  
ACCORDING TO THE FOODS THEY GAVE FOR BREAKFAST YESTERDAY**

Foods	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Beans	188	54.8	157	54.7
Rice	79	27.4	49	17.1
Milk	147	51.1	86	29.9
Coffee	63	21.8	123	42.8
Eggs	103	35.7	125	43.6
Bakery Goods	36	12.5	95	33.1
French Bread	77	26.7	105	36.6
Tortillas	117	40.6	91	31.7
Cheese or Cream	45	15.6	49	17.1
Plantain	29	10.1	16	5.6
Others	26	9.1	18	6.3
<b>Number of Informants</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Question No. 4: What did the children less than six years old had for breakfast yesterday?

Table No. 12

**PERCENTAGE OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN IN AND OUT PROGRAM,  
ACCORDING TO THE FOODS THEY GAVE THEM FOR LUNCH YESTERDAY**

Foods	<u>In Program</u>		<u>Out of Program</u>	
	Qty	%	Qty	%
Beans	149	51.7	87	30.3
Rice	169	68.7	168	58.5
Milk	17	5.9	5	1.7
Eggs	48	16.7	41	14.3
Tortillas	186	64.6	211	43.5
Chicken	25	8.7	39	13.6
Vegetables	38	13.2	56	19.5
Cheese or Cream	48	16.7	59	20.6
Fish or Hit	38	13.2	10	3.5
Vernicelli soup	11	3.8	6	2.1
Others	15	5.2	11	3.8
<b>Number of Informants</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Question No. 4: What did the children less than six years old had for lunch yesterday?

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PERCENTAGE OF INFORMANTS OR MOTHERS OF WEIGHED CHILDREN IN AND OUT OF THE PROGRAM.  
 ACCORDING TO THE FOODS THEY GAVE THEM FOR DINNER YESTERDAY

Foods	In Program		Out of Program	
	Qty	%	Qty	%
Beans	167	57.9	159	55.4
Rice	121	42.0	64	22.3
Milk	69	23.9	40	13.9
Coffee	35	12.2	85	29.6
Eggs	77	26.7	61	21.3
Vegetables	4	1.4	36	12.5
Tortillas	150	52.1	138	48.1
French Bread	15	5.2	29	10.1
Bakery Goods	31	10.7	34	11.8
Cheese or Cream	59	20.5	54	18.8
Plantain	11	3.8	30	10.5
Others	19	6.6	21	7.3
Did not eat anything	2	0.7	8	2.8
Number of informants	288	100.0	287	100.0

Question No. 4: What did the children less than six years old had for dinner yesterday?

Table No. 14

COMPARISON BETWEEN CONDITION OF BENEFITED CHILDREN OF CARITAS  
PROGRAM AND NON BENEFITED CHILDREN, ACCORDING TO THE  
GOMEZ CLASSIFICATION  
(Boys and Girls)

Undernourished table	Beneficiaries		Non Beneficiaries	
	Qty	%	Qty	%
Normals	97	33.7	102	35.6
Undernourished G-1	128	44.4	131	45.6
Undernourished G-2	60	20.8	50	17.4
Undernourished G-3	3	1.1	4	1.4
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Table No. 15

COMPARISON BETWEEN THE NUTRITIONAL CONDITION OF BENEFITED  
CHILDREN OF CARITAS PROGRAM AND NON BENEFICIARIES, BY AGE GROUP,  
ACCORDING TO NCHS STANDARDS

Malnutrition Classification	<u>Beneficiaries</u>		<u>Non Beneficiaries</u>	
	Qty	%	Qty	%
Higher Than + 1 DE	11	3.8	13	4.5
+1 DE and -1 DE	126	43.7	132	46.1
-1 DE and -2 DE	89	30.9	87	30.3
-2 DE and -3 DE	50	17.4	42	14.6
-3 DE and higher	12	4.2	13	4.5
<b>TOTALS</b>	<b>288</b>	<b>100.0</b>	<b>287</b>	<b>100.0</b>

