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EVALUATION OF PL 480 TITLE II
FEEDING PROGRAMS IN HONDURAS

1977

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in Latin America—carried out the responsibilities assigned to the Policy and Programming Specialist.

The efforts of AID personnel, SAPLAN officials, and the personnel of the voluntary agencies CARE and CRS in regard to the assistance rendered in assisting our personnel to carry out their responsibilities are greatly appreciated. The limitations and difficulties encountered in conducting the evaluation are more fully described in the text of the report.

Special recognition is made with reference to the CARE field personnel who accompanied the member of the team through three weeks of activities in the field.

It is our opinion that the level of effort and the time allowed for the study was insufficient, especially in view of the almost complete lack of measurements of indicators of nutritional impact. It is recommended that a greater level of effort be assigned together with a longer period of time for future evaluations whether they are the responsibility of AID/H, the voluntary agencies or SAPLAN. However, if the recommended information system designed to provide data for future evaluations is implemented, it is believed that a more penetrating evaluation will be possible.

We appreciate the opportunity of participating in one aspect of this important program and hope our findings, conclusions and recommendations will benefit the people of Honduras.

Sincerely yours,


Alvin Mayne

November 15, 1977

Mr. Jack Robinson
Director
U.S. AID Mission to Honduras
American Embassy
Tegucigalpa, Honduras

Dear Mr. Robinson:

I have the pleasure of transmitting 5 copies of the final English version of the report entitled "Evaluation of PL 480 Title II Feeding Programs in Honduras." The final report takes into account comments received from SAPLAN of the Government of Honduras, and the VolAgS of CARE, CRS and CARITAS. The report was prepared in accordance with the terms of Contract AID la-C-1202 - Honduras, as amended.

The outline of the report follows the five point Scope of Work as presented in Amendment No. 1 to the Contract, namely:

- I - Introduction: Objectives of the Study and Procedures Followed
- II - Review of the Scope of Feeding Programs in Honduras
- III - Evaluation of the Relative Impact on Health and Nutritional Status of Recipients of PL 480 Title II Feeding Programs
- IV - Evaluation of the Efficiency of each Category of the Feeding Programs
- V - Baseline Information and the Development of a Simplified Information System to Enable Future Evaluations
- VI - Recommendations With Respect to Changes in VolAg Operations and AID/H Programming of PL 480 Title II Feeding Programs

The following personnel participated in this evaluation: Mr. Alvin Mayne, President of Clapp and Mayne, Inc.; Dr. Esther Seijo de Zayas, Project Director, Nutritionist and Former Chairman of the Home Economics Department of Puerto Rico; Mrs. María V. Cruz de Lara and Miss Olga Zaragoza, Nutrition Planners; Mr. Héctor Bayrón, Statistician and Agronomist, with the advice or counselling of Mrs. Marta C. Velázquez, Specialist in Supplementary Feeding Programs; and Dr. Elizabeth Sánchez, Director of Public Health Nutrition Program, University of Puerto Rico School of Medicine, both the latter also Nutritionists; and Dr. Ishver Bangdiwala, Sampling Expert of Clapp and Mayne, Inc. Mr. Anthony Ormasa, who had been a member of USAID Missions in many countries—20 years

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I. INTRODUCTION: OBJECTIVES OF STUDY AND PROCEDURES FOLLOWED

A. Introduction

The AID Mission in Honduras in its interest to further efforts for the nutritional improvement of vulnerable groups of Honduras population as well as to increase the effectiveness of the Nutrition Programs being carried out, assigned Clapp and Mayne, Inc. the responsibility of evaluating the impact of the feeding programs operating under PL 480 Title II. It likewise requested that possible indicators for the evaluation of the nutrition impact be prepared or at least suggested in order to assure periodic, continuous evaluation of the feeding programs in the future.

The emphasis of this particular evaluation has been on the nutritional impact of the PL 480 Feeding Programs and long run policy and programming aspects of such feeding programs rather than with the details involved in the administration of the feeding programs; shipments received, storage facilities, transportation to distribution centers and similar administrative information.

B. Objectives

The objectives of the study are given by the Scope of Work in Amendment 1 of the Contract. However, it should be pointed out that the members of the Clapp and Mayne, Inc. staff had available to them the original Scope of Work (Appendix A) while they were in Honduras. The Scope of Work of the Amendment is as follows:

1. Review the scope of feeding programs in Honduras in terms of beneficiaries, nature of programs, the programs intended results, the executing organizations, relationships to national nutritional problems and objectives and to other problems and objectives.

2. Evaluate relative impact on the health and nutritional status of recipients of the PL 480 Title II feeding programs including MCH, Food for Work, School Feeding and Other Child Feeding.

3. Evaluate the efficiency of each category of feeding program of each VolAg and/or GOH agency in terms of maximizing benefit to recipients with given quantities of food and make specific recommendations for improving efficiency.

4. Work with Voluntary Agencies to establish base line data (e.g. heights, weights by age and sex, in various programs versus control groups not assisted) and to establish a simplified system of periodically evaluating health and nutrition impact which could be used by GOH, VolAg and USAID personnel.

5. Upon completion of 2 and 3 above, make detailed recommendations, based on contractor's judgment, as to necessary changes in operations of VolAg programs, increasing or decreasing specific feeding programs over the next 5 years and recommending how GOH might assume greater responsibility for specific programs.^{1/}

C. Procedures Utilized in Conducting the Study

During the initial stage of the study, Mr. Mayre and Dr. Zayas contacted, in Honduras, officials of the AID Mission and representatives at national level of the different government agencies involved in

^{1/} For further amplification of this component of the Scope of Work see Memorandum from Director AID/H entitled PL 480 Title II in Honduras: Tentative Guidance (See Appendix B)

supplementary feeding programs as well as directors of voluntary agencies CARE and CRS. Information was obtained as to the existence of studies, reports and other required documents. Requests for these were made of both voluntary agencies and government agencies. Plans were also worked out for the work of the nutrition team (Lara, Zaragoza and Bayrón).

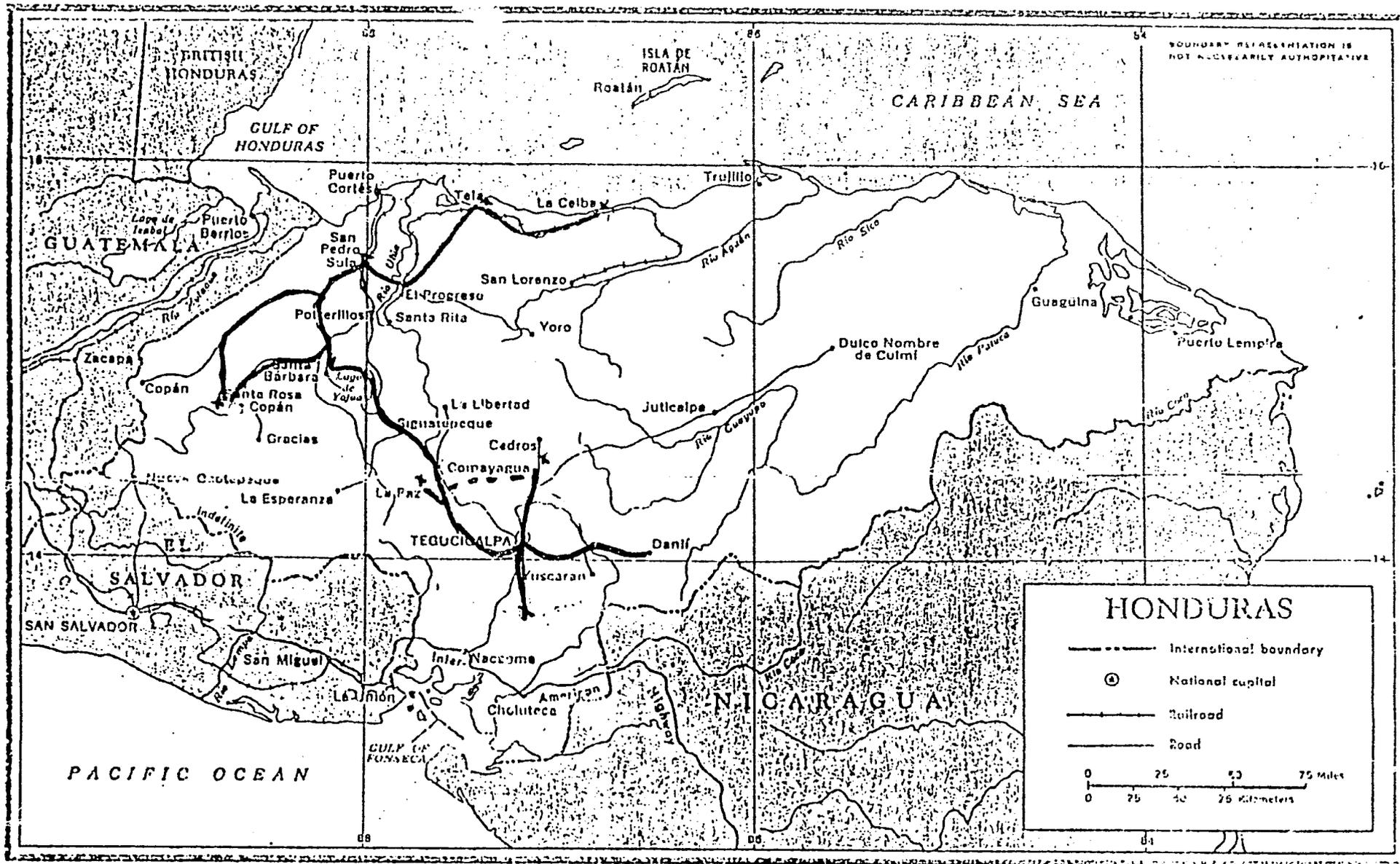
During 25 days in Honduras the work team visited programs in 9 different departments in the various urban and rural sections of the country including visits to general and local offices, parishes, warehouses, feeding programs, interviews with government officials, community leaders and housewives' clubs. Table 1 and accompanying map detail the extent of the different visits made by the team which involved 124 facilities.

Activities carried out included interviews with both officials and voluntary workers, and participants in distribution centers with ongoing programs and personal observation regarding: the acceptance of foods; the ways of serving; food handling procedures; height; weight; and other clinical measures that were recorded, although to a limited extent. The data shown in this report were obtained from information in available records, questionnaires and actual measurements made by the team. Other direct and indirect measures of acceptability were obtained when possible through: the comparison of attendance at different periods; questionnaires to parents; questionnaires addressed to teachers; nutritional analysis of food values of foods distributed; and personal conversation with people in the communities. The various feeding programs were observed in terms of acceptance, nature of group served, and efforts required.

Table 1

Total Number of Feeding Projects, Storerooms,
Offices, Parishes, Clubs and Other Centers
Visited from May 5-24, 1977

Day Care Centers	5
Recuperation Centers (SERN)	8
Schools and School Feeding Projects	14
Health Centers	2
MCH - Pregnant and Lactating Groups	6
Pre-school Feeding Centers	11
Food for Work Projects	8
Storerooms	40
Parishes	10
Women's Clubs	2
Local Offices - CARE	5
Local Offices - CARITAS	6
Hospitals	2
Orphanages	1



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The plan and schedule for the study included 9 Departments. Attached is a list of places visited. Different feeding programs in rural and urban zones were visited.

5

Municipalities and "Barrios" Visited

1. Atlántida - Tela - Tela, Aldea Paujiles, Colonia Flor de Guano,
Bo. Hicaque y Bo. Arizona
La Ceiba - La Ceiba y Espósito
2. Comayagua - Comayagua - Comayagua y Bo. El Volcán
Ajuterique - Ajuterique y Bo. Los Angeles
3. Copán - Santa Rosa de Copán - Santa Rosa, El Rosario, Santa Rita
4. Cortés - San Pedro Sula - San Pedro Sula, Coroza Arriba y Tepeaca
Choloma - Choloma, La Justosa, La Nueva Justosa,
Aldea Nisperales
5. Choluteca - Pespire - Pespire, El Portillo, El Tablado, San Felipe
6. El Paraíso - Danlí Danlí, y Bo. Juteapa
Jacaleapa - Jacaleapa
Morocelí - Morocelí, Bo. Suyate y Bo. Limones
7. Francisco
Morazán - Sabana Grande - Sabana Grande, Suyapa, Bo. Buenaventura
y El Porvenir
Tegucigalpa - Tegucigalpa, Santa Cruz Arriba
8. La Paz - La Paz - Bo. San José
9. Santa
Barbara - Quimistán - Quimistán
Santa Barbara - Pueblo Nuevo, Bo. Camalote y Bo. Charmeca

D. Procedure for Selecting Areas to be Visited, Samples and Other Data

On the basis of the time available and due to the difficulty of reaching too distant areas, it was decided to restrict the evaluation study to visits in 9 of the 18 departments of Honduras. A request was made from the voluntary agencies to submit a list of all projects in these areas which were active in 1977 classified by location and by the nature of the project for each of the departments previously selected. It was hoped that with this information a probability sample could be selected to determine which projects would be visited. This information could not be obtained. However, as a substitute, samples were selected through a randomized procedure of the list of projects which were to be on the proposed route specified for the purpose of visiting CARE and CARITAS projects.^{1/} Emphasis was placed on obtaining a random sample of centers to be visited for several reasons: (1) the observations and measurements were to be used to establish base line information to be used for the present and future evaluations; and (2) to avoid Potemkin Village showcases.^{2/}

In order to obtain control samples, especially in connection with the school feeding programs, schools near those selected in the school feeding samples which did not have any feeding projects, were identified.

As pointed out in the transmittal letter, the program of visits made according to the random selection was carried out, to a great extent, with the assistance of CARE.

^{1/} See Appendix C for original sample selection.

^{2/} Because of the use of this randomized selection procedure, the team only encountered one center where the stage had been obviously set for the visit by advance notice.

E. General Difficulties Encountered in Attempting to Meet Plan of Work

Following the instructions given by CARITAS to contact the parish in each area, visits were made to all parishes selected at random from lists submitted. However, it was not possible to follow the itinerary in terms of CARITAS; it was possible to visit only 2 projects.

As will be seen later in this report, the greatest difficulty encountered which unquestionably had an influence on the effectiveness of the evaluation, was the unavailability of the information requested and the lack of complete, correct, updated records and reports. While occasionally records were available they were not complete or were not kept on a regular basis. Sometimes information was not provided in the form requested; in other instances records were available but were not provided by the agency or organization upon request. In some instances it was stated that the particular document was for the internal use of the agency; or the statement was made that the information contained in the report was not useful to the working group. In still other instances the data provided by one agency did not agree with the data covering the same subject and time that had been made available in some other reports. Specific recommendations are made later on as part of observations and recommendations.

Regularly well-kept records, with uniform or comparable systems of reporting and up-to-date information are indispensable for effective and meaningful evaluation of the impact of a program.

II. REVIEW OF SCOPE OF FEEDING PROGRAMS IN HONDURAS

A. General Background

Honduras has, at present, more than 2.8 million inhabitants. It has a predominantly rural population (71% of the total), a low per capita income (\$225 per year) and an illiterate population amounting to 52.5 percent of the total population.

With an annual rate of growth of more than 3.5% (EDNH 1972), population is expected to duplicate in less than 20 years. The maternal mortality rate is quite high being 2.7 per 1000; infant mortality rate is also high with a rate of 117.6 per 1000; the mortality rate in the 1-4 age group amounts to 20.7 per 1000. Life expectancy is reported to be 44 years.

A total of 41% of all deaths reported are among children under 5 years of age—of this 11.3% are from infectious diseases, 7.6% from diarrhea, and 11.3% from respiratory diseases. These three diseases, which account for 40% of deaths in this age group, are considered preventable.

Information obtained from the Maternal-Child Division of the Ministry of Health giving the principal causes of death in 1972 is shown in Table 2.

Although malnutrition as such does not appear as a cause of death, it is well known from nutritional research and observation that primary and secondary malnutrition in children is closely related to infections. Both factors (malnutrition and infections), in all probability, are jointly responsible for retarded growth and development.

A National Nutrition Survey in 1966 indicated that 72.5% of this group suffers from some degree of protein-calories malnutrition, 2.3%

Table 2

Causes of Death of Children Age 1-4 Years
1972

<u>Cause</u>	<u>Percent of the Total Deaths of Children 1-4 Years Old</u>
Diarrhea and enteritis	21.9%
Whooping cough	6.9%
Other parasites and infectious diseases	5.2%
Baccillar dysentery and amebiasis	4.9%
Pneumonia	4.8%
Other diseases of the digestive system	1.0%

Source: Maternal-Child Division of the Ministry of Health,
Honduras

suffering from severe malnutrition (3rd degree) and 27.2% from 2nd degree malnutrition (Table 2a). This nutrition survey also indicated the prevalence of vitamin A, riboflavin, iron and iodine deficiencies which makes the protein-calorie malnutrition condition even more severe. This situation is even further aggravated since only 68.6% of the population has access to medical services.

Although the above survey is eleven years old, there is evidence that the condition of malnutrition has not been eradicated among children. For example, 78% of the 742 children of preschool age which were covered in this study were of an inadequate weight for their age. In addition, 36% were suffering from either severe or moderately severe malnutrition based on this measure.

Because of the high fertility rate of 3.5% ^{1/}, it is expected that the number of children will remain a high proportion of the population for a number of years to come. For example, the number of children per female averages 7.5, with an average of 5.3 in the urban areas and 8.7 in the rural areas.

Such a high rate of fertility naturally implies pregnancy and birth at extreme ages of the fertility period in woman and pregnancies at very short intervals.

There is sufficient evidence to indicate that the child is to be considered really dependent on the mother and that deficient state of nutrition in the pregnant mother naturally affects unfavorably both mother and child. Good nutrition before and during pregnancy means better health for both mother and child, less risks of pregnancy complications, safer

^{1/} National Demographic Survey

Table 2a

Nutritional Status^{1/} of Children in Honduras Under 6 Years of Age
 As Compared to Corresponding Children Weighed in
 Feeding Centers in Clapp and Mayne, Inc. Study^{2/} -
 Honduras C.A. - 1977

<u>Honduras Population for Children Under 6 Years of Age</u>			<u>Children Weighed Which Fail In Same Category</u>	
<u>Status</u>	<u>No.</u>	<u>Percent</u>	<u>No.</u>	<u>Percent</u>
Total population under 6 yrs.	<u>564,316</u>	<u>100</u>	<u>742</u>	<u>100</u>
<u>Nutritional Status</u>				
Normal	155,187	27.5%	143	19.3%
Malnourished	409,129	72.5%	599	80.7%
Degree:				
1st		43.0%		45.3%
2nd		27.2%		29.5%
3rd		2.3%		5.9%

^{1/} National Nutrition Study, 1966

^{2/} Data on Table 12 not including school children.

birth of child and better probabilities for lactation. This in itself justifies giving great importance to feeding programs for lactating and pregnant women. If it is further recognized that there are greater probabilities of a healthy and better developed child being born to mothers with good nutritional status and that the rate of premature births and infant mortality decreases, the importance of good nutrition both for mother and child is further emphasized.

In summarizing the picture regarding nutritional conditions, at present and in the future, it is necessary to link the agricultural situation of a country, particularly with respect to production of food for the use by its own population which has a high nutrient level.

While land is not a limiting factor in Honduras, agricultural productivity is probably too low to expect self-sufficiency in terms of the required nutritional levels for some years to come.

B. Feeding Programs

1. Feeding Programs Related to Administrative Structure

There are various feeding programs currently being carried out in Honduras. These include the AID PL 480 Title II programs administered by the voluntary agencies, CARE and CRS, the program financed by the German Government, the World Food Program of the United Nations and other smaller ones including a mill donation by the European Economic Community. As background information, general descriptions of these programs are set below.

a. CARE

The CARE program operates under agreement with the Ministries of Health and Education. The principal components of the program can be

illustrated by the 1977 program plan which provided for the following number of authorized beneficiaries by the categories listed:

Maternal and Child Health	
Maternal and Child Health	33,000
Preschool Children	27,000
Other Child Feeding	4,500
School Feeding	180,000
Economic Development	
Workers	3,500
Dependents	<u>14,000</u>
Total	<u>262,000</u>

The food is provided through health centers for pregnant and lactating mothers and children of the Ministry of Public Health, feeding centers ("comedores infantiles") operated by the National Social Welfare Board, day care centers organized by the Patronatos del Niño, recuperation centers (SERN) organized by the Health Ministry and by the National Social Welfare Board to treat children with severe malnutrition, government hospitals, day care centers, school feeding centers and to community groups participating in the food for work activities. The latter are an outgrowth of emergency assistance provided to offset the effects of Hurricane Fifi which was carried out principally through the National Campesino Union (ANACH).

CARE is presently attempting to negotiate an agreement with the Ministry of Government (Gobernación) to place the food for work activities

on a more permanent basis with official and financial government support.

In this respect the Ministries of Health and Education provide to CARE \$53,000 and \$60,000, respectively, as their support to the local transportation, storage and administrative costs related to the program. Additionally, participating institutions and groups are required to provide transportation of the commodities from distribution centers.

The CARE activities are not limited to the food programs provided under the AID program. As part of its nutrition program strategy it is carrying out a number of other activities from its own resources which serve to supplement or compliment the feeding services.

To mention a few examples, efforts are being made to reduce incidence of water-borne diseases through provision of potable water supplies in rural communities, and to improve health delivery systems through training of auxiliary nurses and paramedical personnel.

The CARE activities outlined above are carried out directly and/or through counterpart government agencies. The programming is developed in consultation with the government agencies concerned. In some instances such as the Ministry of Public Health, the role of the government entity appears to be principally to approve and concur in CARE program level proposals.

The nature of the administration of the programs varies. In the case of the school feeding activities the Ministry of Education has established the SNAAN (National Service for Feeding and Assistance to Children) to administer the activities. There is no comparable office in the Ministry of Health to direct and supervise feeding activities of the Ministry field institutions.

Thus, CARE deals directly with the Ministry's institutions at field level, both regional and local. Applications for assistance are directly submitted to CARE, through one of its ten regional offices and approved directly by CARE. Similarly, there does not exist, at present, a central organization for Food for Work activities which in many instances are handled through local government officials.

b. Catholic Relief Services (CRS)

The Catholic Relief Services program operates under an agreement with the Ministry of Public Health. It is a more limited program in terms of number of recipients concentrating on maternal and child health and Food for Work activities. The breakdown for 1977 is as follows:

Maternal and Child Health	30,000
Food for Work	25,000

The Honduran counterpart agency for CRS is CARITAS, a non-governmental organization. The CARITAS organization in addition to its central office has six Dioceses offices which exercise direction and supervision of activities at the parish level. The central office establishes the program levels for each of the Dioceses which in turn, in consultation with the Parish level, determine the specific groups to be provided food.

The Maternal and Child Health activities are carried out through Farmers' Housewives Clubs. Those clubs, established with the assistance of promoters, are supposed to assume responsibility for the food distribution activities. It was informed that there have been 900 such clubs participating in the MCH program

These clubs are affiliated with the Diocesan offices and offer training in a variety of subject matters.^{1/} Illustrative of such training are such topics as:

Women and Social Change

Family Integration

Dignity of Women

Responsible Paternity

Organization and Objectives of Housewives' Clubs

Health and Hygiene

Home Improvements

Justice, Liberty and Marriage

Moral Formation of Children

Child Care

Manual Arts

Although many of these clubs initially start with food services, the experience gained in food activities enables them to undertake other cooperative projects.

Distribution of food for Food for Work activities is carried out by directors appointed by the community for specific development activities. These directors are responsible for distributing food to workers and their dependents.

^{1/} In San Pedro Sula the team was informed that CARITAS was again trying to meet with the mothers to attempt to reorganize such clubs.

The relationship of CRS to the government is minimal consisting principally of receiving \$50,000 for transportation, warehousing and other local costs and keeping the government informed periodically of its activities.

The above described activities of CARE and CRS can be classified as (1) feeding programs for pregnant and lactating mothers and preschool children; (2) feeding programs for school children; (3) feeding programs for adults; and (4) food for institutions.

c. German Government Food Program

The Government of Germany is providing food assistance in the form of corn and beans through a joint Commission, the Honduran-German Commission of Food for Work.

In contrast to the CARE and CARITAS program which provide U.S. produced foods, this program also purchases locally produced food for distribution to the beneficiaries.

The daily ration is 6 lbs. of corn and three of beans.

A staff member of CONSUPLANE has been appointed to coordinate the programs of the Commission.

The cost of the program for 1976 was 3.5 million Lempiras.

d. World Food Program

The WFP consists of four principal projects: (a) colonization of the Bajo Aguan area; (b) rural development and rehabilitation through self-help; (c) assistance to flood victims and rural resettlement; and (d) rehabilitation following drought. The total value of the program amounts to \$4,323,300.

e. European Economic Community

The Ministry of Education is about to receive 500 tons of milk donated by the European Economic Community which is to be utilized in its school feeding programs. The Administrator of SNAAN did not know whether this was a one time grant or a continuing contribution since arrangements had been made by CONSUPLANE.

f. SAPLAN

Although not involved in the direct operation of supplementary feeding programs, SAPLAN has the potential of affecting the nature of such programs in the future. Accordingly, it is included in this section of the report so it may be taken into consideration in determining the future appropriate roles of the Honduran Government in supplementing feeding programs.

SAPLAN derives its name from Analysis and Planning of Food and Nutrition (Sistema Análisis y Planificación de la Alimentación y Nutrición).

SAPLAN is composed of representatives of the Ministries of Education, Public Health, and Natural Resources, the National Social Welfare Board, and the National Agrarian Institute. The Technical Secretariat of the Superior Council for Economic Planning acts as Coordinator. These personnel are expected to work almost full time on SAPLAN activities. Additionally, SAPLAN will have a small additional professional staff of 2 economists, demographic statistician, and 2 nutritionists as well as supporting administrative personnel. Additionally, it receives technical assistance from INCAP, Guatemala.

SAPLAN was created in February 1976 and is a multi-sector organization

to concentrate on the nutrition problem in recognition that the solution of nutritional problems required inputs not only from health but other sectors such as agriculture and education.

In a sense SAPIAN can be viewed as the nutrition planning body for CONSUPLANE. As such it will have a role in the future in the approval of all programs having a nutritional impact of any of the agencies of government.

The functions of SAPIAN are:

1. To analyze and interpret the existing information.
2. To establish a nutritional review and information system.
3. To evaluate the policies, plans, programs and projects existing and proposed on aspects of nourishment and nutrition.
 - a. Make an inventory of policies, plans, programs and projects existing and proposed on aspects of food and nutrition
 - b. Study and analyze them.
 - c. Select those policies, plans, programs and projects of major effect in relation to cost-benefit, cost-effective, and cost-efficient.
4. Propose changes and/or alternatives
 - a. Determine modifications or alternatives
 - b. Develop plans, programs and projects
 - c. Present for discussion those plans, programs to concerned organizations
5. Formulate a national Plan for Food and Nutrition

6. Identify and channel the sources of finances for priority sectoral projects.

SAPIAN has an ambitious work program in which it is engaged at the present time and which will test its capabilities. These are coordination of the implementation of the AID nutritional loan and development of Food and Nutrition Plan for the Period 79-83, the latter to be completed by July 1978. As part of the plan development it expects to make an evaluation of the supplementary feeding programs in the country. A work plan for this study is being developed currently.

2. Review of Feeding Programs in Terms of Substantive Content and General Field Observations

a. Recuperation Centers (SERN) with the Cooperation of the Ministry of Health Services and Social Service Board (Junta de Bienestar Social)

The Nutrition Department and the Maternal and Child Division of the Ministry of Health have been operating a maternal-child program which has been underway with the assistance of AID since 1968. The Nutrition Department has a director, 2 nutritionists, and 12 nutrition auxiliaries at the operational level. These auxiliaries in nutrition who are stationed in the regions supervise the technical and administrative responsibility of the SERN or recuperation centers. The regional offices are likewise responsible for storage and transportation of foods.

SERN has a special budgetary assignment from the Health Ministry and it is responsible for the organization and development of the recuperation centers. There are also some SERN centers under the Junta de Bienestar Social. However, the Ministry of Health is expected to be responsible for the technical supervision of these centers.

The immediate objective of the SERN or recuperation centers is to improve the nutritional condition of children with severe malnutrition (2nd or 3rd degree on the Gómez Scale) within a period of not more than 4 months. Simultaneously, they are expected to improve feeding and health habits of the children and educate mothers in order to insure that they will be able to take better care of the children within their resources once the child is released from the center. Each child is supposed to remain at the center for the entire day and receive three meals and two snacks.^{1/}

From information available, 10 SERN centers under the Ministry of Health are in operation at present with a total of 300 authorized enrollment. Actually, some of the centers visited only had an enrollment of 19-25 instead of the authorized 30 children (Table 3).

Each center receives an average of 500 lempiras per month for food and cleaning materials. The annual budget reported to be assigned for each center is for a total of 11,600 lempiras.

In addition to the budget assigned by the agency, each SERN receives every two months 300 lbs. of milk as well as other foods from CARE. If such amount is regularly received and distributed only to the authorized number of children it would be equivalent of three glasses of milk per child per day.

It is the responsibility of the Nutrition Department of the Ministry of Health to organize and establish standards and procedures for the education and recuperation services for undernourished children in the country. These standards have been established but are not necessarily

^{1/} See Appendix D for norms established for SERN.

Table 3

Authorized Participants and Actual Registration
at Seven Recuperation Centers (SERN) May 1977

<u>Recuperation Center</u>	<u>Enrollment Authorized</u>	<u>Attendance Day Visited</u>	<u>Percent</u>
Cortés			
Cesamo S.P.S.	25	19	76%
Santa Bárbara	20	19	95%
La Paz			
San José	38	23	60%
Comayagua	35	25	71%
Choluteca			
Pespire	50	30	60%
El Tablado, Pespire	28	21	75%
El Paraíso			
Danli	<u>33</u>	<u>21</u>	<u>63%</u>
Total	229	158	69%

Source: Field Team of Clapp and Mayne, Inc.

followed. Educational activities are supposed to be required for each of these centers. However, no education activity was observed in the visits made by the field team to different centers. In only a few instances was there some evidence of interest in an educational program as evidenced by the display of educational materials.

In addition to the 10 recuperation centers under the direct administrative responsibility of SERN, there are 21 recuperation centers administratively under the Social Welfare Board (Junta de Bienestar Social) with an attendance of 885 children. These centers are supposed to work in the same manner as those under the Ministry of Health.

All recuperation centers are supposed to receive medical assistance from the Ministry of Health. The selection and referral of children as well as the decision to discontinue attendance is supposed to be done by medical determination. No available medical information was found in the centers. However, records were found as to when the center referred a child for medical attention because of a specific problem. No information is received back at the center which would help in the care to be given to the child.

Full meals are served at SERN centers and instances were observed of very good (Table 26) nutritional selection of foods including carrots, greens and other nutritious food. Menus received are prepared by the Nutrition Department, but there was no evidence that they are actually being used.

Very valuable voluntary help is received at the centers from mothers in order to prepare and serve food, although much better use could be made.

of these resources if the workers were adequately trained. For example, it was observed that food was removed too quickly from the tables.

It was obvious that there is a great need for the training of employees and voluntary workers both in terms of basic nutrition principles as well as in food purchasing, food handling, food preparation and educational activities to be carried out with the children.

Apparently, at times the same recuperation center serves preschool children and pregnant and lactating mothers. In Tegucigalpa, one center, prepared a tortilla or a sandwich with some other food supplement for children. On the day of the visit several hundreds of these were prepared by voluntary workers at the recuperation center and transported to several places in the community where the snack was served with a glass of WSB which was prepared and served by the voluntary workers at the feeding sites—not at SERN.

b. MCH Centers for Lactating and Pregnant Women

These centers serve one glass of milk to pregnant and lactating women during weekdays. Many of these centers apparently work together with the "comedores infantiles" or feeding centers for preschool children where a glass of milk or one of the cereals received were also distributed. Other foods are also available paid for by voluntary contributions or fund raising activities. The number of pregnant and lactating mothers who were attending the centers visited was very limited.

Information as to how many of these centers are in operation, the enrollment of pregnant and lactating mothers, was not readily available although they are reported jointly with preschool groups as having a total authorized enrollment of 20,000.

Although no copies of the agreements could be obtained, information was received that such operating agreements do exist. By means of such agreements the Ministry of Health subsidizes the voluntary agencies with 100,000 lempiras.

c. Preschool Feeding Centers (Comedores Infantiles)

In addition to the two programs already described, the Social Welfare Board participates in the activities of a number of preschool children feeding centers for children under 6 years of age. As in the MCH center a glass of milk or cereal is provided every day. Other foods may be included as a result of donations. At times the drink is prepared in the recuperation center or where the school snack is prepared. This program depends to a great extent on the voluntary work of the community. It is reported that children in these programs receive medical attention and that educational activities are carried out. Attendance was only 42% of the authorized number (Table 4).

d. Day Care Centers

These are operated primarily under the jurisdiction of the Ministry of Labor. It was reported to the Team that 14 day care centers are being operated for children of workers. At these centers, children receive three meals and two snacks a day for five days a week. They remain there all through the day. Children are admitted up to 6 years of age. Besides food provided by voluntary agencies, the Ministry of Labor and private organizations participate. One of the centers visited had 240 children registered. It received 2,716 lempiras per month for food, cleaning materials and other expenses. One center had 19 employees, 3

Table 4

Comparison of Authorized Enrollment and Attendance
in May 1977 at 7 Pre-School Children
and Lactating Centers

<u>Centers</u>	<u>Enrollment</u>	<u>Attendance</u>	<u>Difference</u>	<u>Percent Attendance</u>
Cortés				
Nuevo Justoso	70	30	-40	42%
Santa Bárbara				
Pueblo Nuevo	98	26	-72	26%
Atlántida				
Paujiles, Tela	57	37	-20	64%
Satélite, Ceiba	68	35	-33	51%
La Paz				
San José	<u>40</u>	<u>14</u>	<u>26</u>	<u>35%</u>
Total	<u>333</u>	<u>142</u>	<u>191</u>	<u>42.5%</u>

teachers, and one auxiliary nurse. A doctor visits the center every day for a number of hours. Another had 148 children and 23 adults. Hemoglobin values were obtained from one of these centers from the records kept by the nurse (See Table 9). At times INCAP records for weight were maintained but no use was made of the very valuable information provided in these records.

e. School Feeding Programs

Honduras has 4,245 primary schools with 550,000 students. The present authorized enrollment in the feeding program for PL 480 Title II Feeding Programs is 180,000, or only 33% of estimated number of school children. SNAAN or National Service for Feeding and Assistance to Children is responsible for distributing the food to the schools. Food is delivered to the area only twice in the school year. The school and community are responsible for seeing that it reaches the particular schools which are served where it was left. For example, food for 6 or more schools is left at one school and the surrounding schools must see to it that the amount assigned to their unit is transported. In observed areas, food for other centers was still waiting long after initial distribution for transportation to the units.

School feeding programs must be considered not only as supplementary programs, but even more so as educational programs. School feeding is meant to improve nutritional deficiencies, especially with foods which will provide not only calories and proteins but also vitamins and minerals which the child needs. Better feeding of the child today should not only help in better attendance and better productivity but should also help to

build better fed citizens for tomorrow helping to improve the food habits of the family at home. Schools with and without feeding programs were visited and interviews held with teachers.

It must be emphasized that, at present, school feeding in Honduras is limited to a snack of WSB, milk or both, usually served at mid-morning. It is served either warm or cold. Children contribute by bringing their own sugar and container in which he or she will be served and sometimes they may bring a piece of wood for a fire when necessary. Storage conditions in the storerooms visited were inadequate.

f. Food for Work Projects

The Food for Work program in Honduras, under the auspices of both CARE and CARITAS, attempts to integrate the people into a self-help effort in their respective communities. The objective is to carry out felt needs in the community by the people themselves. It also aims to provide an opportunity for better nutrition not only of the worker but of the family as a whole by providing specific amounts of foods per family per day of work. In both CARE and CARITAS it is necessary that a request be received for each particular project such as for building of a road, a community center, a school or any other such activity before food is allocated (Table 5). The program has been extended to include projects involving the getting together for producing a source of income for a group such as the making of specific articles for sale or food production or home improvement. The community organizes itself and a chairman is elected who must be responsible for requesting the food, keeping the records of work done and food delivery. An agreement is reached between

Table 5

Food for Work Projects CARE and Number of Families,
Work Days, Work Hours, and Value of Work Done

Item	Year	
	1975-76 ^{1/}	1976-77 ^{2/}
Number of Families	42,091	18,038
Number of work days	252,546	108,228
Number men work hours	2,020,368	865,824
Value of work (lempiras)	757,638	324,684
Total number beneficiaries	---	90,190
Finished Projects:		
Homes	425	175
Schools	25	14
Bridges	5	4
Storage Places	4	2
Latrins	219	150
Child Feeding Centers	4	5
Storage Tanks	3	2
Fish Ponds	2	2
Roads/built, kms.	325	125
Water Tanks	10	5
Road Improvement, kms.	155	38
Improvement Streets, kms.	15	5
Drainage	1	1
Vegetable Garden	125	38
Food Products (Other)	75	192

^{1/} July 1975 to September 1976 (14 months)

^{2/} October 1976 to March 1977 (7 months)

Source: CARE

the voluntary agency and the work group. Specific guides and norms are established. CARE is supposed to provide a maximum of 73.5 lbs. of food per person per month on the basis of 50 hours of work. CARITAS has set a maximum of 50 lbs. CARITAS not only stimulates projects among men but also among women through women's clubs.

It was observed, however, that the actual distribution of food was not really on the basis of quota assigned but more in terms of whatever food was available in the storage room at the time the groups came to claim the foods. The food allotments were not always handed in accordance with terms previously agreed upon. For example, Table 6 summarizes the amount of food actually received by four different groups of workers. In all instances the amount of food was much too little.

As reported by Catholic Relief Services to AID, the number of recipients on the Food for Work program was 41,000 for December 1976 and 1,650 for January 1977 (Table 7). CARE reported 42,091 families for 1975-76 and 18,038 for 1976-77 (Table 5).

Each worker had to provide whatever container he had available for storing and transporting to his home the amount of food he had a right to receive. There were no standards or minimum requirements for this procedure.

g. Food for Hospitals and Institutions

Voluntary agencies provide food to hospitals and institutions where there is a large group of mothers and preschool children to be cared for. Two of these hospitals were visited: Hospital Leonardo Martínez at San Pedro Sula and Hospital Materno-Infantil at Tegucigalpa, and the CESAMO Suazo Health Center.

Table 6

**Comparison of Planned Food Allotment and Amount
Actually Received in Four CARITAS Food for Work Programs**

	Women's Group			Men's Groups
	I	II	III	
Total number of days worked by group	225	90	300	104
Number of persons participating	17	6	8	14
Food they had a right to on the basis of agreement	850 lbs	300 lbs	400 lbs	520 lbs
Food actually received by group:				
Corn	20	--	15	25
Wheat	100	50	50	100
CSM	100	50	50	100
Rice	20	20	15	25
Legume	20	20	15	25
Sugar	20	20	--	--
Salt	20	10	10	25
Vegetable oil	<u>15.4</u>	<u>15.4</u>	<u>15.4</u>	<u>15.4</u>
Total amount of food actually received by families	<u>315.4</u>	<u>185.4</u>	<u>170.4</u>	<u>315.4</u>

Source: CARITAS office in Tela, April 1977

Table 7

Number of Recipients Reached Monthly through Food
for Work Program and Maternal and Child Health Centers
Caritas, Honduras, C.A. 1976 and 1977^{1/}

	<u>Month</u>	<u>FFW Numbers Of recipients</u>	<u>Vasonutritional Maternal and Child Health Centers</u>
<u>1976</u>	January	2,250	22,294
	February	2,675	22,707
	March ^{2/}	7,837	22,378
	April	13,000	22,132
	May	29,265	28,400
	June	48,000	26,016
	July	25,550	24,023
	August ^{2/}	28,585	22,532
	September	31,620	21,041
	October	25,500	33,000
	November	12,245	23,650
	December	41,000	12,500
	Average 1976	22,294	23,389
<u>1977</u>			
	January	1,650	24,500
	February	24,130	20,900
	March	24,000	3,400
	Average (3 months)	16,593	16,267

^{1/} For first three (3) months of 1977
^{2/} Estimated

SOURCE: Report submitted by CARITAS.