Table No. 16

PREVALENCE OF MALNUTRITION AMONG BOYS AND GIRLS OF  
BENEFITED AND NON BENEFITED FAMILIES, ACCORDING  
TO NCHS STANDARDS

Malnutrition Classification	<u>Beneficiaries</u>		<u>Non Beneficiaries</u>	
	Girls	Boys	Girls	Boys
+3 to + 1 DE	5.8	2.0	5.5	3.5
+1 to- 1 DE	40.1	47.0	42.8	49.2
-1 De to 2 DE	33.3	28.8	33.1	27.5
-2 to -3 DE	16.4	18.3	15.2	14.2
-3 DE to higher	4.4	3.9	3.4	5.6
<b>TOTALS</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>

Table No. 17

PREVALENCE OF MALNUTRITION AMONG BENEFITED CHILDREN BY AGE  
GROUPS, ACCORDING TO NCHS STANDARDS

Group	Normal	-1 DE	- 2 DE	-3 DE	Total	
	%	%	%	%	Qty	%
< than 2 years	43	36.6	14	6.4	93	100.0
From 2 to 4 years	44	29.4	22	4.6	109	100.0
> than 4 years	57	26.7	15.1	1.2	86	100.0

Table No.18

PREVALENCE OF MALNUTRITION AMONG CHILDREN OF NON BENEFITED  
FAMILIES, BY AGE GROUPS ACCORDING TO NCHS STANDARDS

Age groups	<u>Normals</u> %	<u>-1 DE</u> %	<u>-2 DE</u> %	<u>-3 DE</u> %	<u>T o t a l</u> Qty      %	
< 1 year	56.2	29.2	8.3	6.3	48	100.0
1 - 2 years	28.9	44.4	20	6.7	45	100.0
2 -- 4 years	44.0	29.4	22	4.6	109	100.0
Older than 4 years	57.0	26.7	15.1	1.2	86	100.0
<b>TOTALS</b>	100.0	100.0	100.0	100.0	288	100.0

COMPOSITION OF AGE GROUPS IN JUNE 1988 AND CHANGES OF DISTRIBUTION BETWEEN  
 JANUARY AND JUNE 1988 DATA TAKEN ACCORDING TO THE GOMEZ CLASSIFICATION (BOYS)

Age Groups (Years)	Children		Nutritional Condition enero de 1988								Children		Nutritional Condition Junio de 1988							
	Qty	%	Normal		G1		G2		G3		Qty	%	Normal		G1		G2		G3	
			Qty	%	Qty	%	Qty	%	Qty	%			Qty	%	Qty	%	Qty	%	Qty	%
Less than 2	66	100.0	16	24.2	25	37.9	21	31.8	4	6.1	49	100.0	12	24.5	21	42.9	14	28.5	2	4.1
From 2 to <4	74	100.0	16	21.6	31	41.9	23	31.1	4	5.4	86	100.0	23	26.7	46	53.5	15	17.4	2	2.4
More than 4	55	100.0	14	25.5	26	47.3	13	23.6	2	3.6	60	100.0	9	15.0	37	61.7	10	16.6	4	6.7
<b>TOTALS</b>	<b>195</b>	<b>100.0</b>	<b>46</b>	<b>23.6</b>	<b>82</b>	<b>42.1</b>	<b>57</b>	<b>29.2</b>	<b>10</b>	<b>5.1</b>	<b>195</b>	<b>100.0</b>	<b>44</b>	<b>22.6</b>	<b>104</b>	<b>53.3</b>	<b>39</b>	<b>20.0</b>	<b>8</b>	<b>4.1</b>

COMPOSITION OF AGE GROUPS IN JUNE 1988 AND CHANGES MALNUTRITION BETWEEN JANUARY  
AND JUNE 1988, DATA TAKEN ACCORDING TO THE GOMEZ CLASSIFICATION (GIRLS)