They receive non-fat dry milk solids, WSB, bulgur, oil, wheat and legumes for all the patients including those in maternity and children wards. However, all employees also receive these foods for at least part of one meal. Menu preparation is the responsibility of a Catholic sister in one instance and a dietitian graduated from Mexico in the other. The total number of patients for Hospital Leonardo Martínez is 350 served by 225 employees. In the Tegucigalpa Hospital 150 children with 150 adults receive meals. There is no coordination with the Department of Nutrition of the Ministry of Health.

Although no information was available from CARE or CARITAS about the Centro de Salud CESAMO Suazo, information was received by the Ministry of Health personnel. Undernourished children, pregnant and lactating women are cared for. Food is received from CARE (2 lbs. of dry food per month per person and one quart of oil). Food is taken home. At present 80 children from 2 months to 6 years, and 2 lactating mothers and 4 pregnant women are attended at this center. Social workers make the monthly distribution of the food in utensils which the mothers provide for themselves. There is no supervision of recipients' use of food at home. Participants are supposed to come every week for educational activities. Operating agreements state that food supplies are to be used only by eligible recipients.

III. NUTRITIONAL IMPACT OF THE PL 480 TITLE II FEEDING PROGRAMS ^{1/}

A. Evaluation in Terms of Existing Records

Utilizing existing data from records and reports at the national, regional or local levels, it is only possible to evaluate the nutritional impact of the supplementary feeding programs in Honduras to the following extent:

1. The people of Honduras, through Government, public organizations, private organizations and community self-help organizations, are expected to provide about \$1,100,000 to assist in the CARE operations (Table 8).

2. The feeding projects have made it possible an authorized enrollment of approximately 33% of the primary school children (180,000 of 550,000) but only less than 6% of the infants and preschool children of 678,000.

3. The food is well accepted and is prepared to fit the eating patterns of Honduras.

4. The percent of pregnant and lactating women assisted is far too small in terms of the importance of nutrition to the health of both child and mother.

As a result of the inability to draw any significant conclusions from existing information, it was necessary for the contractor to develop original information in/or from the feeding centers.

B. Approach to the Determination of the Nutritional Impact of Feeding Programs

In this section of the report the emphasis will be to develop data directly related to the nutritional impact of the feeding programs by the

^{1/} To make reading the text easier, tables are presented at the end of this Section.

use of several indicators, primarily weight related to age and height. Unfortunately, one of the best indicators, namely, hemoglobin levels, requires the use of medical assistance either at the level of a physician or a trained technician and therefore it was possible to obtain a reading of this indicator in only one center.

Because no records were found concerning these indicators at the national or regional level, it was necessary for the team to try to obtain measurements at the various feeding centers or even make their own measurements. For example, the C&M Field Team weighed 1,332 children and recorded heights of 930 children besides collecting whatever existing records which were useful. Although every effort was made by means of random sampling methods of the centers described in Section I of this report, the variability in the record keeping at the centers leaves much to be desired with respect to utilizing the information collected as base line data. Nevertheless, it is a start.

C. Hemoglobin Level as Evidence of the Nutritional Impact

Comparison of the hemoglobin level in children with desirable or normal levels is to be considered as an indicator of the present condition and of change within a certain period of time. Comparing the hemoglobin values for children at the beginning and at the end of a year, or at any definite set period of time will show the change in nutrition status as well as the effect on other health factors such as parasitic infestation.

Data obtained in only one day care center, where such records were well kept (See Table 9), show that only 15 out of 60 children at the center had values below 11 gms. of hemoglobin (which we consider low) and 45 or over 90% had normal hemoglobin values.

Even more significant was the fact that of three children that had records of two different blood analyses, one child showed an increase from 11.7 to 12 gms.; another showed an increase from 12.3 to 13.6 gms., and still another had changed from low to normal level with an increase from 9.3 to 11.3 gms.

D. Change in Weight of Pregnant Women

As shown in Table 10, data seems to indicate too low weight increase in pregnant women as compared with expected weight gain. The information was limited to one institution and does not necessarily imply in all cases that pregnant women's gain is not within expected range. It does indicate that besides the fact that change in weight is a possible useful indicator, pregnant women need to receive greater attention both in terms of number of women served and the kind and amount of food which is distributed to them. No information as to standards of change on weight was found in centers visited.

E. Birth Weight of Children

Table 11 shows birth weight of 1,224 children born at 2 hospitals, one at Tegucigalpa and another at San Pedro Sula. If these could be classified in the future to distinguish between mothers who attended feeding project and those who did not, it could be used as a possible indicator of the effect of more adequate feeding. Comparison should be made of different areas in the country and, if at all possible, between rural and urban women.

However, the most important aspect of this table is that it shows that the majority of children are born with normal weight. Only 23% of the children had weights of less than 6.2 lbs. at birth. The data, therefore, points to the great importance of the feeding environment after

birth since the records from these urban hospitals indicate a good start at birth with respect to weight. It will be seen in later parts of this section of the report that the percentage of children with normal weights declines drastically.

F. Weight-Age as an Indicator

Weight-age is a valuable indicator of the impact of feeding programs. However, it must be reliably obtained at regular intervals—not necessarily every month—and correctly recorded.

Once such records are available, use should be made of them not only for evaluation but also for determining at each center which children require more attention and study to determine why progress is not being made in the case of a particular child or group of children.

Information can also be used to determine which specific age group is showing less progress, observation as to whether or not enough food for the age is being served to that group or if they are not being helped enough to eat at meals or if food is removed too quickly and the child is not eating well. It could also be an indicator of other such conditions such as parasitic infestation which is exerting counteracting effect to the nutrition efforts being made.

Some records of weight are being kept in a number of centers but they are not reliable, regular, nor accurate. In the following paragraphs some of the data obtained as part of this investigation is presented together with certain interpretations of the findings.

1. Preschool Children's Weight-Age Indicator

a. Weight-Age in Day Care Centers

Table 12 summarizes the nutritional status of 189 children at three day care centers. Only 47% of the children had a normal weight for their age. A total of 53% were undernourished in 1st, 2nd or 3rd degree level. As might be expected, at day care centers the majority of those undernourished were of 1st degree malnutrition and only 4% and 2% were more severely malnourished (3rd degree).

b. Weight in Recuperation Centers

If figures are compared with corresponding data for several recuperation centers visited, it will be observed that not 53% as in the case of day care centers were undernourished, but actually 96% of the children were malnourished under the same classification (Table 13). Some 51% showed 2nd degree malnutrition and 5.9% were considered to have a malnutrition level of the 3rd degree. It can be said that the recuperation centers are really reaching the children with the greatest degree of malnutrition.

It would be of great significance if data could be collected in terms of the extent to which recuperation was made and the length of time the children in each group have been served at the center. It could show whether 4 months is an adequate time in which to expect recuperation.

c. Preschool Feeding Centers

Table 14 summarizes the nutritonal status (based on age-weight) of children at preschool feeding centers which were visited by the team. The seriousness of the nutrition condition is once more evident. However, if Table 12 is compared with this table, it can be seen that the

children of day care centers are better off (more with normal weight) than in the preschool centers. In day care centers it was found that 47% had normal weight whereas in the preschool feeding centers only 20% had normal weight for their age.

d. Comparison of Nutritional Status (Weight-Age) of Children in Preschool Feeding Centers and in Control Area

(1) In Table 16 a comparison is made of 203 children at preschool centers with a control group at Cortés not attending the feeding center. The control group is no more undernourished than those at feeding centers. In no way should this be considered as an indication that the feeding projects should not be continued. If anything it serves as an indication that not enough food is being given to really make a difference in the nutritional status of the child with the possible exception of day care centers and the recuperation centers. As will be indicated later in Table 35, the nutritional contribution of the assigned food allowance was very little as compared with the real needs.^{1/} The situation is even more serious when it is found that not only those enrolled in the programs but others in the surrounding area also come. Better recording of those being served, provision of regular supply of food to assure continuous distribution, and greater food allowance should all probably show their effects in comparison with control groups in the future.

If possible, similar data should be obtained from an even larger sample with a greater coverage but under the same conditions (actual measurements and not on the basis of present records). It is recommended that well-trained persons assume responsibility.

(2) Analysis of a day's menu at a day center and recuperation center to be discussed later on (Tables 28 and 29), showed that the menu

^{1/} For example, 356 calories.

analyzed for one day is too low in calories, which is one of the nutritional deficiencies in the diet of Honduras' children (protein-calorie malnutrition). This conclusion is strengthened by analysis in Table 17. Gain in weight (or weight loss) of 93 children was obtained at one day care center covering a period of 8 months. Even though they were being fed three meals and snacks, only 51% of the children met the standard increase in weight. Only 25% exceeded the expected gain by 26% or more. On the other hand, 43% of the children lost weight during the 8-month period.

In Table 18 the records of 80 children who were weighed 8 months apart (January and September 1976) are given. The records show a decrease in overall malnutrition from 78% to 65%. Also, the severity was reduced as can be seen by the drop in the number of children with 2nd degree malnutrition.

This information is most important as it demonstrates the need for maintaining continuous records on the participants permitting the carrying out of longitudinal studies.

2. School Feeding Records of Weight-Age as Indicator of Nutritional Conditions

a. Nutritional Status of Children in Schools Visited

Table 19 shows the nutritional status of 314 children participating in school feeding programs which were visited by the team. The results imply a more serious problem. Ninety-five percent (95%) were considered undernourished. These children are served only one glass of WSB except in a few instances. Considerable study and planning is necessary to devise feasible ways to supplement food supplies by a variety of means such as with school and community gardens, greater government

participation, greater food allowance from voluntary agencies, more community participation and better facilities as some possible considerations. Naturally, medical supervision and good recording are vital.

b. Comparison with Control Sample

Results obtained must be compared with the control sample (Table 20) as well as with results of other similar studies which CARE's nutritionist made available, such as one in Pespire (Table 21). It will be observed that with respect to both participants and control group, there was more 2nd degree malnutrition than in Pespire study—more so for the control areas. The data are in agreement as to the seriousness of the problem as well as the fact that the present food allowance for school children, as was the case of preschool centers, is not sufficient to make a worthy contribution to improve present nutritional problems.

G. Weight-Height as Indicators of Effectiveness of Feeding Programs

The age-weight relationship fully discussed above may be considered as a historical or long-time direct indicator which presents the magnitude of the problem. The weight-height relationship represents the current situation of the problems—not what the child should weigh for his age if he had had a real chance to grow but what the child should weigh for his actual height even if he is small because of malnutrition, parasitosis or other factors.

Because of the nature of the measure it may be concluded that the weight-height deficit is smaller than the weight-age deficit. Nevertheless, it does confirm the serious problem of malnutrition among the children. Using this indicator to discuss the situation:

-Table 22 shows that 70% of the 7-12 year old children school feeding center participants are underweight for their height.

-Table 23 indicates a 68% underweight figure for control group of school children. There is some improvement (56%) in the group from the Espire nutrition study by CARE.

-Table 24 gives a slightly better picture, as was the case with the weight-age indicator for children at two day care centers, with 52% underweight for height.

-Table 25 shows 78% of children at five SERN recuperation centers with 15% with less than 70% of desired weight for height.

-Table 26 summarized 169 preschool feeding centers attendants with 47% underweight for height.

-Table 27 summarizes SERN, day care centers and preschool feeding centers with a total of 58% underweight for 13 different groups.

H. Use of Chart for Classification of Weight-Age

Use of chart for classification of weight-age (as normal, thin, undernourished, or very much undernourished) is a very valuable indicator if properly kept and if terms are properly defined and understood.^{1/}

At one day care center the chart had been kept by an auxiliary nurse for a long time. It showed decided improvement in some children within time but in others it charted a great loss in weight. The nurse did nothing with the results of the chart. It should be used to refer the child to a doctor when needed and to study the possible circumstances responsible for cases in which no progress is being attained. In total, the charts could tell how many have improved.

^{1/} See Appendix E for an example.

I. Nutritive Value of Menus and Foods and Percent Contribution of Recommended Day's Requirement

Nutritive value of menus and foods and percent contribution of day's requirement is valuable in determining nutritional impact. Well-trained persons, especially from the Ministry of Health, could periodically analyze the nutritive value of selected menus and the contribution they make in terms of daily requirements for each age group. This can be done either for the full day's meals as in day care centers and recuperation centers SERM or for the snack, such as is served in schools. Likewise, the contribution of the food obtained at home could be obtained on the basis of a 24-hour recall. The proportion of donated foods could then be determined.

A one-day menu for day care centers and another for recuperation centers SERM were analyzed (Tables 28 and 29). Analysis of the sample menu at the recuperation center (Table 28) indicates that, in general, it was adequate with respect to certain nutrients. However, the menu shows an inadequate amount of calories which might explain the underweight values found in the children. It likewise shows deficiencies in calcium, niacin and Vitamin A. With a better selection of food the menu would be considerably improved. The menu is apparently adequate in protein.

A better selection of foods and substitutions in menus and portion control could be obtained as a result of having the employees receive a certain amount of training. In one instance, where there was a low Vitamin A diet, a very, very small amount of carrots was being served. However, the refrigerator was full of them at the time.

A standard menu with suggested amounts per serving related to the age of child should be available at each center, prepared by a well-trained person and actually followed. Periodic evaluation of menus as compared

with recommended allowances should be part of any evaluation. The Ministry of Health together with INCAP could determine the nutritional requirements which would be required for meals and have all agencies work toward making this possible.

Menus were generally well accepted and foods served apparently were liked by the participants.

The menu analyzed for a day care center (Table 29) was likewise low in calories but adequate in protein. Analysis is required to determine whether the situation is the same for all age groups or if this low calorie content is more so for a particular age group. As in the SERN menu, very low amounts of Vitamin A, Vitamin C and calcium were estimated. It confirms the need for a better selection of foods purchased.

J. Does the Snack at the School Feeding Program Stimulate Better Attendance?

Efforts were made to find an answer to this question in two different ways: subjectively through the expressed opinion of teachers, and by means of analysis of school attendance in the morning and afternoon sessions of corresponding periods as well as comparison of schools with or without feeding program.

As presented in Table 30, 73% of the teachers believe that the feeding programs are instrumental in providing better attendance at school. Some even went so far as to indicate that better attendance occurs in the morning, when the food is served, than in the afternoon. As shown in Table 31, there was no discernible difference when only one grade in the school was compared, but apparently if the attendance in the whole school at Choluteca is reviewed, there was a definite decrease in PM attendance. The evidence is too limited to justify stating that

children do not attend the PM session as well as they do the morning session. If such data are obtained from a larger number of schools and for a more prolonged period of time, the analysis might be considered significant.

In terms of the impact of the meal on school attendance in itself, only one example was obtained of a school where the food had been served and was discontinued, and another in which it was not served previously but was started in 1977 (Table 32). In the first instance attendance seems to increase but then drops again. In the other, there is an increase from 276 to 320 when they started serving the school food.

The Ministry of Education with the attendance records which it keeps could easily undertake to find evidence of the actual impact of the program on the schools. Attempts to do so were not possible because information could not be obtained, but it is available. A larger sample of these indicators to determine the impact of the school snack could be significant.

Effect of crop harvesting and other such factors must be considered in future evaluations. It did not affect our sampling, but it will affect the data on attendance during various seasons.

It will be observed in Table 33 that enrollment per grade in the A. Coello School seems to indicate greater need to emphasize the requirement for the smaller children to attend school and benefit from the feeding programs.

K. Does Food Assigned from PL 480 Provide Sufficient Amounts of Necessary Nutrients?

Even though the total amount of foods distributed is considerable and reaches a large number of people (Table 34), a study of the actual

food value of the specific amounts per person per type of project needs very careful consideration.^{1/}

In Table 35 the nutrient value of the per capita food distributed is shown and compared with the Recommended Dietary Allowance. The amounts are too small and the proportion of calories provided is not significant. The amount provided is too meager for school children and pre-school feeding centers.^{2/}

Government agencies, together with AID and voluntary agencies, should reach an agreement as to the goals of the feeding programs in terms of the nutritional goals and the type of foods which can be feasibly provided to achieve the nutritional goals.

^{1/} It must be recalled that in many instances it has been shown earlier in this report that the amounts actually received by the feeding in the field fall below the allotments.

^{2/} It is difficult to set standards for partial feeding programs. In Puerto Rico the standard for the school feeding programs is one-third of the Daily Recommended Dietary Allowances.

TABLES
Chapter III

Table 8

CARE-Honduras Program Plan FY 77

Contributions to Program

(in U.S. Dollars)

TYPE OF CONTRIBUTION	National Local Governments	Indigenous Public Organizations (Junta, SNAAN)	Indigenous Private Associations	Community Self-Help Organizations	T O T A L S
Warehousing	33,940	7,986	-	17,393	59,319
CARE Office Rent	2,550	0	0	0	2,550
Transportation	51,909	33,940	726	10,437	97,012
Personnel and Administrative Services	448,469	91,839	1,730	53,240	595,278
Additional Local Purchases of Food	3,542	151,800	834	183,425	339,601
T O T A L S	540,410	285,565	3,290	264,495	1,093,760

Source: CARE

Table 9

Hemoglobin Values (gms.) of 60 Children
2-6 yrs. of Age Attending Day Care Center of
Ministry of Labor in Tegucigalpa
1977

<u>Hemoglobin Gms.</u>	<u>Female</u>		<u>Male</u>	
1. <u>No Record Available</u>	4		5	
2. <u>Low Hemoglobin Values</u>				
9.1 - 9.5	-		1	
9.6 - 10.0	2		2	
10.1 - 10.5	-		-	
10.6 - 11.0	<u>1</u>	7	<u>-</u>	8
3. <u>Normal Hemoglobin Values</u>				
11.1 - 11.5	3		2	
11.6 - 12.0	3		5	
12.1 - 12.5	7		2	
12.6 - 13.0	9		6	
13.1 - 13.5	1		4	
13.6 - 14.0	<u>2</u>	<u>25</u>	<u>1</u>	<u>20</u>
Total		<u>32</u>		<u>28</u>

Source: Calculated by Field Team of Clapp and Mayne, Inc. from records at the Center.

Table 10
 Change in Weight^{1/} of 99 Pregnant Women at
 Césamo Dr. Miguel Paz Barona
 Honduras 1977

	<u>Pounds</u>	<u>Number of Women</u>	<u>Percent</u>
Gain in Weight			
<u>Inadequate</u>	6.5 or less	31	32%
	6.6 - 7.9	9	9%
	8.0 - 10.3	13	13%
<u>Normal</u>	10.4 - 12.2	12	12%
	12.3 - 14.0	7	7%
	14.1 - 16.0	8	8%
	16.1 or more	<u>19</u>	<u>19%</u>
<u>Total</u>		<u>99</u>	<u>100%</u>

^{1/} Expressed as: Low weight gain-in terms of recommended or
 expected gains in pounds.
Normal or expected gain-(10-12.2 lbs. increase
 or more.)

Table 11

Birth Weight of 1,224 Children in Two Hospitals in Honduras, C.A. During May 1977 Described as Underweight or Over in Weight

Birth Weight (lbs.)	Hospital Materno-Infantil Tegucigalpa		Hospital Leonardo Martínez San Pedro Sula		Total	
	Number of Children	Percent	Number of Children	Percent	Number	Percent
<u>Underweight</u>	<u>190</u>	<u>25.5</u>	<u>91</u>	<u>18</u>	<u>281</u>	<u>23</u>
0 - 1.99	10	1.5	--	--		
2 - 3.49	9	1.0	--	--		
3.5 - 5.49	44	6.0	--	--		
5.5 - 6.24	127	17.0	91	18		
<u>Normal Weight or Over</u>	<u>542</u>	<u>74.5</u>	<u>401</u>	<u>82</u>	<u>943</u>	<u>77</u>
6.25 - 7.74	418	57.0	242	49		
7.75 - 8.49	79	11.0	108	22		
8.50 - 9.49	37	5.0	43	9		
9.50 - 9.99	6	1.0	8	2		
Over 10 lbs.	<u>2</u>	0.5	<u>--</u>	<u>--</u>		
Total	<u>732</u>		<u>492</u>		<u>1224</u>	<u>100</u>

Source: Collected by Clapp and Mayne, Inc. Field Team from Hospital Record.

Table 12
 Nutritional Status (Age-Weight) of Children at
 Three Day Care Centers
 Honduras, May 1977

	Cortés SPS Medina		Atlántida Ceiba		Tegucigalpa Dolores		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
<u>Total</u>	<u>46</u>	<u>100</u>	<u>63</u>	<u>100</u>	<u>80</u>	<u>100</u>	<u>189</u>	<u>100</u>
<u>Normal</u>	28	61	32	51	28	35	88	47
<u>Malnourished</u>	<u>18</u>	<u>39</u>	<u>31</u>	<u>49</u>	<u>52</u>	<u>65</u>	<u>101</u>	<u>53</u>
Degree:								
1st	16	35	25	40	49	61	90	47
2nd	1	2	5	8	2	3	8	4
3rd	1	2	1	1	1	1	3	2

Source: Collected by Clapp and Mayne, Inc. Field Team

Table 13

5

Nutritional Status (Based on Age-Weight) of 285 Children
Participating in Seven Recuperation Centers (SERN)
Honduras, May 1977

<u>Nutritional Status</u>	<u>Choluteca</u> <u>Pespire</u>		<u>Cortés</u> <u>San Pedro</u>		<u>Santa</u> <u>Bárbara</u>		<u>La Paz</u> <u>San José</u>		<u>Comayagua</u> <u>Los Angeles</u>		<u>Choluteca</u> <u>Pespire</u> <u>ONS</u>		<u>El Paraíso</u> <u>Danli</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>6</u>	<u>100</u>	<u>19</u>	<u>100</u>	<u>19</u>	<u>100</u>	<u>20</u>	<u>100</u>	<u>28</u>	<u>100</u>	<u>28</u>	<u>100</u>	<u>165</u>	<u>100</u>	<u>285</u>	<u>100</u>
<u>Normal</u>	1	17	--	--	--	--	1	5	1	4	--	--	8	5	11	4.0
<u>Malnourished</u>	<u>5</u>	<u>84</u>	<u>19</u>	<u>100</u>	<u>19</u>	<u>100</u>	<u>19</u>	<u>95</u>	<u>27</u>	<u>96</u>	<u>28</u>	<u>100</u>	<u>157</u>	<u>95</u>	<u>274</u>	<u>96.0</u>
Degree:																
1st	3	50	3	16	2	10	10	50	18	64	7	25	69	42	112	39.3
2nd	1	17	14	74	14	74	9	45	9	32	18	64	80	48	145	50.8
3rd	1	17	2	10	3	16	--	--	--	--	3	11	8	5	17	5.9

Source: Collected by Clapp and Mayne, Inc. Field Team.

Table 14.

Nutritional Status of 203 Children at Pre-School Feeding Centers
on Age-Weight Basis
Honduras, May 1977

<u>Nutritional Status</u>	<u>Cortés Nueva Justola</u>		<u>San Vicente Paul</u>		<u>Santa Bárbara Pueblo Nuevo</u>		<u>Atlántida Paujiles Tejas</u>		<u>Atlántida Ceiba</u>		<u>La Paz San José</u>		<u>Choluteca Respire</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>33</u>	<u>100</u>	<u>36</u>	<u>100</u>	<u>26</u>	<u>100</u>	<u>37</u>	<u>100</u>	<u>35</u>	<u>100</u>	<u>14</u>	<u>100</u>	<u>22</u>	<u>100</u>	<u>203</u>	<u>100</u>
<u>Normal</u>	8	24	13	36	6	23	5	14	4	11	2	14	2	9	40	19.7
<u>Malnourished</u>	<u>25</u>	<u>76</u>	<u>23</u>	<u>64</u>	<u>20</u>	<u>77</u>	<u>32</u>	<u>86</u>	<u>31</u>	<u>89</u>	<u>12</u>	<u>86</u>	<u>20</u>	<u>91</u>	<u>163</u>	<u>80.3</u>
Degree:																
1st	13	40	20	56	12	46	14	38	16	46	10	72	15	68	101	49.7
2nd	10	30	3	8	6	23	15	40	10	29	2	14	4	18	49	24.2
3rd	2	6	--	--	2	8	3	8	5	14	--	--	1	5	13	6.4

Source: Data collected from the Centers by the Clapp and Mayne, Inc. Field Team.

Table 15

Nutritional Status^{1/} of 404 Children Under 6 Years
of Age Attending Preschool Centers, Recuperation Centers
(SERN) and Day Care Centers

<u>Nutritional Status</u>	<u>7 Preschool Feeding Centers</u>		<u>5 Recuperation Centers (SERN)</u>		<u>2 Day Care Centers</u>		<u>Total^{2/}</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	203	100	115	100	86	100	404	100
<u>Normal</u>	40	20	25	22	41	48	106	26
<u>Malnourished</u>	<u>163</u>	<u>80</u>	<u>90</u>	<u>78</u>	<u>45</u>	<u>52</u>	<u>298</u>	<u>74</u>
95% - 70%	101	50	73	63	41	47	215	53
Less than 70%	62	30	17	15	4	5	83	21

^{1/} On the basis of height-weight.

^{2/} Since the proportion of children in each type of center, the total column is not properly weighted. Therefore, general conclusions cannot be drawn.

Source: Data collected by Clapp and Mayne, Inc. Field Team.

Table 16

Nutritional Status (Age-Weight) of
 Preschool Children at Control Area
 (Cortés-Colonia Tepeaca) as Compared
 With Children at 7 Preschool Feeding Centers

Nutritional Status	Cortés SPS Colonia Tepeaca		Children at 7 Preschool Feeding Centers	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>20</u>	<u>100</u>	<u>203</u>	<u>100</u>
<u>Normal</u>	5	25	40	20
<u>Malnourished</u>	<u>15</u>	<u>75</u>	<u>163</u>	<u>80</u>
Degree:				
1st	9	45	101	49
2nd	4	20	47	24
3rd	2	10	13	7

Source: Data collected by Clapp and Mayne, Inc. Field Team

Table 17

Percent of Expected ^{1/}Weight Increase or Loss in Weight (lbs. and Percent) in
93 ^{2/} Children at Dolores Day Care Center from September 1976 - May 1977

8

<u>Age of Child</u>	<u>Expected gain in lbs. for 9 months on basis of age (minimum)</u>	<u>Percent Increase in Weight in Terms of Expected Pounds</u>			<u>Gained Weight</u>		<u>Loss in Weight in Terms of % of lbs. They Should Have Gained</u>		<u>Lost Weight</u>	
		<u>51% or more</u>	<u>26% - 50%</u>	<u>25% or less</u>	<u>No.</u>	<u>%</u>	<u>26% - 50%</u>	<u>51% or more</u>	<u>No.</u>	<u>%</u>
1 - 1.9 years	4	2	--	3	5	5	3	5	8	8
2 - 2.9 years	3	2	5	1	8	8	9	2	11	12
4 - 4.9 years	3	5	1	9	15	16	17	2	19	20
5 - 5.9 years	<u>3</u>	<u>3</u>	<u>5</u>	<u>15</u>	<u>23</u>	<u>26</u>	<u>10</u>	<u>6</u>	<u>16</u>	<u>4</u>
Total	<u>13</u>	<u>12</u>	<u>11</u>	<u>28</u>	<u>51</u>	<u>55</u>	<u>39</u>	<u>15</u>	<u>54</u>	<u>44</u>

1/ On the basis of age of child for a 9-month period as recorded.

2/ Record available for only this group.

Source: Collected from the records of Dolores Day Care Center by Clapp and Mayne, Inc. Field Team.

Table 18

Improvement in the Nutritional Status of 80^{1/}
 Children (Age-Weight) at Dolores Day Care Center,
 Tegucigalpa in January 1976 as compared to September 1976

<u>Nutritional Status</u>	January 1976		September 1976	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>80</u>	<u>100</u>	<u>80</u>	<u>100</u>
<u>Normal</u>	18	22	28	35
<u>Malnourished</u>	<u>62</u>	<u>78</u>	<u>52</u>	<u>65</u>
Degree:				
1st	48	60	49	61
2nd	13	16	2	3
3rd	1	2	1	1

1/ Only number of children with such record available were used in this table.

Source: Data collected from the Center by Clapp and Mayne, Inc. Field Team.

Table 19
 Nutritional Status (Age-Weight) of 314 Children Participating in
 School Feeding Programs in Honduras, May 1977

<u>Nutritional Status</u>	<u>El Paraíso</u> <u>República</u> <u>de Colombia</u>		<u>Cortés</u> <u>Nisperoles</u>		<u>Cortés</u> <u>Petronila</u>		<u>Santa Bárbara</u> <u>Pueblo Nuevo</u>		<u>Ceiba</u> <u>E. Fiallo</u>		<u>Atlántida</u> <u>D. Herreras</u>		<u>La Paz</u> <u>San José</u>		<u>Choluteca</u> <u>Pespire</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>68</u>	<u>100</u>	<u>30</u>	<u>100</u>	<u>13</u>	<u>100</u>	<u>15</u>	<u>100</u>	<u>36</u>	<u>100</u>	<u>35</u>	<u>100</u>	<u>81</u>	<u>100</u>	<u>35</u>	<u>100</u>	<u>314</u>	<u>100</u>
<u>Normal</u>	5	7	3	10	--	--	3	20	1	4	1	3	1	1	1	3	15	5
<u>Malnourished</u>	<u>63</u>	<u>93</u>	<u>27</u>	<u>90</u>	<u>13</u>	<u>100</u>	<u>12</u>	<u>80</u>	<u>36</u>	<u>96</u>	<u>34</u>	<u>97</u>	<u>80</u>	<u>99</u>	<u>34</u>	<u>97</u>	<u>299</u>	<u>95</u>
<u>Degree:</u>																		
1st	30	43	11	37	3	23	11	73	18	48	13	37	31	38	14	40	131	42
2nd	33	49	15	50	9	69	1	7	18	48	18	51	46	57	18	51	158	50
3rd	--	--	1	3	1	8	--	--	--	--	3	9	3	4	2	6	10	3

Source: Data collected by Clapp and Payne, Inc. Field Team

Table 20

Comparison of Nutritional Status of 256 Children in 7 Schools Without School Feeding Program (Control Sample) with 314 Children in 8 Schools with School Feeding Program

<u>Nutritional Status</u>	<u>Santa Rosa Copán (Alvaro Contreras)</u>		<u>Cortés Justosa</u>		<u>Cortés El Galán</u>		<u>Atlántida Tela Paujiles</u>		<u>Norazan Sabana Grande</u>		<u>Choluteca Pespire</u>		<u>El Paraíso Daulín</u>		<u>Total Control (no feeding)</u>		<u>Schools with School Feeding</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	27		26	100	20	100	27	100	76	100	22	100	58	100	256	100	314	100
<u>Normal</u>	1	4	-	-	1	5	2	7	12	16	1	5	1	7	21	8	15	5
<u>Malnourished</u>	26	96	26	100	19	95	25	93	64	84	25	95	54	93	235	92	299	95
<u>Degree:</u>																		
1st	9	33	9	35	7	35	5	18	35	45	7	32	25	43	97	38	131	42
2nd	17	63	14	54	12	60	15	57	27	36	12	54	27	47	124	49	158	50
3rd	-	-	3	11	-	-	5	18	2	3	2	9	2	3	14	5	10	3

Source: Data collected by Clapp and Mayne, Inc. Field Team.

Table 21

Nutritional Status ^{1/} of 314 Participants in School Feeding Programs
in Honduras as compared with Control Areas and Respire ^{2/} Nutrition Study

<u>Nutritional Status</u>	<u>Participants in School Feeding</u>		<u>Control</u>		<u>Respire Nutrition Study by CARE</u>			
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>Under 6 Years</u>		<u>Over 6 Years</u>	
					<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>314</u>	<u>100</u>	<u>256</u>	<u>100</u>	<u>257</u>	<u>100</u>	<u>66</u>	<u>100</u>
<u>Normal</u>	15	5	21	8	38	15	7	11
<u>Malnourished</u>	<u>299</u>	<u>95</u>	<u>235</u>	<u>92</u>	<u>219</u>	<u>85</u>	<u>59</u>	<u>89</u>
Degree:								
1st	131	42	97	38	138	54	33	50
2nd	158	50	124	49	78	30	22	33
3rd	10	3		5	3	1	4	6

^{1/} On the basis of age-weight.

^{2/} Nutrition Study made by Peace Corps CARE Nutritionist.

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 22
 Nutritional Status (Weight-Height)^{1/} of 329 Children 7-12 Years
 Attending School Feeding Program (Honduras 1977)

<u>Nutritional Status</u>	<u>Cortés (1)</u>		<u>Cortés Nisperoles</u>		<u>Atlántida Tela E. Fiallo</u>		<u>Atlántida Tejos D. Herrero</u>		<u>Santa Bárbara Puerto Nuevo</u>		<u>El Paraíso Puerto Nuevo</u>		<u>La Paz San José</u>		<u>Choluteca Pespire</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>13</u>	<u>100</u>	<u>30</u>	<u>100</u>	<u>37</u>	<u>100</u>	<u>35</u>	<u>100</u>	<u>30</u>	<u>100</u>	<u>68</u>	<u>100</u>	<u>81</u>	<u>100</u>	<u>35</u>	<u>100</u>	<u>329</u>	<u>100</u>
<u>Normal</u>	4	31	7	23	5	14	8	23	8	27	29	43	17	21	20	57	98	30
<u>Malnourished</u>	9	69	23	77	32	86	27	77	22	73	39	57	64	79	15	43	231	70

^{1/} On the basis of desirable weight for height.

Source: Data collected by the Clapp and Mayne, Field Team

Table 23
 Nutritional Status (Weight-Height)^{1/} of 329 Children Weighed at Schools With
 Feeding Centers as Compared to 231 Children 7-12 Years Not Attending School
 Feeding (Control Groups) and Pespire Study^{2/} Honduras, May 1977

Nutritional Status ^{2/}	Cortés Escuela Justoja		Cortés El Galán		Atlántida Visitación Padilla		Sabana Grande		Choluteca E. Fabón Ochoa		El Paraíso Guía Técnico		Control Group ^{3/} Total		Results of Pespire Study		Children School Feeding ^{3/}	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Total</u>	<u>28</u>	<u>100</u>	<u>20</u>	<u>100</u>	<u>27</u>	<u>100</u>	<u>76</u>	<u>100</u>	<u>22</u>	<u>100</u>	<u>58</u>	<u>100</u>	<u>231</u>	<u>100</u>	<u>21</u>	<u>100</u>	<u>329</u>	<u>100</u>
<u>Normal</u>	3	11	7	35	4	15	33	43	9	41	18	31	74	32	9	43	98	30
<u>Malnourished</u>	25	89	13	65	23	85	43	51	13	59	40	69	157	68	12	57	231	70

^{1/} On the basis of desirable weight-age.

^{2/} Undertaken by CARE Pease Corp. Nutritional.

Source: Data from schools obtained by the Clapp and Mayne Field Team.

Table 24

Nutritional Status (Weight-Height) of 86 Children
Under 6 Years of Age Attending 2 Day Care Centers
Honduras, 1977

<u>Nutritional Status</u>	<u>Cortés</u> <u>M. Concepción</u>		<u>Cortés</u> <u>Ceiba</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>23</u>	<u>100</u>	<u>63</u>	<u>100</u>	<u>86</u>	<u>100</u>
<u>Normal</u>	19	83	22	35	41	48
<u>Malnourished</u>	<u>4</u>	<u>17</u>	<u>41</u>	<u>65</u>	<u>45</u>	<u>52</u>
95% - 70%	3	13	28	60	41	47
Less than 70%	1	4	3	5	4	5

Source: Data collected by Clapp and Mayne, Inc. Field Team.

Table 25

Nutritional Status (Weight-Height) of 115 Children
Under 6 Years of Age Attending Recuperation Centers (SERN)
Honduras, May 1977

<u>Nutritional Status</u>	<u>Cortés</u> <u>S.P.S.</u>		<u>La Paz</u> <u>San José</u>		<u>Santa</u> <u>Bárbara</u> <u>Quimistán</u>		<u>Comayagua</u> <u>Ajutevique</u>		<u>Choluteca</u> <u>Pespire</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>19</u>	<u>100</u>	<u>21</u>	<u>100</u>	<u>19</u>	<u>100</u>	<u>28</u>	<u>100</u>	<u>28</u>	<u>100</u>	<u>115</u>	<u>100</u>
<u>Normal</u>	3	16	8	38	1	5	10	36	3	11	25	22
<u>Malnourished</u>											<u>90</u>	<u>78</u>
95% - 70%	14	73	12	57	18	95	10	36	19	68	73	63
Less than 70%	2	11	1	5	--	--	8	28	6	21	17	15

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 26

Nutritional Status (Weight-Height) of 169 Children
Under 6 Years Attending Preschool Feeding Centers
Honduras, May 1977

<u>Nutritional Status</u>	<u>Atlántida Tela Paujiles</u>		<u>Atlántida Ceiba JBUS CNC</u>		<u>La Paz San José JNRS</u>		<u>Choluteca Pespire INRS</u>		<u>Santa Bárbara Pueblo Nuevo</u>		<u>El Paraíso Danli</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>37</u>	<u>100</u>	<u>35</u>	<u>100</u>	<u>14</u>	<u>100</u>	<u>6</u>	<u>100</u>	<u>26</u>	<u>100</u>	<u>51</u>	<u>100</u>	<u>169</u>	<u>100</u>
<u>Normal</u>	21	57	16	46	8	57	1	17	23	88	20	39	89	53
<u>Malnourished</u>														
95% - 70%	12	32	13	37	6	43	5	83	2	8	30	59	68	40
Less than 70%	4	11	6	17	--	--	--	--	1	4	1	2	2	7

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 27

Nutritional Status^{1/} of 350 Children Under 6 Years
of Age Attending Preschool Centers, Recuperation Centers
(SERN) and Day Care Centers

<u>Nutritional Status</u>	<u>6 Preschool Feeding Centers</u>		<u>5 Recuperation Centers (SERN)</u>		<u>2 Day Care Centers</u>		<u>Total</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>Total</u>	<u>169</u>	<u>100</u>	<u>115</u>	<u>100</u>	<u>86</u>	<u>100</u>	<u>370</u>	<u>100</u>
<u>Normal</u>	89	53	25	22	41	48	155	42
<u>Malnourished</u>	<u>80</u>	<u>47</u>	<u>90</u>	<u>78</u>	<u>45</u>	<u>52</u>	<u>215</u>	<u>58</u>
95% - 70%	68	40	73	63	41	47	182	49
Less than 70%	12	7	17	15	4	5	33	9

^{1/} On the basis of height-weight

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 28

Nutritional Analysis of a Day's Menu^{1/}
 at Recuperation Center (SERN)
 and Percent of Recommended
 Daily Allowance the Same Provides

<u>Food</u>	<u>Amount</u>	<u>Calories</u>	<u>Prot.</u> <u>gms.</u>	<u>Calcium</u> <u>mgs.</u>	<u>Iron</u> <u>mgs.</u>	<u>Vit.A</u> <u>U.I.</u>	<u>Vit.B₁</u> <u>mgs.</u>	<u>Ribo.</u>	<u>Nia.</u>	<u>Vit.</u> <u>C</u>
Plantain	1/4	62	.5	2	.25	540	.03	.022	.25	3
Cheese	1 T	50	3	24	.08	40	.008	.08	.006	-
W.S.B.	1 oz.	108	6.0	225	6.2	497	.5	.20	3.0	13
Banana	1	97	1.2	9	.7	50	.054	.054	.6	11
Beans	1 T	52	3.4	21	.9	-	.15	.03	.33	-
Egg	1/2	39	3.1	13	.55	285	.02	.65	-	-
Tortilla WSB	50	115	3.4	64	2.4	-	.13	.03	.60	-
Jelly	1 t.	14	-	2	.075	-	-	-	-	-
Beans	2 T	105	6.9	41	1.9	-	.3	.06	.66	-
Egg	1	78	6.2	26	1.1	570	.04	.13	-	-
Tortilla	50	115	3.4	64	2.4	-	.13	.03	.60	-
TOTAL		885	40.1	515	16.63	20.22	1.35	1.36	6.04	27
RDA (4-6 yrs.)		1800	30	800	10	2500	.9	.9	12.0	40
(% of RDA)		49	133	64	166	80	150	151	50	67

^{1/} Menu Breakfast: Fried Plantain and Butter
 Snack: WSB and banana
 Lunch: Bean soup with egg
 WSB Tortilla, jelly
 Dinner: Fried Beans and Cheese
 Egg, Tortilla

References: AID Department of State - Nutritive Values of P.L y 80 Commodities per 100 grams - INCAP-ICNND- Food Compositions Table
 Bcwes and Church, Food Values Commonly Used.