Age Groups (Years)	Children		Nutritional Condition Enero de 1988								Children		Nutritional Condition Junio de 1988							
			Normal		G1		G2		G3				Normal		G1		G2		G3	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Less than 2	62	100.0	15	24.2	23	37.1	20	32.3	4	6.4	44	100.0	15	34.1	18	40.9	8	18.2	3	6.8
From 2 to <4	65	100.0	14	21.5	29	44.6	20	30.8	2	3.1	74	100.0	20	27.0	30	40.5	19	25.7	5	6.8
From 4 to <6	69	100.0	21	30.4	27	39.1	18	26.1	3	4.4	78	100.0	20	25.7	31	39.7	21	26.9	6	7.7
<b>TOTALS</b>	<b>196</b>	<b>100.0</b>	<b>50</b>	<b>25.5</b>	<b>79</b>	<b>40.3</b>	<b>58</b>	<b>29.6</b>	<b>9</b>	<b>4.6</b>	<b>196</b>	<b>100.0</b>	<b>55</b>	<b>28.0</b>	<b>79</b>	<b>40.3</b>	<b>48</b>	<b>24.5</b>	<b>14</b>	<b>7.2</b>

**NUTRITIONAL STATE OF BENEFITED CHILDREN ACCORDING TO OCCURRENCE OF INFECTIOUS DISEASES  
DURING THE LAST SIX MONTHS**

Occurrence of Infectious Diseases	<u>Normal</u>		<u>Undernourished</u>						<u>Totals</u>	
	Qty	%	<u>Slight</u>		<u>Moderate</u>		<u>Severe</u>		Qty	%
			Qty	%	Qty	%	Qty	%		
Yes	12	48.0	7	28.0	5	20.0	1	4.0	25	100.0
No	125	47.5	82	31.2	45	17.1	11	4.2	263	100.0
<b>TOTALS</b>	<b>137</b>	<b>47.6</b>	<b>89</b>	<b>30.9</b>	<b>50</b>	<b>17.4</b>	<b>12</b>	<b>4.1</b>	<b>288</b>	<b>100.0</b>

Table No. 22

**NUTRITIONAL STATE OF NON BENEFITED CHILDREN ACCORDING TO THE OCCURRENCE OF INFECTIOUS DISEASES  
DURING THE LAST SIX MONTHS**

Occurrence of Infectious Diseases	<u>Normal</u>		<u>U n d e r n o u r i s h e d</u>						<u>Totals</u>	
	Qty	%	<u>Slight</u>		<u>Moderate</u>		<u>Severe</u>		Qty	%
			Qty	%	Qty	%	Qty	%		
Yes	11	42.3	11	42.3	1	3.9	3	11.5	26	100.0
No	134	51.3	76	29.2	41	15.7	10	3.8	261	100.0
<b>TOTALS</b>	<b>145</b>	<b>50.5</b>	<b>87</b>	<b>30.3</b>	<b>42</b>	<b>14.6</b>	<b>13</b>	<b>4.6</b>	<b>287</b>	<b>100.0</b>

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NUTRITIONAL STATE OF BENEFITED CHILDREN ACCORDING TO OCCURRENCE OF  
DIARRHEA IN THE LAST SIX MONTHS

Occurrence of Diarrhea	Normal		U n d e r n o u r i s h e d				Totals			
	+1DK to-1DK		-1DK to-2DK		+2DK to-3DK		-3DK to more			
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Yes	50	44.2	34	30.1	26	23.0	3	2.7	113	100.0
No	87	49.7	55	31.4	24	13.7	9	5.2	175	100.0
<b>TOTALS</b>	<b>137</b>	<b>47.6</b>	<b>89</b>	<b>30.9</b>	<b>50</b>	<b>17.4</b>	<b>12</b>	<b>4.1</b>	<b>288</b>	<b>100.0</b>