Source: Calculations made by the Clapp and Mayne, Inc. Field Team.

Table 29

Nutritional Analysis of One Day Menu^{1/}
at a Day Care Center in Tegucigalpa and the
Percent of the Recommended Daily Allowance
That Such Menu Contributes

<u>Food</u>	<u>Amount</u>	<u>Calories</u>	<u>Prot.</u> <u>gm.</u>	<u>Calcium</u> <u>mgs.</u>	<u>Fe.</u> <u>mgs.</u>	<u>Vit.A</u> <u>U.I.</u>	<u>Vit.B₁</u> <u>mgs.</u>	<u>Ribo.</u> <u>mgs.</u>	<u>Niacina</u> <u>mgs.</u>	<u>Vit.C</u> <u>mgs.</u>
Cup cakes	2 ozs.	146	1.8	26	.2	68	.008	.040	.10	-
Milk	4 ozs.	44	4.4	149	trz.	trz.	.05	.22	.10	-
Cornflakes	1 ozs.	95	2.1	6	.5	0	.100	.02	.50	-
Chicken	2 ozs.	116	13.4	10	.7	230	.039	.05	5.1	-
Rice	1 ozs.	103	2.1	7	.2	0	.02	.008	.50	-
*Beans ^{2/}	-	-	-	-	-	-	-	-	-	-
WSB	1 oz.	108	6.0	225	6.2	497	-	-	-	13
Cheese	1 T.	50	3.0	24	.08	40	.008	.08	.006	-
Beans	2 T.	105	6.9	41	1.9	-	.3	.06	.66	-
Tortilla	50 gms.	115	3.4	64	2.4	-	.13	.03	.60	-
TOTAL		882	43.1	552	12.18	835	.673	.508	7.56	13
RDA (4-6 yrs.)		1800	30	800	10	2500	.9	.9	12.0	40
(% of RDA)		49	143	69	121	33	74	56	63	32

^{1/} Menu Breakfast: Cup cake, milk and cornflakes
Lunch: Stewed chicken and rice and beans
Snack: WSB drink
Dinner: Cheese, beans, tortilla

^{2/} Only two or three per dish.

Source: Calculations made by the Clapp and Mayne, Inc. Field Team.

Table 30

Opinion Expressed by Teachers
As to Effect of School Feeding
on School Enrollment

<u>Department</u>	<u>Total No. of Teachers</u>	<u>Teachers Interviewed</u>	<u>Opinion That Feeding Increases School Enrollment</u>	
			<u>Yes</u>	<u>No</u>
A. <u>Cortés</u>				
1. Barrios de Cabañas	6	3	2	1
2. Los Nisperales	2	2	2	-
3. E. Fiallo, Tela	6	3	2	1
4. Dionisio Herrera, Tela	6	3	2	1
B. <u>Santa Bárbara</u>				
5. Luis Llando	6	3	2	1
6. Augusto Coello	8	6	4	2
C. <u>La Paz</u>				
7. Ramón Rosas	20	8	6	2
8. Manuel Bonilla	20	8	6	2
D. <u>El Paraíso</u>				
E. <u>República de Colombia- Cholulteca</u>	20	8	6	2
Monsellor Respire	<u>20</u>	<u>7</u>	<u>5</u>	<u>2</u>
Total	<u>114</u>	<u>51</u>	<u>37</u>	<u>14</u>
Percent			<u>73%</u>	<u>27%</u>

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 31

Comparison of School Attendance AM and PM in
a Specific Grade or at an Entire School

<u>School</u>	<u>Enrollment Included</u>	<u>Date of Available Information</u>	<u>Attendance</u>	
			<u>AM</u>	<u>PM</u>
School No. 1 (Tela)	3rd grade	5/16/76	24	25
School No. 2 (Sabana Grande)	6th grade	8/12/76	25	25
Complete School Enrollment (Choluteca)	All grades	5/23/77	615	585

Source: Data collected by the Clapp and Myne, Inc. Field Team.

Table 32

Enrollment at 2 Schools in Periods With
and Without Feeding Program

<u>Year</u>	<u>S c h o o l s</u>			
	<u>Fiallo</u>		<u>Augusto Coello</u>	
	<u>Without Feeding Program</u>	<u>With Feeding Program</u>	<u>Without Feeding Program</u>	<u>With Feeding Program</u>
1973	118		262	
1974	140		282	
1975	147		297	
1976		160	276	
1977		136		320

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 33

Enrollment for Each Grade at Augusto Coello School,
Copán, Departamento Charneco, Honduras
1973-77

<u>Grade</u>	<u>Enrollment</u>				
	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
1	75	84	71	69	52
2	80	62	61	52	73
3	38	75	55	55	47
4	26	24	56	46	37
5	27	28	20	37	43
6	<u>16</u>	<u>19</u>	<u>24</u>	<u>17</u>	<u>26</u>
Total	<u>262</u>	<u>282</u>	<u>297</u>	<u>276</u>	<u>320</u>

1973-76 - Had school feeding but was discontinued

1977 - Had school feeding program again.
No increase for first grade where most needed.

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

Table 34

CARE-Honduras - Program Plan FY 77.

BENEFICIARY CATEGORIES

REF. Group of Recipients	No. of Beneficiaries	No. of Feeding Sites	Feeding Days Per Month	Commodities	Rate per Day in Grams (app.)
(1) Mother/Child Health Centers	38,000	271	25	Bulgur; Oil WSB Flour	13 45 9
(2) Pre-School Feeding Centers	20,000	160	20	Bulgur; Oil WSP Flour	16 57 11
(3) Hospitals (Mother/Child)	$\frac{2,000}{60,000}$	15	30	Bulgur; Oil WSB Flour	11 38 8
(4) Food-For-Work	4,000 Workers (16,000 Dependents)	80 (Estimated)	10 Working Days	Bulgur WSB Oil	75 75 9.1
(5) School Feeding	235,000	2,350	20	WSB	41*
(6) Children's Institutions	2,500	21	30	Bulgur WSB Oil; Flour	33 50 15
(7) Day Care Centers	$\frac{2,000}{4,500}$	14	25	Bulgur WSB Oil, Flour	40 60 18

* A possible increase in rations may result dependent upon future evaluations.

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Table 35a

Food Value of PL 480 Foods According to the Amount that is Assigned to Each Beneficiary as Compared to Recommended Dietary Allowances

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	Calories	N U T R I E N T S					Food Assigned per Day
		Prot. (gms.)	Calc. (mgs.)	Iron (mgs.)	Vit. A (I.U.)	Rib. (mgs.)	
I. Amount Recommended RDA for Children							
(4 - 6 yrs)	1,800	30	800	10	2,500	1.1	
a. Provided at Pres- chool							
Feeding Centers (Mother/Child)	356	12	327	10.3	825	.01	Bulgur 13 gms. Oil 13 gms. W.S.B. 45 gms. Flour 9 gms.
Percent of RDA	20	40	40	103	33	0	
b. Provided at Chil- dren's Institution	486	7	378	12.4	961	.02	Bulgur 33 gms. W.S.B. 50 gms. Oil 15 gms. Flour 15 gms.
Percent of RDA	27	23	47	120	38	0	
c. Provided at Day Care Centers	583	19	453	15	1,066	.02	Bulgur 40gms. W.S.B. 60 gms. Oil 18 gms. Flour 18 gms.
Percent of RDA	32	63	56	150	42	0	
II. Amount Recommended RDA for Children							
(7 - 10 yrs)	2,400	36	800	10	3,300	1.2	
a. Provided at School Feeding	147	8	281	8.5	680	0	
Percent of RDA	6	22	35	85	20	0	W.S.B. 41 gms.

(Cont.)

Table 35b (Cont.)

	Calories	N U T R I E N T S					
		Prot. (gms.)	Calcium (mgs.)	Iron (mgs.)	Vit. A (I.U.)	Rib. (mgs.)	
III. Amount Recommended							
Males (23-50)	2,700	56	800	10	5,000	1.6	
Females	2,100	46	800	18	4,000	1.2	
a. Food Value of Food for Work	619	22	537	19.1	1,244	0	Bulgur 75 gms. Oil 9 gms. W. S. B. 75 gms.
Percent of RDA (male)	22	39	67	190	25	0	

Source: Calculations made by the Clapp and Mayne, Inc. Field Team.

IV. EVALUATION OF EFFICIENCY OF OPERATIONS OF PL 480 TITLE II FEEDING PROGRAMS

A. Introduction

Although the Scope of Work in the Contract calls for an evaluation of each category of feeding program, in various meetings and in a letter from Dr. Linda N. Haverberger, Nutrition Advisor of the Office of Development Resources, Bureau of Latin America, AID, we were advised that "nutrition/health 'impact' of feeding programs as the most important aspect of the evaluation as opposed to an evaluation of the administrative aspects of the programs, i.e. shipping, warehousing, etc. (This is not to imply that the latter should not be examined and recommendations made for increased efficiency.)"^{1/} The parenthesis was probably added as a safety measure. It is clear from the make-up of the staff required according to the original RFP, namely, a nutritional planner and a statistician, that there was very little intention of studying the operational and organizational aspects of getting the food to the clientele.

Further, in a memorandum from the Director of AID/H dated April 29, 1977, entitled "PL Title II in Honduras: Tentative Guidance",^{2/} it can be seen that the emphasis is on planning, programming, integration with AID/H development objectives, and the long run assumption on the part of the Government of Honduras of the Feeding Programs.

As a result of these instructions no systematic scheme was developed for carrying out observations regarding the operations of the Feeding Programs. The findings and recommendations, therefore, are a result of

^{1/} Appendix F
^{2/} Appendix B

observations which were made as a by-product of the effort to measure the nutritional impact and to develop policies and plans for the medium and long-run programs to be carried out by AID/H, the VolAgs and GOH with respect to the PL 480 Title II Feeding Programs.

B. Coordination

Almost immediately one is struck with the apparent lack of coordination between the Government of Honduras, the VolAgs and AID/H with respect to the various PL 480 Title II Feeding Programs and other feeding programs. This is in many ways reminiscent of the early days of the foreign assistance programs and those currently operating in the least developed countries, primarily Africa. In the case of the PL 480 Title II feeding programs there may be several reasons for this situation, namely: (1) the program originally was initiated partly for humanitarian reasons but also because of the existence of food surpluses in the United States; (2) the program is being administered by agencies which are independent of both the U.S. Government and the Government of Honduras and, with the exception of food for work projects, was not looked upon as directly contributing to the development of the local economy;^{1/} (3) it is more difficult to criticize PL 480 Title II feeding programs because they are designed to reach the persons who are malnourished.

One of the most promising features observed in Honduras is the existence and functioning of SAPLAN (Sistema de Análisis y Planificación de la Alimentación y Nutrición). It is something that many countries are trying, in vain, to organize or, frequently, where it does exist it does

^{1/} In fact, the PL 480 Title I program has been criticized rather by a number of development economists as having a negative influence on agricultural development of an LLC.

not have the government recognition or the resources to carry out its objectives. Such is not the case in Honduras. It is organized, has made an excellent evaluation of the problems and problem areas, and it is being provided the resources and necessary power to carry out its responsibility. Much if not most of the effectiveness of the use of evaluation of the nutritional program depends to a great extent on SAPLAN. It can see to it that the necessary standards are set up; it can assume responsibility for continual evaluation; it can carry out the necessary planning to insure that the information necessary for evaluation will be available. SAPLAN recognizes that the improvement of the nutritional level of the population is a multidisciplinary problem and that it is responsible both for the solution of existing problems and their prevention in the future. Concerted effort is exactly what is most needed and SAPLAN should make every effort to assume the important role which it is called upon to carry out.

It is necessary that the Voluntary Agencies of CARE and CRS with its operational unit of CARITAS together with AID/H participate in the investigation, planning and programming responsibilities of SAPLAN.

As will be discussed in Section VI of this report, it is necessary that coordination and integration be intensified between the timing of agricultural development plans and programs of GOH and AID/H with respect to the PL 480 Title II Feeding Programs.

C. Supervision and Control

The responsibility of the Voluntary Agencies with respect to the PL 480 Title II Feeding Programs is extremely limited. For example, once

the food is distributed to the primary storage areas, the responsibility of seeing that the food reaches the project is the responsibility of the participants in the project. Since most of the projects are created by groups with little or no resources, it is frequently difficult for them to obtain the allotted amounts. In part this may be due to the inability to obtain the required means of transportation from the primary storage centers. In other cases there may be a lack of administrative abilities in the project.

While there are occasional supervisory visits on the part of CARE, a review of the supervisory reports which had been made on the centers visited by the team indicate that every report stated that conditions were satisfactory. However, the team found that the conditions in many centers were far below the standards which were required and should have been reported as such in the supervisory report. Such passive inspection reports may be the result of concluding that the resources for correcting the deficiencies do not exist.

It is understood that some recommendations supposedly were made orally as they are not included in the written reports. Workers must have written records of recommendations made if follow-up is to take place. (See Table 36 for the Centers visited for which the supervisory reports were available).

At the feeding centers level there was one very important problem which should be definitely solved, that is, who has the responsibility for supervising what. There was evidence of too many persons supervising the same unit and, what is more important, giving conflicting recommendations.

Table 36

Supervisory Visits from CARE Personnel to Centers
from November 1976 - May 1977

<u>Feeding Centers</u>	1976			1977			
	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>
<u>STA. BARBARA</u>							
CI Pueblo Nuevo		X	X				
SERN Quimiston			X		X		X
<u>ATLANTIDA</u>							
Guardería, Ceiba							
CI Satelite, Ceiba			X				
<u>CHOLUTECA</u>							
Escuela							
ME Monsellor Turelo							
CI Pespire							
CR El Tablado, Pespire	X					X	
CI San Felipa, Pespire						X	
CI Danli							
<u>EL PARAISO</u>							
Escuela							
ME R. Colombia					X		

Source: Data obtained from available records.

There is some duplication of services. In some instances it was found that both voluntary agencies are helping the same people. This was confirmed by AID personnel who visited the project recently. There should be a mutual agreement as to who helps who.

Lists of projects by the Voluntary Agencies should be up-to date. A number of projects on the CRS list were found to be closed for as long as a year.

D. Warehouses and Storage

Conditions of 48 warehouses are summarized in Table 37. The larger warehouses such as those at San Pedro Sula are in very good conditions (Table 37) and, as indicated in supervisory visit made by AID officials, they are maintaining them in accordance with training recently received. However, the same cannot be said for the "bodegas" at different levels. It is important that warehouses be improved, that more supervisory visits be made, and that when conditions are not satisfactory or according to standards and regulations, they should be told so and reported as such. Supervisory reports and report forms which are available should actually show existing conditions and progress made.^{1/} Instead, several reports examined stated everything was satisfactory which was not true with respect to warehouses visited by the field team.

E. Transportation

More careful consideration must be given to the problem of transportation of foods to the local units. It was observed that there are times when the food is not available in the center because the local unit has been unable to provide itself with the necessary transportation. In some instances the supply was even used for other purposes (to meet the

^{1/} Appendix G

Table 37

Conditions of Warehouses and Storage Facilities for
Voluntary Agencies at Different Levels

<u>Item</u>	<u>Marin Storerooms CARE (4) CARITAS (3)</u>	<u>Recuperation Centers (7)</u>	<u>Day Care Centers (5)</u>	<u>Mothers and Preschool Centers (17)</u>	<u>School Feeding Centers (12)</u>
Food Stored:					
Warehouses	6	3	3	5	0
General Supply Storeroom	1	3	2	5	6
Other- Kitchen	-	-	-	4	1
Private Home	-	-	-	3	2
Schools	-	-	-	-	3
Facility:					
Well ventilated	7	7	4	17	9
Good light	7	7	4	16	9
Floor, walls - clean	6	6	4	13	7
Floor, walls - dirty	1	1	1	4	5
Food stored too low: (less 1-1/2 f)	7	6	3	13	4
Table	-	1	1	2	2
Floor	-	-	1	2	5
Pieces of wood on floor	-	-	-	-	1
Rodents and Roaches	2	5	2	16	9 ^{1/}
Food Spoiled	1	2	2	-	-
Food Containers:					
Left open	-	4	-	2	9 ^{2/}
Left closed	7	3	-	9	-

^{1/} None protected from rodents, etc.

^{2/} Containers in use were left open with the measuring utensils inside.

Source: Data collected by the Clapp and Mayne, Inc. Field Team.

needs of other groups which did have the transportation). If food does not reach units regularly, the children are not actually getting the food which has been assigned. It is understood that CRS did not want a larger allotment because there was insufficient transportation available to CARITAS.

Methods of providing transportation from the central storage center directly to the projects should be explored. Perhaps payment for transportation could be made in the form of some of the PL 480 Title II food to the provider of the transportation or from counterpart funds from Title I sales.

F. Food Handling and Sanitation

The facilities for preparing food are generally extremely inadequate or nonexistent. Virtually, no equipment exists and the workers must improvise. The sanitary conditions for preparing the food is bad leading to danger of food poisoning. Food is sometimes wasted due to lack of information as to how to purchase, handle and store the food, particularly perishables, if they are purchased with money given.

A good feeding program will get no place if it is not accompanied by a health and sanitation program, particularly designed to reduce the incidence of parasitic infestation. As pointed out in Section III, it is believed that much of the impact of the feeding programs may have been lost through parasitic infestation. Thus, a water supply program and a well-developed latrine building and food handling training programs should be coordinated with the feeding program efforts. Diarrhea can kill 30 times more frequently if it affects an undernourished population than if it hits a well-nourished group of persons.

The sanitation program should also extend to the centers themselves. For example, it is necessary to improve the storage facilities and their operation by giving training utilizing the standards already developed. In many feeding centers flies were observed in great numbers while the food was prepared and distributed. The presence of rodents and insects was obvious in many facilities (See Table 37).

G. Utilization of Food

In general, very good use of foods was observed, especially in terms of acceptance of food. At times numerous usual and unusual ways were devised to prepare new foods received so as to fit the eating patterns of the people. WSB and bulgur are made into tortillas and bulgur is combined with rice. It was consumed by humans but in some instances the amount assigned to the needy was shared with many others and the final amount received turned out to be much smaller than that assigned. It should be clear whether or not using the donated foods for making and selling foods to raise funds is correct. It might be better if other ways were devised to raise the necessary funds.

H. Proportion of Daily Requirements to Be Provided by Feeding Centers

In some instances, as in the case of day care centers, and recuperation centers, the amount of food served and the number of meals could provide the full nutrition requirements for the children. It is necessary that the meals be planned to meet the nutritional requirements of the group; the participants actually consume the amounts made available; and

an educational program to help mothers to continue and maintain the efforts made at the center be established.

In all the present programs (school feeding, MCH, and others) the amount of food and the conditions under which it is provided is decidedly too small to really be able to contribute a marked or measurable differences in nutritional improvement of the recipient. One glass of WSB, or such similar serving, is decidedly too small a contribution to make a significant difference in the health of the individual when the health and sanitary conditions among other factors minimize the possible good effect of the food itself.

At times, as is the case with the MCH projects and the school feeding programs, it is necessary to increase the amount of food allowed or stress efforts to supplement the food with local produce as well as modify conditions under which the food is served. In the table which compares the data weight-age of the children in schools with feeding centers and control groups, no significant difference is observed in favor of those receiving the supplement. It should not serve as a reason to comment that since it does not make a difference why not discontinue the program. Instead, it should be reason to stimulate increasing the program and obtaining of accurate data from a significant number of feeding projects and not a small sample as is the case in this study.

I. Records and Reports

It is clear from the discussions in Sections II and III that there was great difficulty in carrying out an evaluation of the feeding programs because of an almost total lack of records both at the central level and

at the feeding centers. In the next Section of the Report a proposed information system designed for obtaining data required for evaluation will be presented. Because a sampling procedure is being utilized, the proposed record system will have limited value as an operational and clinical tool. However, it is proposed that a simple information system designed for evaluation be implemented before trying to start a detailed record system designed for operational and medical purposes. If the evaluation record system is successful, then a full system should be introduced.

In any sound system, there must be agreement as to content, frequency, and classification of content of records and reports. Each agency should see to it that such records are adequately kept and consistently used for the purpose for which they were designed. For example, in designing a system there should be a standardization of such matters as classification of project and name, whether reporting is done of beneficiaries or actual attendance, with what frequency will reports be made, etc. It will also be necessary that the persons who would have the responsibility for keeping such records receive the minimum necessary training in order to assure that they not only know how to keep these records as simply as possible, but also know the importance of such records and how to use the information or make it available, whatever the case may be, to those who can really make use of it. Such is not the case at present.

At present, records and reports for corresponding months from different agencies and even within the same agency do not agree. Analysis must be made of reports and at times it is most urgent that narrative

information or explanations accompany data. For example, it is very difficult to understand how preschool centers can be 20,900 in February and only 3,400 the following month unless it is that what is being reported is the food being assigned to the program. Even then it implies that much was left over from previous distribution which was not used.

J. Interaction of the Feeding Programs and Medical and Clinical Activity

As seen in Section III, there were only a few instances where evidence was found of interaction between the feeding program and the medical profession with respect to individual cases. Part of the reason was lack of records. Another reason was the lack of an organized system for interacting. It is recommended that an attempt be made to set up a system for having the necessary interaction take place for those feeding activities which fall within the sample selected in the information system. The records will be available for medical and clinical purposes.

K. Training

The key to the implementation of all of the recommendations made in this Section is the training of personnel at all levels of the operation of the feeding program. It is beyond the size of this report to indicate the magnitude of the training program required and the curricula involved. It is, however, suggested that the training be concentrated in those centers which fall in the sample of centers selected for the information system.

Training must cover all aspects of the program including nutrition information, equipment use and maintenance, food preparation, purchasing,

food storage, food handling and sanitation, record keeping and the use of records and menu.

Training must be planned for personnel at all levels, adapting nature of information and content to the level of knowledge and responsibility at each level.

Training in most instances could be carried out in Honduras either by local qualified personnel if available or brought from outside. In some instances, however, individuals should be sent to INCAP or Puerto Rico.

L. Equipment

Except to a certain extent in the day care centers, the equipment is totally inadequate. Food cannot be prepared in the correct proportions and proper sanitary food handling unless very minimum equipment is available. The kind, amount and specifications must vary with the different projects but effectiveness of the program can not be assumed otherwise.

M. Knowledge of Source of Food

People served in most places did know the nature of the participation of the voluntary agencies. Information was posted to this effect. None of the beneficiaries, however, indicated they knew where the food comes.

N. Review of the Conditions Observed in Various Feeding Programs

1. Mother, Infant and Preschool Children Centers

a. In general, storage conditions and facilities for the preparation of food are unacceptable and did not agree with specified regulations for operations which had been distributed.

b. The number of authorized recipients is not the same as actual number served. At times, a small amount of food is served to many that show up; at others, the authorized enrollment is very different from the actual attendance.

c. It is amazing what the women can do in terms of food preparation with equipment and facilities including water available. Except in Tegucigalpa, there is very little supplementation of donated food except at day care centers and recuperation centers where funds for them are provided.

d. There is great need for accurate, continuous and exact records to be kept. This requires adequate training of workers on how and why it should be done as well as providing supervision. Information which is available in the records should be used to the best advantage of the children themselves as well as in terms of evaluating impact and development of the program. Height and weight records are not kept or are kept sporadically and the information not used at all especially in terms of helping the children themselves or evaluating the program.

e. Minimum health conditions in terms of food handling, food habits, pests control, must be specified and required to be followed in order to assure that food fed to the child is used to the best advantage, and feeding is not made ineffective with possible infestation.

f. There is need for an intensified, continuous educational program fully based on the existing limitations and problems both in terms of nutrition and sanitation.

g. There must be specific information on pregnant and lactating mothers separated from data for preschool children. Very small numbers of such women are now apparently served.

h. Greater emphasis must be given to expanding feeding programs for vulnerable groups with greater emphasis to those not presently reached now.

i. Need to train personnel in food purchasing, food storage and food handling.

2. School Feeding Centers

a. Facilities, food preparation and food handling without equipment demand very serious consideration. Minimum standards and requirements should be set up and complied with. This is especially so if the government is to look at these feeding programs as being the initial stage in a long term effort to provide a real school lunch program for school children in Honduras.

b. Careful consideration should be given to the extent to which the present demands on the teacher to help in the school feeding program is not being carried out at the expense of the educational activities.

c. Intensive planning is apparently required to assure that a supplementation of the present snack is made available through community effort or governmental action in order that the program will make a real impact on the school population. Under present sanitary conditions a glass of WSB milk, at most times very diluted, cannot be expected to make any more impact than to merely appease hunger.

d. The government should ensure that new schools have at least limited facilities for feeding programs or school lunch in the building.

e. There is an urgent need for a practical continuous training program of teachers and voluntary help with special emphasis on standardization of recipes, food handling, sanitation and nutrition.

f. A minimum amount of food records must be kept, but kept well, with the necessary periodicity and continuity in order to permit future evaluation of the impact of the program. Information obtained must be used as a basis not only for evaluation but also for action that will lead to greater improvement of the health of each child.

g. There are no standard proportions to follow in the preparation of donated food. Only the amount of the dry food per authorized person is indicated but not the amount of water to be added (except in one instance where recommended proportions did not agree). No standard measurement is possible with the available equipment and facilities.

h. It is indispensable to plan and carry out a nutrition education program for the community.

i. Minimum equipment should be provided and necessary training offered to insure the proper handling and maintenance of such equipment.

j. Coordination efforts of all related agencies and organizations is needed.

k. It is necessary to reorganize and stress the importance of considering school feeding as an educational activity and not merely a feeding program. Periodic evaluation of its effectiveness in improving the health of the children using at least height, weight and age criteria, should be made.

3. Food for Hospitals and Institutions

a. Food allowance should take into consideration the actual number of people which will be served in institutions, including both participants and employees utilizing the donated food in preparing their meals.

b. As in all other projects, food was served in diversified dishes which were very well accepted.

c. Workers (social worker and others) looked for nutrition information on their own to try and pass it on to mothers. Government agencies, especially the Ministry of Health Department of Nutrition, could be of great help in training these workers or helping them being trained, and in the nutrition education program similar to that which they will provide workers in the voluntary agencies. The workers in the hospitals which the Team visited have never received any training.

d. Evaluation of this program as well as all others should be made. The evaluation should analyze: (1) length of stay; (2) whether they are from families being served in other feeding projects or not; (3) nutritive value of menus; and (4) other similar indicators.

4. Food for Work Projects

a. Food for a work group should not be allowed to be stored in the home of the chairman or any member of the group.

b. An annual report of the project should be prepared not merely stating pounds of food and recipients but also objectives, goals and achievements in the different types of projects being carried out. Results would be most valuable.

c. In the Food for Work projects no one knows how much of the food actually goes to the more vulnerable groups in the families and how much goes to the father or other members of the household. Under present working conditions, decisions should be carefully weighed as to whether to emphasize these projects or to emphasize community help and actually serve the food to the most needy group.

d. Consideration should be given to whether to continue assigning food in equal amounts to every family or do so on the basis of number of members in the family, and especially so to certain age groups.

e. Even though it is recognized that the cost of the project would be increased, the possibility of handing out food, or certain foods, in family size packages even if some charge is made, should be considered.

f. Supervision is needed not only in terms of amounts of foods but also the sanitary conditions and facilities available in the store-room and in the process of distributing the food. More consideration should be given to food storage and food handling.

g. There was no evidence of supervision either in terms of the work being done, records kept, storage or use of food. Food was received by one person assigned for the entire group, and usually individual family distribution was made in the community.

n. Transportation of food to the distribution center, to the community itself, and storage constitute major problems.

V. PROPOSED INFORMATION SYSTEM

A. Introduction

As indicated in the preceding section, a standardized system of reporting designed to record significant data and observations and to permit inter-period and other meaningful comparisons is necessary.

A series of indicators was constructed during the present survey to help evaluate the impact of PL 480 feeding programs. These were also designed to be used as the basis for the nutrition information system for Honduras. Initially the system can be applied on a sample basis statistically to measure the impacts of the feeding programs; once working satisfactorily the system can be expanded to evaluate all operating units and subsequently used for clinical purposes.

The indicators are identified and the results of their application during the present study are described below.

B. Summary of Baseline Indicators Used and Recommended^{1/}

1. Hemoglobin Values

- a. Where Recorded: Day Care Centers, SERN Recuperation Centers, Mothers group and, if possible, in a sample of school children.
- b. By Whom: Health Department Personnel
- c. Frequency: At Recuperation Centers upon entering and before discharge as a minimum. In all other instances at least once a year and, if possible, 2 times a year for comparison within the year.
- d. Importance: Determine nutritional status of children in terms

^{1/} Forms for collecting information are at the end of this chapter.

of hemoglobin level and its relation to the control of parasitic infestation

2. Number of Participants Compared to Authorized Beneficiaries

- a. Where Recorded: At all projects
- b. By Whom: Attendant in charge
- c. Frequency: Daily
- d. Importance: Determine real amounts of food which should be allotted. The availability of such information will help evaluate the distribution system and improve the system of allotment, and make better use of limited resources.

3. Age-Weight Record

- a. Where Recorded: All projects and control groups at preschool and school children
- b. By Whom: Person in charge who has necessary training on how to do it correctly; teacher, nurse aide, person in charge or trained voluntary worker
- c. Frequency: Preschool centers and schools at least 2 times a year. Day care centers every three months. Day care centers, if possible, every month
- d. Importance: Determines nutritional status of participants and change in status within specified period of time. Relate to percent expected gain.

4. Birth Weight Record of Children

- a. Where recorded: Hospitals, if possible, including rural area
- b. By Whom: Attendant at labor or person responsible for record
- c. Frequency: At birth
- d. Importance: Compare birth weight with that of normal children.

5. Gain in Weight of Mothers During Pregnancy
 - a. Where Recorded: Health units or projects serving mother during pregnancy
 - b. By Whom: Nurse or assistant well trained
 - c. Frequency: At least three times a year or when she comes for medical supervision
 - d. Importance: Compare gain with expected normal gain
6. Height-Weight

Same as for age-weight being assured that the persons are trained on how to record height correctly
7. Growth Chart (INCAP)
 - a. Where Recorded: Day care centers, Recuperation centers, and if possible a sample of preschool children and school centers
 - b. By Whom: Attendant trained
 - c. Frequency: At least every three months
 - d. Importance: Indicates growth progress of child
8. Nutritive Value of Exact Amount of Food Served
 - a. Where Recorded: At all projects
 - b. By Whom: Person in charge or person withdrawing food from storage or authorizing withdrawal
 - c. Frequency: Record kept everyday but sampling decided by nutritionist or well trained person
 - d. Importance: Tells percent of recommended allowances actually being served according to standard agreed upon by Ministry of Health

9. Amount of Food Actually Being Served Per Family at Work Projects

- a. Where Recorded: Where food is distributed. Record must include information on number of persons per family.

C. Training Required

In all instances the persons responsible for maintaining the records must know the importance of the information and the procedure and how to do that which is her responsibility to record.

D. Summary of Baseline Data Collected: May 1 - May 25, 1977

1. Hemoglobin Values

- A total of 90 percent of children at one day care center, where records were maintained, had readings of normal values. No similar data were available for other groups. It would be most valuable.
- There was some evidence of favorable increase when there was more than one value for the same person at different periods.

2. Authorized Participants Compared to Number Actually Attending

- At recuperation centers more persons could be served. Only 69% of authorized enrollment attended.
- Only 42% attendance at preschool and lactating centers.
- At schools and at other centers attendance at times was greater than number authorized.
- Number of pregnant and lactating mothers assisted was very small. Attendance was too irregular. Number of participants must be increased in order to make a real contribution.

3. Weight for Age

- Majority of the preschool children weighed were malnourished for their age (53% at day care centers, 96% at recuperation centers, with 50.8% as 2nd degree malnutrition and 5.9% as 3rd degree malnutrition). A total of 86% of children weighed at feeding centers and 95% at school feeding centers were malnourished.
- Control groups are just as bad as those of children receiving food which implies not enough is being contributed to really make any impact. Best off were children at day care centers where the supplementary feeding was more complete.
- Results are similar to those obtained by nutritionist at CARE.
- Weight-age record over a period of time (8 months) showed definite improvement at day care centers.

4. Birth Weight of Children

- On the basis of records available of 1,224 children born in two urban hospitals, only 18% weighed less than 6.2 lbs. (It is doubtful that the same condition prevails in the rural areas.) It should stress the importance of preventing the child from becoming malnourished after birth.

5. Gain in Weight of Pregnant Women

- Significantly too low indicating need for greater help to mother pregnant and lactating. Over 54% had increase in weight of less than 10 lbs. (Probably part of the explanation why the birth weight of children tends to close to normal is that it is utilizing the mother's resource during pregnancy.)

6. Height-Weight

- Height-weight indicator shows a lesser degree of malnutrition as is expected but likewise describes a serious nutrition problem: 70% school children; 52% children at day care centers; 78% at recuperation centers; 47% at preschool feeding centers; and 63% for control groups.
- Government should decide whether this indicator in age-weight will receive greater consideration.

7. Nutritive Value of Meals

- Analysis of two days' menu indicates adequate protein but deficient in calories as well as in Vitamins A and C.
- Periodic evaluation should be made of menus served.

8. Attendance at School

- Data is available on attendance. It should be analyzed to determine possible impact of feeding programs on school attendance. Analysis of school attendance records indicates that the feeding programs probably assist increasing attendance. Poll of teachers also support the hypothesis.

9. Food Alloted and Utilized

- Food alloted and utilized is not enough to make a nutritional impact.

10. Amount of Food for Food for Work Projects

- Food for Work Projects are not being provided sufficient food to make a major nutritional impact and not on a family size basis.

E. Recommended Procedure for Sample Design

1. Enumerate the centers by category where the program is operated.
2. Group them in Departments and Municipalities.
3. Subdivide the centers into urban and rural in each Municipality.

4. Estimate the number of beneficiaries in each center and make a list as follows for each category such as "Lactarios," "comedores infantiles," SERN, "guarderías," etc.

<u>Dept.</u>	<u>Mun.</u>	<u>Urban- Rural</u>	<u>Category</u>	<u>Center</u>	<u>Ident.</u>	<u>Number of Beneficiaries</u>	<u>Acum.</u>
I	1	Urban	1	A		50	50
			2	B		35	85
		Rural	1	C		25	110
	2	Urban	1	D		40	150
	3	Rural	1	E			
II	...	...	...	...		...	...

XVIII	...	...	...	...		...	...

5. Select the following numbers of centers in each category to obtain approximately the numbers of beneficiaries indicated:

	<u>Number of Centers in Sample</u> (m)	<u>Expected Number of Beneficiaries in Sample</u> (n)
Lactario	5	150
Comedores Infantiles	5	150
SERN	3	90
Guardería	2	120
Orfanato	1	90
Others	1	<u>100</u>
		700

The total sample may vary between 600 and 700. The minimum must be 500.

6. In each category select the Center by using the Systematic Random Sampling Procedure with probability in proportion to the size of the center as follows:

For example: Lactario

Obtain the total number of Centers and the total number of beneficiaries.

Center	Beneficiaries N	Accumulated Beneficiaries ΣN
A	30	30
B	25	55
C	40	95
D	50	145
...
...
	1,500	ΣN 1,500 (assumed for sample)

We need to select 5 groups or Centers to divide the total number of beneficiaries into 5.

$$\text{Thus, } \frac{\Sigma N}{m} = \frac{1,500}{5} = 300 = (i)$$

Thus, (i) = 300 is called the interval of selection.

Select at random (putting the pencil point on the Random Table^{1/})

^{1/} Example of one page is given in Appendix K.

a digit number between 001 and 300. Suppose the Random Number comes out to be 124. Then look for the Center where the accumulated number is equal to or closest to 124. In one case, Center D, it has 145 accumulated, and Center C has 95 accumulated. Therefore, 124 falls closest to Center D. Thus, the Center D is used in the sample.

The next Center in sample will be the one where the number accumulated is 300 (equal to interval i) more than 124. That is, $124 + 300 = 424$.

This way, successively, the next Centers are 300 more beneficiaries away. That is, 724; 1,024; and 1,324.

In each of these Centers take as many beneficiaries as are available in such a way that the one selected in the sample has more or less 150 beneficiaries.

7. Select the sample or Centers in other categories following the same procedure as for Lactario.

8. School feeding: For School Feeding projects, the sample size recommended is to obtain approximately 1,000 beneficiaries in 20 school units.

The selection of the 20 schools would be by the same sampling procedure (Systematic Random) as in the case of Lactario project.

A list of schools and the number of beneficiaries must be made and the total accumulated and divided by 20 to obtain the interval. This method would provide a sample representative proportionately of the urban rural and the geographical areas.

9. For comparison with this Control School population, approximately the same size of sample of non-beneficiaries nearest to the centers

selected in sample should be taken.

10. Food for Work: The same procedure as in schools would be followed for getting the sample for the Food for Work project. The sample size would be approximately 300 beneficiaries in 5 centers.