Table No. 24

**NUTRITIONAL STATE OF NON BENEFITED CHILDREN, ACCORDING TO THE OCCURRENCE OF  
DIARRHEA IN THE LAST SIX MONTHS**

Occurrence of Diarrhea	Normal		U n d e r n o u r i s h e d						Totals	
	Qty	%	Slight		Moderate		Severe		Qty	%
			Qty	%	Qty	%	Qty	%		
Yes	71	48.9	45	31.0	22	15.2	7	4.9	145	100.0
No	74	52.1	42	29.6	20	14.1	6	4.2	142	100.0
<b>TOTALS</b>	<b>145</b>	<b>50.5</b>	<b>87</b>	<b>30</b>	<b>42</b>	<b>14.6</b>	<b>13</b>	<b>4.6</b>	<b>287</b>	<b>100.0</b>

Table No. 25

NUTRITIONAL STATE OF CHILDREN ACCORDING TO THE SITUATION FOUND REGARDING  
VACCINATION AMONG BENEFICIARIES OF THE PROGRAM

Completed Vaccination	Normal		U n d e r n o u r i s h e d						Totals	
	Qty	%	Slight		Moderate		severe		Qty	%
			Qty	%	Qty	%	Qty	%	Qty	%
Yes	112	47.5	72	30.5	42	17.8	10	4.2	236	100.0
No	25	48.1	17	32.7	8	15.4	2	3.8	52	100.0
<b>TOTALS</b>	<b>137</b>	<b>47.6</b>	<b>89</b>	<b>30.9</b>	<b>50</b>	<b>17.4</b>	<b>12</b>	<b>4.1</b>	<b>288</b>	<b>100.0</b>

Table No. 26

**NUTRITIONAL STATE ACCORDING THE SITUATION FOUND REGARDING  
VACCINATION AMONG NON BENEFITED CHILDREN**

Complete Vaccination	Normal		U n d e r n o u r i s h e d						Totals	
	Qty	%	Slight		Moderate		Severe		Qty	%
			Qty	%	Qty	%	Qty	%	Qty	%
Yes	115	50.0	74	32.2	30	13.0	11	4.8	230	100.0
No	30	52.6	13	28.8	12	21.1	2	3.5	57	100.0
<b>TOTALS</b>	<b>145</b>	<b>50.5</b>	<b>87</b>	<b>30.3</b>	<b>42</b>	<b>14.6</b>	<b>13</b>	<b>4.6</b>	<b>287</b>	<b>100.0</b>

**NUTRITIONAL STATE ACCORDING EXISTENCE OF LATRINES AMONG BENEFITED  
CHILDREN OF THE PROGRAM**

Existence	<u>Normal</u>		<u>U n d e r n o u r i s h e d</u>						<u>Totals</u>	
	Qty	%	<u>Slight</u>		<u>Moderate</u>		<u>Severe</u>		Qty	%
			Qty	%	Qty	%	Qty	%		
They have	67	33.9	57	33.9	34	20.3	10	5.9	168	100.0
They do not have	49	52.7	31	33.3	12	12.9	1	1.1	93	100.0
<b>TOTALS</b>	<b>116</b>	<b>44.4</b>	<b>88</b>	<b>33.7</b>	<b>46</b>	<b>17.6</b>	<b>11</b>	<b>4.3</b>	<b>261</b>	<b>100.0</b>

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**NUTRITIONAL STATE ACCORDING TO THE EXISTENCE OF LATRINES  
AMONG NON BENEFITED CHILDREN OF THE PROGRAM**

Existence	Normal		U n d e r n o u r i s h e d						Totals	
	Qty	%	Slight Qty	%	Moderate Qty	%	Severe Qty	%	Qty	%
They have	95	48.2	63	31.9	31	15.7	8	4.2	197	100.0
They do not have	30	46.9	23	35.9	8	12.5	3	4.7	64	100.0
<b>TOTALS</b>	<b>125</b>	<b>47.9</b>	<b>86</b>	<b>32.9</b>	<b>39</b>	<b>14.9</b>	<b>11</b>	<b>4.3</b>	<b>261</b>	<b>100.0</b>

Table No. 29

**NUTRITIONAL STATE ACCORDING TO OWNERSHIP OF POTABLE WATER IN AND OUT OF THE DWELLING  
AMONG BENEFITED CHILDREN OF THE PROGRAM**

Ownership	Normal		U n d e r n o u r i s h e d						Totals	
			Slight		Moderate		Severe			
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
They have	44	39.6	49	44.2	12	10.8	6	5.4	111	100.0
They have not	72	48.0	39	26.0	34	22.7	5	3.3	150	100.0
<b>TOTALS</b>	<b>116</b>	<b>44.4</b>	<b>88</b>	<b>33.7</b>	<b>46</b>	<b>17.6</b>	<b>11</b>	<b>4.3</b>	<b>261</b>	<b>100.0</b>

**NUTRITIONAL STATE ACCORDING TO OWNERSHIP OF POTABLE WATER IN AND OUT OF DWELLING  
AMONG NON BENEFITED CHILDREN OF THE PROGRAM**

Ownership	Normal		U n d e r n o u r i s h e d						Totals	
	Qty	%	Slight Qty	%	Moderate Qty	%	Severe Qty	%	Qty	%
They have	63	60.6	17	16.3	21	20.2	3	2.9	104	100.0
They do not have	58	36.9	73	46.5	18	11.5	8	5.1	157	100.0
<b>TOTALS</b>	<b>121</b>	<b>47.9</b>	<b>90</b>	<b>32.9</b>	<b>39</b>	<b>14.9</b>	<b>11</b>	<b>4.3</b>	<b>261</b>	<b>100.0</b>

Table No. 31

## NUTRITIONAL STATE FOUND AMONG BENEFITED CHILDREN OF THE PROGRAM

## ACCORDING TO EXISTENCE OF LATRINES AND POTABLE WATER

Existence	Normal		U n d e r n o u r i s h e d						Totals	
	Qty	%	Slight		Moderate		Severe		Qty	%
			Qty	%	Qty	%	Qty	%		
Have Latrine and Potable Water	31	39.3	32	40.5	11	13.9	5	6.3	79	100.0
Do not have Latrine nor Potable Water	85	46.7	56	30.7	35	19.3	6	3.3	182	100.0
<b>TOTALS</b>	<b>116</b>	<b>44.5</b>	<b>88</b>	<b>33.7</b>	<b>46</b>	<b>17.6</b>	<b>11</b>	<b>4.2</b>	<b>261</b>	<b>100.0</b>

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COMPARISON IN THE NUTRITIONAL STATE OF BENEFITED CHILDREN OF CARITAS  
PROGRAM ACCORDING TO NCHS STANDARDS, BY DIOCESE

Nutritional State	San Salvador		Santa Ana		Sonsonate		San Vicente		Zacatecoluca		San Miguel		Santiago de Maria		Total	
	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
From +2 DE to +1 DE	3	6.7	2	5.0	-	-	-	-	3	7.5	3	7.3	1	5.0	12	4.3
+1 DE to -1 DE	23	51.1	23	57.5	19	46.4	8	20.0	19	47.5	23	56.1	17	42.5	132	47.8
From -1 DE to -2 DE	14	31.1	8	20.0	16	39.0	16	40.0	12	30.0	12	29.3	9	22.5	77	27.9
From -2 DE to -3 DE	5	11.1	4	10.0	5	12.2	10	25.0	6	15.0	3	7.3	9	22.5	42	15.3
From -3 DE	-	-	3	7.5	1	2.4	6	15.0	-	-	-	-	3	7.5	13	4.7
<b>TOTALS</b>	<b>45</b>	<b>100.0</b>	<b>40</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>	<b>40</b>	<b>100.0</b>	<b>40</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>	<b>39</b>	<b>100.0</b>	<b>276</b>	<b>100.0</b>

Consultores en Mercadeo de C. A

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