Forms for Collecting Information

Análisis Antropométrico y Hematológico

Región: _____
 Pueblo: _____

Programa: _____
 Grupo: _____

Núm. de Record	Edad (años)	PESO*						ESTATURA**				*HEMOGLOBINA			HEMATOCRITO		
		Ibs.	3ro.	2nd.	1ro.	Normal	Sobre	Plgs.	Baja	Normal	Sobre	gms.	Baja	Normal	%	Bajo	Normal

* Grados de desnutrición según el peso

Mayores de 110% - gordos

De 91% a 110% - normales

De 76% a 90% - desnutrición - Grado I

De 61% a 75% - desnutrición - Grado II

Menor de 60% - desnutrición - Grado III

** De acuerdo a clasificación de INCAP

*** 10 gms. o menos se considerará baja

30 - 39% de hematocrito se considerará normal

Visita a Clínicas de Salud

Resumen Análisis Antropométrico y Hematológico*

Sub-Región: _____

Programa: _____

Pueblo : _____

Núm. Total de Casos: _____

Grupo	Núm. de Casos	PESO						ESTATURA						HEMOGLOBINA				HEMATOCRITO			
		Bajo		Normal		Sobre		Bajo		Normal		Sobre		Bajo		Normal		Bajo		Normal	
		Núm.	%	Núm.	%	Núm.	%	Núm.	%	Núm.	%	Núm.	%	Núm.	%	Núm.	%	Núm.	*	Núm.	%
Madres																					
Niños de 0 - 5 Años																					
Escolares																					
Adultos																					

* Bajo incluye los clasificados en 1ra., 2da., 3er grado de desnutrición

Informe de Visita a Centros _____

Programa _____

Pueblo _____

Encargado Centro	Hora que se dá el servicio De _____ a _____	Fecha de Visita
------------------	--	-----------------

	COMENTARIOS
<p>I. <u>FACILIDADES DE COCINA:</u> cantidad y condiciones</p> <ol style="list-style-type: none"> 1. Piso, Paredes y Ventanas 2. Gabinete y áreas de trabajo 3. Estufas o Fogón 4. Equipo -ollas, cacerolas, cubiertos, platos, vasos- 5. Fregadero 6. Otros utensilios <p>II. <u>PERSONAL</u></p> <ol style="list-style-type: none"> 1. ¿Quién sustituye al encargado en su ausencia? _____ _____ 2. Supervisión - quién, frecuencia, informes _____ _____ 3. Otro Personal -quien, número, preparación, certificado de salud _____ _____ 	

	COMENTARIOS
<p>4. Adiestramiento -en qué, frecuencia</p> <p>III. <u>ALMACENAJE DE ALIMENTOS</u>: tarimas, tablillas, nevera, protección de sabandijas, ventilación</p> <p>IV. <u>MENUS</u>: quién los planea, escritos se siguen ejemplos, quién compra y cuales</p> <p>V. <u>PREPARACION DE COMIDAS</u>: A tiempo, apariencia, ración, sobrantes.</p> <p>VI. <u>SERVICIO DE ALIMENTOS</u>:</p> <ol style="list-style-type: none">1. Atractivo2. Personas autorizadas: empleados, beneficiarios, otros.3. Personas servidas: empleados, beneficiarios, otros.4. El menú se sirve: igual a todos. <p>VII. <u>ELIMINACION DE DESPERDICIOS</u>: Condiciones</p> <p>VIII. <u>FREGADO</u>: Procedimiento</p>	

IX. ACEPTACION Y USO DE ALIMENTOS

Alimentos	Enumere en orden de Preferencia	Se consumen las cantidades asignadas		Cómo se preparan?
		Sí	No	
a. Leche	()	()	()	
b. Aceite	()	()	()	
c. Avena	()	()	()	
d. Harina de Trigo	()	()	()	
e. Otros	()	()	()	

X. REGISTROS: Al día, confiablesXI. LABOR EDUCATIVA A BENEFICIARIOS: frecuencia, quién, actividadesXII. COMENTARIOS Y RECOMENDACIONES GENERALES

ENTREVISTAS INDIVIDUALES

Centro : _____ Pueblo : _____
 Programa : _____ Hogar : _____

I. ACEPTACION Y USO DE ALIMENTOS

Alimentos	Enumere en orden de Preferencia	Se consumen las cantidades asignadas		Cómo prepara los alimentos?
		Sí	No	
a. Leche	()	()	()	
b. Aceite	()	()	()	
c. Avena	()	()	()	
d. Harina de Trigo	()	()	()	
e. Otros	()	()	()	
	()	()	()	
	()	()	()	

II. ALMACENAJE ALIMENTOS: cantidades condiciones

III. ¿Ha recibido orientación sobre cómo preparar los alimentos:

Sí No

¿Quién se la ofreció y sobre qué?

IV. SUPERVISION MEDICA

1. ¿Asiste a la Clínica? Sí No

2. Frecuencia:

VI. A STRATEGY FOR PLANNING AND PROGRAMMING THE UTILIZATION OF
PL 480 TITLE II FOOD RESOURCES IN HONDURAS

A. The Present Process of Programming PL 480 Title II Food Resources and Information of the Programming

1. The Initiative for Laying Claim to Title II Resources

The initiative for proposing, programming, and instituting feeding programs and obtaining the sanction of the COH has been with the voluntary agencies. The USAID role has been more of a reactive one. It has not maintained any relationship with governmental agencies on matters of food policy or operations. Rather, it has worked with the voluntary agencies in approving, modifying and supporting their activities and in overseeing compliance of the Vol/Ag operations with AID requirements. The current USAID leadership (at least in Honduras) appears to be moving toward a more active role for the USAID, particularly with its suggestion for the creation of a working group to develop a consensus on food programs. This would appear most advisable for matters of a policy nature while leaving the operational matters to the individual agencies.

2. Present Program Emphasis and Need for Future Policy Orientation

The current feeding programs have been in process for a considerable period of time. An underlying expectation has been that they would continue indefinitely in the future so long as the need for such continued food supplies were available. Thus, principal concentration has been on problems of day-to-day and year-to-year operation rather than focusing on specific objectives to be met over a period of time. It would appear advisable that AID and the voluntary agencies define their immediate and longer range goals more specifically, including any pertinent institutional development

requirements for the government to assume full responsibility for planning and administering feeding programs in governmental institutions, and to establish indicators for measuring progress toward their goals. Where applicable, the greater participation of the GOH in policy formulation, programming and operations should be projected. The number of beneficiaries to be served should emerge from the plans developed in terms of need, objective sought, priorities and program plan.

3. Present Relationships with GOH Regarding Supplementary Feeding Programs

It is well recognized that the GOH at present does not have a policy to govern supplementary feeding programs nor a statistical base on which to base policies and programs. The creation of SAPLAN has the development of such a policy as one objective. The initial results SAPLAN's work will probably not be available for another year. As a new agency with limited financial and human resources it will face many obstacles in gaining acceptance, influence, and leadership on nutrition programs. (Probably in the future, if successful, it will become the coordinating center for food inputs by international agencies.) It would appear to require support from outside agencies. The establishment of working relationships by the voluntary agencies and AID/H with SAPLAN would be an indication of such support. Exploration with SAPLAN of technical assistance needs beyond that to be supplied by INCAP is suggested.

The Ministry of Public Health provides financial support to both CARE and CRS. CARE operates through governmental institutions whereas CRS operates through CARITAS, a non-governmental institution. The role of the Ministry in relation to CRS/CARITAS is limited to this financial assistance and keeping informed of CRS/CARITAS activities. The financial support to

CRS has remained stable over the past several years although the Subsecretary indicated the Ministry's overall budget had been increased 150% in the past three years. On the other hand, transportation, warehousing and other local costs have been increasing and probably will continue to increase. CRS/CARITAS, in fact, had to refuse an increase in food supply offered by AID due to their inability to finance the handling costs.

On the other hand, the CARE programs administered by the Ministry of Public Health institutions are basically operated at local levels with no direction or supervision from the central level. There is need to develop a long range plan to develop a structure within the Ministry capable of planning and administering its feeding programs.

The Ministry of Education has SMAAN to administer its school feeding program for which it receives a budget of 300,000 Lempiras which has been stationary for some time. It was the Director's impression that the program was not given high priority in the Ministry and would disappear should the US provided food be cut back significantly.

From the above it can be noted that while importance has been attached by the government recently to nutrition and food policy planning, financial assistance on the part of the GOH to the feeding programs in operation has remained stationary. It is probable that little attention has been given to these operational programs which apparently have lower priorities than the expansion of the health delivery systems or the construction of schools. The relatively limited participation of Ministry officials in program planning is probably a contributing factor.

4. Constraints to Program Operations

The major constraint to current program operations or to any future program expansion has already been mentioned, the limited financial

assistance to cover local operating costs. Others which might be mentioned, as indicated elsewhere in the report, include the availability, cost and adequacy of warehousing space particularly once outside the distribution system of the voluntary agencies; a sufficient number of supervisory personnel; transportation including the high costs involved in getting food to the more remote areas. In the latter instance participating agencies or groups have difficulty meeting their responsibility in transporting the products for distribution to the beneficiaries resulting in irregular availability of food supplies.

5. USAID Program Projections

The USAID annual budget submission projects the number of beneficiaries (in thousands) by program for the period 1979-83, as follows:

<u>Activity</u>	CRS				
	Y e a r				
	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>
MCH	30	30	30	30	30
FFW	25	25	25	25	25
	CARE				
MCH	100	100	120	140	160
SF	150	125	100	75	50
OCF	4	4.5	4.5	4.5	4.5
FFW	20	22.5	25.0	25.0	25.0

It is recognized that these figures are for planning purposes and are subject to change as circumstances justify. Nonetheless, they do highlight certain situations. The CRS program is planned to continue at its current level (discussed elsewhere in the report). For CARE it would

involve a substantial increase in the MCH activity and a similar decrease in school feeding programs.

B. Proposed Strategy for the Utilization of PL 480 Title II Food Resources in Honduras

1. The Need to Develop a Long-Term Strategy at this Time

a. The Initiation of Planning in the Field of Nutrition

As pointed out above, SAPLAN was created for the purpose of coordinating and planning programs dealing with nutritional problems in Honduras. It is expected to develop a Plan during the next twelve months. Essentially, there are two important diagnostic areas involved in the preparation of a plan. One deals with the demand side, namely, the condition of the variables which are to be attacked. The second deals with a diagnosis of the resources which can be brought to bear on the problem.

It is generally agreed that the raising of the nutritional level of a population requires resources which will enable an increase on food intake—with proper nutritive values—and improved sanitation.

The sources for increased food intake are essentially four in the case of Honduras: (1) locally grown food by the agricultural sector; (2) imports of food through the normal commercial channels requiring the use of foreign exchange; (3) imports of food distributed through commercial channels but requiring no foreign exchange (PL 480 Title I); and (4) imports of donated food such as under PL 480 Title II.

In preparing a development plan for the improvement of the nutritional level of a population, it is therefore necessary to examine the probable level of each of these sources. It should be pointed out that the probable levels of each of the resources tend to interact with one another. For example, if a country could be completely self-sufficient

in food production under existing international comparative cost conditions, the level of food imports could be expected to drop. On the other hand, the presence of a source of supply with zero foreign exchange burden (PL 480 Title I) could inhibit the expansion of the domestic supplies of food by removing the monetary incentive for expansion. Likewise, it is conceivable that donated foods, if not carefully geared to a target group which possesses little or no effective demand for food may also act as a ceiling to the expansion of local food resources. Therefore, it is necessary to consider the impact of a change in one of the food resources on the other three.

The U. S. Government acting through AID and AID/H has control over an important segment of two of the sources of food supply in Honduras, namely, (1) imported food requiring zero foreign exchange (PL 480 Title I); and (2) donated food (Title II). Therefore, AID/H may play an important role in the shape of the planning and programming which will result from SAPLAN's efforts. ^{1/}

If in the process of carrying out the diagnosis of future supplies of food SAPLAN obtains the data on AID/H (CRS and CARE) Plans with respect to donated foods, it will find a rather static picture (see paragraph A-5 above), MCH goes up and SF going down. The effect might well be a reduction or at least a stretch-out of the goals of improving the conditions of the most vulnerable group in the economy in view of the high rate of population growth.

^{1/} It is recognized that AID/H through control of other resources by means of monetary and commodity grants and loans, has other important impacts on the planning and programming of SAPLAN.

It is our opinion therefore that, as mentioned in the memorandum of the Director of AID/H,^{1/} it is of great importance for AID/H to review and re-think its policy and possible programming of PL 480 Title II resources at this time in order that it may provide guidance in the area of resource availability to SAPLAN rather than merely continue its reactive role.

The timing of such an approach is especially appropriate at this time because of: (1) the existence of the study evaluating the nutritional impact in Honduras of PL 480 Title II feeding programs; (2) the change in the world food situation; (3) the recent recognition of the importance of nutrition in economic development; and (4) the possibility that the Honduras program could become a demonstration example with the possibility of replication in other countries.

2. The Importance of Nutrition in Economic Development

Theories of economic growth have been evolving over several hundred years starting with Adam Smith's exposition of the non-classical theory of "laissez faire." Since then a variety of theories have developed including that of Marx involving the need of intervention on the part of the working classes, the theory of innovation put forth by Schumpeter, the need for governmental stimulation of demand at least for cyclical recovery on the part of Keynes. As the post World War II era of international assistance was initiated, there were essentially two theories in practice, namely: (1) that the growth was directly related to capital investment--the Harrod-Domar model--, and (2) the need of technical assistance from the more advanced countries to the LDC's as in the Point IV

1/ Appendix B

programs. The Marshall Plan in Europe seemed to demonstrate the correctness of the Harrod-Domar model.

However, when this effort was applied to the LDC's the take-off did not develop as it did in the case of the European and Japanese economies. In his classic book, "A Theory of Economic Growth," Sir Arthur Lewis pointed to not only need for capital but also the importance of existence of other resources, especially human resources. Almost simultaneously, Theodore Schultz at the University of Chicago, was carrying out studies in expanding the classical Cobbs-Douglas formulation of production from the two determining variables of capital and labor to include investment in human resources in terms of investment in education. Thus, it becomes clear that one of the reasons that the Harrod-Domar model worked in the case of the European and Japanese economies was existence of a well trained and educated labor force which had already operated advanced industrial economies before World War II. It also explains why it did not work when applied to the LDC since the proportion of the labor force with the required educational attainments was either negligible or nonexistent.

But educational attainment is only one aspect in the quality of the labor force. Possibly a more important factor is the mental and physical condition of the human resources of the country. This factor becomes important in accelerating the rate of economic growth because a modern economy requires ability to: (1) learn; (2) possess the physical stamina required in an industrial society; and (3) respond to new and innovation demands on the part of the labor force.

While public health clearly plays an important role in improving the mental and physical condition of a population, recent theories have

concluded that level of the inhabitants nutritional condition, especially in the earlier years, has a considerable impact upon the mental and physical state of the human resources of a country. To quote from World Bank specialists working on the relation of economic development and nutrition: "Since 1973 the World Bank has been examining nutrition in the context of its own programs . . . ^{1/} The new premise is that "Only in recent years has the problem of malnutrition as a development problem—as not only a consequence of underdevelopment but a contributing factor to it, a drag on the potential from which better nutrition might be provided." ^{2/}

The reason that malnutrition is now being treated as a cause for slow economic growth stems from research by nutritionists on the effect of malnutrition on the development of mental and physical condition of the person at various ages. For example, it was found that malnutrition during the fetal and first two years of life have an important consequence on the mental capacity of the individual during the rest of his life, thus reducing the mental ability of the labor force wherever the level of malnutrition is serious. ^{3/}

Because of the interaction of disease levels and malnutrition, the productivity of a member of the labor force tends to be significantly lower when the level of malnutrition is high. As the World Bank researchers have pointed out: ^{4/}

^{1/} Preface by Alan Berg in Malnutrition and Poverty: Magnitude and Policy Options, by Shlomo Reutlinger and Marcelo Selowsky, World Bank Staff Occasional Papers, Number 23. 1976

^{2/} Ibid

^{3/} Alan Berg, Estudios Sobre Nutrición, p. 21

^{4/} Op. cit.

Health and nutrition interventions have an impact on human capital formation, with implications for future earnings of individuals and the growth in gross national product. The nutritional status of infants is perhaps the most important policy-induced determinant of the individual initial physical condition, which in turn determines the effectiveness of further investment in human capital. Certain types of malnutrition during the working years appear to have a crucial influence in an individual's level of productivity.

For additional quotations relating to malnutrition as a cause of under development, see Appendix J.

3. Impact of Nutritional Findings on AID/H Strategy for PL 480 Title II Feeding Programs

The conclusions reached by the team of nutritionists based on the data given in Section III is that amount of food provided under the PL 480 Title II feeding programs had virtually no impact on level of malnutrition, except in day care centers and recuperation centers where three meals and two snacks are given.

While improving the level of nutritive intake is not the only objective of the use of PL 480 Feeding Programs, it is believed that it is of great importance even under the existing program projections presented previously in this Section. The bulk of the beneficiaries fall into the categories where nutritional improvement is hoped for.

Faced with the conclusion that the level of nutrients provided by the PL 480 Title II feeding programs is too small to have a nutritional impact, there appear to be two alternatives from a programming standpoint. The first is to maintain the same level of PL 480 Title II and reduce the number of projects or even eliminate certain programs served while increasing the food allotment to the remaining projects to the point where a nutritional impact will be noticeable.

The other alternative is to expand the program, not so much by adding a higher number of beneficiaries, but by providing a greater amount

of food per beneficiary. It is our recommendation that the second course of action be taken while simultaneously determining methods for providing the resources to overcome the inefficiencies identified in Section IV of this report.

However, the recommendation for an expanded program does not rest solely, or directly, on the desire to improve the well-being of the people through additional food supplies. It rather rests on the need to improve, in the long run, the quality of human resources which is clearly one of the most vital factors which determine the rate at which economic growth takes place. This improvement, as pointed out through the various quotations from recent studies relating nutrition to economic development, is not only related to the improvement of the individual's ability to be trained in skills required by the more complex economy, but also because his life span as an active member of the labor force will be lengthened and therefore he will be an active member of the economic labor force for a longer period of time.

4. Integration with AID Programs

In recent years AID policy has called for priority to be given to education, community development and agriculture. With the recent recognition of the importance of nutrition, several countries have developed nutrition sector programs which have been supported by AID loans and even grants. Honduras is one of the countries to have completed arrangements for such an activity by means of an AID/H Sector Loan in Nutrition. Thus, an expanded PL 480 Title II feeding program in Honduras can be considered complementary to the existing nutritional programs in the sense that it will tend to help fill the resource gaps, at least until the time that the

agricultural goal of food self-sufficiency is met.

While we have neither had the opportunity of reviewing the Honduras Agricultural Sector Plan and the support being given it by AID/H, nor the table of food balances, previous experience with the Honduran agriculture sector would indicate that it will be some years before a statistical food balance is reached.

Even after a food balance is reached in a country some sort of machinery is required to reach the vulnerable groups, namely, the inhabitants with a high degree of malnutrition. Again, quoting from the Preface of the World Bank research monograph on Malnutrition and Poverty, "the authors demonstrate that the malnutrition problem is not going to be solved simply by solving the aggregate food problem." ^{1/}

"Deliberate policies and programs are called for, especially among nutritionally vulnerable groups. Of the alternatives examined, food programs are regarded as more cost effective than general food subsidies and outright income redistribution." "The need for continued special food programs in order to reach the vulnerable sections of the population after food balance is achieved is that of the United States. The United States is the largest exporter of agricultural products in the world and yet it is spending over \$6 billion a year for food to reach vulnerable groups."

An expanded PL 480 Title II program in Honduras may be looked up as being complementary to the various AID/H programs in the following manner:

1/ Ibid. page i

a. Improving the level of human resources in the long run by giving priority to expanding the availability of nutrients at the fetal and first several years of life which are considered the most critical years.

b. Making it possible to initiate such a step without waiting for the agricultural sector to achieve the needed self-sufficiency.

c. Expanding the institutional development of food programs designed to reach the most vulnerable target groups since the lessons given both by the U. S. experience and research by the World Bank indicate the need for continuing food programs aimed at target groups. In effect, as the U. S. withdraws its provision of PL 480 Title II food with the appearance of food balance, there will be available the machinery for a continuation of such targeted programs.

5. Support Requirements for Expanded Title II Feeding Programs Recommended

As pointed out in Section IV of this report, there are many deficiencies in the operation of the existing PL 480 Title II feeding programs which can only be intensified with an expanded program unless some action is taken to solve them. An expansion in the PL 480 feeding programs must be accompanied by programs which will make the expansion feasible as well as correcting the deficiencies now in existence. In summary, action must be taken to:

- a. Improve and expand storage facilities including their wider distribution throughout the country.
- b. Make transportation available to distribute the foods to existing centers.
- c. Provide equipment for preparing and preserving the food.

- d. Institute training programs at all levels dealing with the aspects of supervision, food storage and handling, food preparation, record keeping, menu preparation, food purchasing, knowledge of nutritive value of various foods, control of vermin, etc.
 - e. Introduce the basic information system first for evaluation purposes and then for operating use such as medical referral and implementation of medical recommendations.
 - f. Expand the level of the supplemental foods provided to the feeding center through local initiative such as school gardens, greater donations from public and private resources.
6. Level and Rate of Expansion of PL 480 Feeding Programs Proposed from the Standpoint of Nutritional Impact and the Long Run Improvement in Human Resources

In collaboration with the VolAgs and SAPLAN it should be possible to set a target for the reduction of the level of malnutrition in the population to a specified level during the next 20 years. Twenty years is chosen because, according to nutritional theory, the first true impact of improved levels of nutrient intake will not be felt to any extent in the labor force until those persons being exposed to the expanded program during the fetal period and the first two years after birth enter the labor force in any magnitude. Improved nutritional intake among older individuals will have a smaller relative impact on the quality of the labor force. As a starting point, a target achieved by a similar country but with higher levels of nutritional intake and human resources levels might be used as a first goal or target. An example might be to achieve the nutritional level of Costa Rica.

Priority in providing a higher level of supplemental food might be given to those centers which are included in the sample chosen for initiating the information system. Thus, for example, it might be desirable to take a 50% sub-sample of the centers which are included in the information system to start with. The other 50% sub-sample centers could be the control group in future evaluations. By utilizing the sample of centers in the information system, successive evaluations would enable parameters to be developed relating input of PL 480 Title II food and supplemental food to the quantitative drop in malnutrition levels, especially if longitudinal studies could be carried out.

Each year the number of centers to be included in the expanded program would be increased in accordance with the ability to meet the particular support requirements identified above, such as trained personnel and voluntary workers, storage facilities, transportation, equipment.

It should be pointed out that by starting with existing centers, the expansion program will not place too great an additional burden on supporting services except to meet the requirement for bringing them up to date. However, since such services are presently below the appropriate levels of efficiency, it will be necessary to improve them.

If the agricultural development programs of the GOH are successful, then it would be possible for GOH to gradually replace PL 480 Title II with its own food resources. It should again be emphasized the advice of the World Bank and the experience in the U.S. that there will always be a need of some kind of subsidized food programs to reach the vulnerable target group.

7. The Resources for Expanding the PL 480 Feeding Programs as Recommended

This is an opportune time to consider an expansion in the level of PL 480 Title II foods because the world food supplies have turned the corner with the U.S. developing large surpluses. The domestic demand for these surpluses has in the meantime diminished as a result of the Food Stamp Program. In effect, the vulnerable target groups in the U.S. are no longer being reached through the distribution of surplus foods. While there has been no opportunity to check the assumption, it is believed that a legitimate request for an expansion in the use of PL 480 Title II foods will be met with little or no opposition.

The critical resource problem is to find ways to provide support services required to bring even the present levels of PL 480 Title II feeding programs to efficient operation. Time did not permit the examination of the food balance situation in Honduras, but it is probable that it is not in balance and that the economy could absorb PL 480 Title I foods. It is believed that Washington would not be adverse to an increase in the amount of Title I foods being sent to Honduras, particularly if it can be demonstrated that the counterpart funds will be used to support a program which falls in the high priority categories of AID such as improving the level of human resources through better nutrition on the part of the population.

A review of the nutrition loan should be made to see whether certain components may provide support to the PL 480 Title II Feeding Programs. For example, could some of the personnel to be trained with funds from the nutrition sector loan be used to provide support services to the feeding centers? Thus, a nutritionist trained under the program might

give nutritional training to voluntary workers and personnel.

Because of the link between malnutrition and poor sanitation, it may be possible to link the sanitation program under the loan with the expanded feeding program by putting the centers on the priority lists with respect to the construction of sanitary facilities.

C. Conclusions

If AID/H accepts the strategy outlined above, namely, to utilize an expanded PL 480 Title II Feeding Program with the long-run objectives of:

1. Initiating the improvement of the vital human resources of Honduras at the critical time in life when the future contribution of an individual is largely determined, namely, during the fetal period and early years;
2. Helping to fill the gap in the food balance; first, with Title II foods aimed at the target of vulnerable groups; and second, by utilizing an expanded Title I food program to obtain a part of the funding to bring the supporting services and supplemental food up to standards required;
3. Helping to create a viable system of reaching the target groups with feeding programs and sanitation;
4. Expanding certain Food for Work programs which meet other AID priorities such as community development;
5. Developing a good record keeping system which will first be used for evaluation programs and then for operating and clinical purposes;

Then AID/H should take the initiative of working with the VolAgs to examine the feasibility of expanding the programs. identify the areas of

expansion, identify the specific problems likely to be encountered and the constraints with the purpose of finding ways of solving them. Without firm commitment to the evolved program, discussions should be held between SAPLAN and the AID/H-VolAg working group to see how such a plan fits in with the Nutrition Plan being developed by SAPLAN.

Depending upon the results of such discussion, AID/H-VolAgs would possibly be in a position to make a commitment to GOH to provide a given level of PL 480 Title II foods through the VolAg operations and PL 480 Title I food to generate a certain amount of counterpart money to be used for supporting the Title II feeding plans and in turn the nutritional goals to be set by SAPLAN.

As part of the discussion with the GOH, the offer for increased PL 480 Title II food and support from Title I counterpart funds, AID/H with the VolAgs should discuss with the GOH a program for greater financial and technical assistance on the part of GOH, especially on the part of the Ministry of Health and Education as well as a long-run program of increasing involvement.

Appendix A

Original Scope of Work

Original Scope of Work

1. Evaluate relative impact on the health and nutritional status of recipients of the various PL 480, Title II feeding programs - including MCH, Food for Work, School Feeding, and Other Child Feeding Programs;
2. Evaluate the efficiency of each category of feeding program of each VolAg a/or GOH agency in terms of maximizing benefit to recipients with given quantities of food and make specific recommendations for improving efficiency;
3. Evaluate performance of GOH agencies' effectiveness in carrying out program objectives, in working with VolAGs, and assess prospects of GOH assuming larger role in managing, providing food resources, and implementing specific activities;
4. Work with Voluntary Agencies to establish base line data (e.g. heights, weights by age and sex, in various programs versus control groups not assisted) and a simplified system of periodically evaluating health, nutrition impact over time which could be used by USAID and VolAg personnel;
5. Upon completion of tasks Number 1, 2, 3, and 4, above, make detailed recommendations, based on Contractor's frank appraisal of the activities, to the USAID as to necessary changes in VolAg of GOH agency operations of programs, increasing, decreasing specific feeding programs over the next 5 years and the ability of the GOH to assume larger roles in specific programs;
6. Make recommendations to the USAID with regard to the integration of PL 480 Title II commodities into AID grant and loan projects in Honduras;
7. On the basis of information available on nutrition problems in Honduras and actual observations, recommend specific objectives for feeding programs which exist and should continue as well as possible new programs to be achieved over the next 3 to 5 years, and on outline of plans to achieve them.

Appendix B

P.L. 480 Title II in Honduras

Tentative Guidance

P.L. 480 TITLE II IN HONDURAS

Tentative Guidance

The Preview and Perspective

Honduras is a poor country. Malnutrition affects perhaps 75% of the population. Governmental resources for feeding programs are limited. The Government of Honduras can not afford to finance all the nutritional interventions which might be desirable -- although it could perhaps afford to do more.

There are no Honduran national goals for feeding programs, no systematic basis for setting priorities, no analytical process for identifying goals, or priorities, or, examination of cost/benefits of varying programs in either political, economic, social or nutritional terms.

Objectives are pretty much projectized according to purposes and practices of the specific operational agencies. There is, however, no attempt to establish what the nation's supplementary feeding needs are, nor any comprehension of the extent the needs are being met -- or should be met -- nor any plan as to how to deal with the national need over any time span, nor any real assessment as to whether or to what extent, for example P.L. 480 Title II commodities are having a beneficial effect on the nutritional status of the entire population, or, even that portion of the population currently being aided.

National and foreign feeding programs follow pretty much their own separate courses and inclinations although there are efforts to relate some foreign programs with certain ongoing and proposed national efforts in specific instances.

P.L. 480 Title II commodities in this, or for that matter virtually every country of the world where there are P.L. 480 Title II programs, have been regarded as commodities to be used for specific projects -- rather than to be employed to serve broad goals and national purposes. Specific distributor organizations, e.g., VolAgs, in contrast do have specific institutional purposes and project objectives, and in some cases institutional national development goals, which may, or may not, be significant in terms of national goals of countries where distribution takes place.

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In Honduras perhaps 15% of the population benefit from feeding programs or food subsidies, i.e., 20% of a potential nutritional target group. Perhaps 10% of the population, i.e., 13.3% of a potential target group are recipients of Title II commodities. Probably 5% of the prime nutritional target group (pregnant women, infants and nursing mothers) receive Title II foods, and 33% of primary school age children (a second priority group) receive Title II foods.

The Proposal

Since the bulk of commodities in feeding programs are provided by the United States Government, there is an obligation on AID to ensure that these commodities are utilized to the best possible advantage in supporting Honduran goals yet to be identified and determined through a process yet to be evolved.

Since the bulk of U.S. commodities are provided to two VolAgs, CARE and CRS, collaborative and collegial action is indicated rather than an adversary process of negotiations.

These two organizations have their own independent status and capacities and because the USG role is -- and I think properly -- circumscribed, we should attempt to develop a modus operandi in Honduras which attempts to find the common bond of purposes and coincidence of objectives. To this end a working group should be set up to develop a consensus, which if reached could have far ranging consequences for mutually-supportive discussions with the Government of Honduras and for the character and content of USG-supported feeding programs.

The Prospects and Probabilities

The prospects and probabilities for a useful outcome of a collaborative process depend directly on the extent which the interests of CARE, CRS and the USG can be harmonized. In this respect, at one extreme, philosophy, perspective and policy of the agencies differ as do patterns of activity, practices and procedures at the other.

There is, however, a middle ground of purpose, principles, priorities, programs and projects which can be harmonized and in ways which recognize each operational Agency's requirements for independent action and latitude, and, the USG's general policy and overseeing responsibilities.

The Purpose

It should be our common purpose to have the best possible analytical basis for taking program and project decisions.

It should be our common goal, within our respective Agency capacities, to be as responsive as possible to feeding program needs as determined by the Government of Honduras. In this respect the analytical foundation for decision-making by the Government of Honduras needs to be improved.

It should be our common objective to encourage the Government of Honduras to meet increasingly, year by year, feeding program requirements, from its own resources.

It should be our common expectation that with aid and assistance the administrative capacity of the Government to carry on operational programs can be improved year by year.

It should be our common hope that the VolAgs can be the major innovative and experimental influence in determining how, and how fast, Government feeding programs can be expanded and strengthened.

It should be our common conclusion that through a collaborative process and the sharing of information fully and frankly the effectiveness of our individual and collective efforts can be strengthened and made more useful to this country.

The Principles

There are a number of principles which should guide our collaborative efforts with the Government of Honduras.

1. The Government of Honduras has the sovereign right to take whatever decisions on use of its own and external resources it considers suitable to its own circumstances.
2. Each Agency -- VolAgs and USG -- has the right to determine according to its own policies and practices how the resources it owns or controls will be used.
3. The degree of coincidence between 1, and 2, determines the potential area for joint, collaborative or cooperative action.

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4. Status quo programming and resource allocation implies a degree of dependency which is not in the long term interests of the Government of Honduras, nor the Government of the United States, nor the VolAgs.
5. Phaseover of programs, projects or program and project elements should be geared to the capacity of the Government of Honduras to assume the additional responsibilities and to provide the additional resources and not to be determined by an arbitrary and artificial time schedule. This, however, does not exclude the setting of target schedules to be negotiated in principle and to be negotiated period by period, taking then current factors and considerations into account.
6. Operational agencies should seek to innovate and expand the scope of their operations, within the context of the Government's desire, not only for additional project components but also for program assistance and technical advice for which the USAID would be favorably disposed to make resources available through the OPG process.

The Priorities

There are explicit and implicit differences in priorities between the GOH and the USG, between the VolAgs themselves, and between the VolAgs and the USG. In some cases the differences have no operational significance. Indeed, they help ensure minimal overlap. In other cases the differences can lead to conflict, e.g. the differences in priority which AID/W and CARE attach to school feeding. The USAID is more flexible, providing evidence of interest of GOH to step up the program from its own resources.

We can assume, because of the involvement of Government of Honduras agencies that high priority is accorded to subsidized urban food stores in poor districts, urban day care centers, FFW programs in agrarian reform areas, feeding programs in frontier areas. We may perhaps assume that school feeding creates a political imperative for its continuation, particularly in urban areas, but that in the absence or diminution of external resources, that the number of beneficiaries in rural areas would be cut or at a minimum their rations reduced.

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CARE in Honduras has maintained its preference for school feeding, but has been innovative and active in a number of other areas -- some of which are non-traditional for CARE e.g., non-institutional MCH delivery systems through village housewives clubs, village councils, at schools for pre-school age children, MCH, or, FFW programs in housing and rural public works.

CRS in Honduras has maintained its strong preference for FFW activities, but it too has actively engaged in innovative and new activities, e.g., its women promoter programs, individual housewives clubs, etc. as well as MCH programs. In addition, there are in the early stages thinking about food banks, consumer cooperatives, non-traditional foods.

The Germans provide the GOH funds to purchase food locally which is then distributed. In addition there are a multitude of small U.S. based charitable and church organizations that provide food and, of course, other assistance.

AID/W guidance on beneficiaries over the years has not been consistent and has been affected by varying factors, some of which are extraneous to substantive policy aspects e.g., existence of surpluses and scarcities. These on again/off again supply availabilities interfere with a desirable continuity of programming.

In the FY 1978 guidelines Agency policy gives preference to MCH, FFW and School Feeding in that order, but also allows for some adult feeding and institutional feeding categories. Furthermore, VolAgs are allowed to establish operational reserves up to 25% of their approved program whereas it had been 10%. There is additional flexibility granted to give Missions opportunity to demonstrate that an alternative priority ordering could constitute a more effective course of action.

In the absence of a new and better analytical base, the Mission is not in a position to either confirm or reorder the AID/W preference at this time. Hopefully AID's PL 480 Title II contract evaluation study by Clapp & Mayne will provide suitable information.

The Programs and Projects

It would be premature to conclude on programs and projects. These should be the outcome of existing programs and projects, the

- 6 -

results of the collaborative process, and close cooperation and program and project development with the Government of Honduras. Suffice to say, the USAID has a strong and favorable disposition to use OPG moneys to supplement and help make more constructive and beneficial the employment of the P.L. 480 Title II resource in support of the Government's development, including nutritional goals. Furthermore, the Mission would be favorably disposed to agree to the use of P.L. 480 Title I commodities as well as sales proceeds for increased Government involvement in feeding programs.

We are confident that much can come out of the evaluation study to influence the programs of the future.

While program and project design should be carefully elaborated, pragmatism should also guide us in considering:

- What proportion of nutritional requirements of country should be met through feeding programs?
- What time frame should be anticipated for improving national agricultural productive capacity -- perhaps a precondition to expanded nationally directed and supported feeding programs?
- How can programs proposed for initiation be used as inducements for the GOH to carry out appropriately-sized food programs, and, carry an appropriate load of any cooperative external agency efforts?
- How can P.L. 480 Title II resources be used to fit in with the national development goals of individual VolAgs?

The Postview and Promise

It may well be that in Honduras -- poor country that it is -- would be a candidate for increased P.L. 480 Title II assistance, providing such expansion was accompanied and related to additional efforts by the GOH. In this respect we must always be sensitive to avoiding establishment of a dependency syndrome. With respect to P.L. 480 Title II programs, much will depend on the results of the evaluation study cited above, the consequences of the collaborative approach, and, the success of negotiations with the Government.

USAID/H
April 29, 1977

Appendix C

**Centers and Participants Selected in the
Sample to be Used by Visiting Team**

Appendix C

Centers and Participants Selected in the
Sample to be Used by Visiting Team

	<u>CARE</u>		<u>CARITAS</u>	
	<u>Centers</u>	<u>Participants</u>	<u>Centers</u>	<u>Participants</u>
MCH and Infant Centers	7	203		
School Feeding	8	314		
Day Care Centers	3	189		
Recuperation Centers (SERV)	7	171		
Orphanages	1	21		
Hospitals with Maternity Ward	1	21		
Schools as Control	7	256		
Control Area	1	20		
Food for Work Projects	2	28	4	12
Pre School Feeding Centers			2	10
Parishes	-	-	10	

Number selected on the basis of time available and distance to cover.

Appendix D

Norms Established for SERN

ALGUNAS NORMAS DE LOS SERVICIOS DE EDUCACION Y RECUPERACION NUTRICIONAL (SERN)

El Servicio de Educación y Recuperación Nutricional (Sern) es un Servicio que combina la recuperación de niños desnutridos pre-escolares en régimen de semi-internamiento diurno, con la educación nutricional de sus familias. Todo SERN está obligatoriamente adscrito a un Servicio de Salud, estando bajo la supervisión y autoridad del Médico-Jefe de dicho Servicio con colaboración y asistencia técnica del personal de Nutrición a nivel del área de salud correspondiente. Los SERN de otras instituciones estarán sujetos a convenios establecidos o que en el futuro se inscriban.

Los objetivos del Servicio son educar a la familia a través de su participación activa en la recuperación del niño desnutrido; tratar de recuperar sin hospitalización niños desnutridos severos no complicados; prevenir la desnutrición en otros niños de la familia; y promover actividades comunales tendientes a mejorar la situación nutricional de la comunidad.

El SERN funciona con una Administradora, una Niñera, y una Cocinera.

Requisitos del personal

La Administradora deberá poseer título de Maestra de Educación primaria. La niñera y la cocinera, como mínimo deben saber leer y escribir. Todo el personal debe recibir un adiestramiento tutorial antes de su contratación. Todo el personal deberá tener examen de salud y renovarlos cada seis meses, entre estos: heces y orina, pulmones, VDRL y otros que el sub-programa estime conveniente.

CAPACIDAD DEL SERN

El Servicio tendrá una capacidad para atender treinta (30) niños. Los niños deberán ser llevados al Servicio de lunes a viernes de 7:30 y deberán ser retirados de 4:00 a 4:30 p.m. por la persona encargada, y sábado de 7:00 a 12:00 a.m. observándose la rutina de los días restantes.

Serán beneficiarios del SERN los niños de 1 a 5 años, 11 meses y que padezcan de desnutrición proteico-calórico o sea clasificados como desnutrido grado II y presentar una relación de peso/talla de 85% o menos. Se debe hacer al niño un examen clínico nutricional y que no padezcan de ninguna enfermedad infecto-contagiosa ni cualquier otra patología que amerite hospitalización. Debe tener además registro en el Servicio de Salud al que este adscrito el SERN. Se dará prioridad a los niños referidos de hospitalización por desnutrición.

El niño permanecerá en el Servicio hasta su recuperación, siempre que los padres cumplan con sus obligaciones. El tiempo máximo de estancia para alcanzar la recuperación será de cuatro (4) meses. Se dará egreso a los niños por: recuperación y cuando los padres no cumplen con sus obligaciones en el Servicio. Si después de cuatro meses el niño se ha recuperado satisfactoriamente, el médico de acuerdo con el supervisor y la administradora, podrá autorizar que el niño continúe en el SERN, siempre que la madre haya cumplido con sus responsabilidades con el SERN y que el niño no presente ninguna patología más grave que justifique su hospitalización.

El niño recibirá en el Servicio, los alimentos correspondientes a los tres (3) tiempos de comida y dos (2) meriendas.

La alimentación cubrirá el 100% de las recomendaciones dietéticas en porciones adecuadas para su edad, formándole y fomentándole los buenos hábitos alimentarios. Durante el momento de las comidas, el niño contará con la atención del personal del SERN, quien le dará los alimentos, en el caso que no pueda por sí mismo, y controlará el consumo total de los mismos. El niño tendrá siempre la oportunidad de repetir si lo desea. Se observará si el menú es aceptado por los niños, en caso negativo deberá investigarse la razón. Se dará especial atención individual a la alimentación de los niños en condiciones más severas.

Los niños recibirán atención médica por parte del personal del Centro de Salud al cual está adscrito el SERN. Quienes serán responsables de la buena salud y recuperación del niño. Cada dos (2) semanas todos los niños tendrán un control médico. Los niños que presentan cualquier tipo de patología recibirán atención médica oportuna en el Centro de Salud. Todos los niños recibirán las inmunizaciones prescritas por la Dirección General de Salud y se procederá a su desparasitación cuando el médico lo estime conveniente.

Se aprovechará la permanencia del niño en el SERN, para fomentarle buenos hábitos higiénicos y alimentarios, se hará énfasis en lo siguiente:

Lavado de manos con agua y jabón, antes y después de las comidas y después de usar el servicio sanitario. Baño y limpieza diaria con jabón y pasta. Limpieza y corte de uñas. Aseo y cuidado del cabello y uso del peine. Aseo de la cara, nariz y ojos y boca. Uso del cepillo de dientes. Aseo y cuidado del vestuario. Comportamiento durante las comidas. Uso de los cubiertos. Masticación. Posición al comer. Reglas de urbanidad.

Recreación:

La recreación es básica en la recuperación del niño. Los juegos además de entretener a los niños sirven para satisfacer necesidades y desarrollar capacidades. La niñera desarrollará diariamente un programa de recreación adaptado a las características de los niños, el cual deberá ser planificado, asesorado y

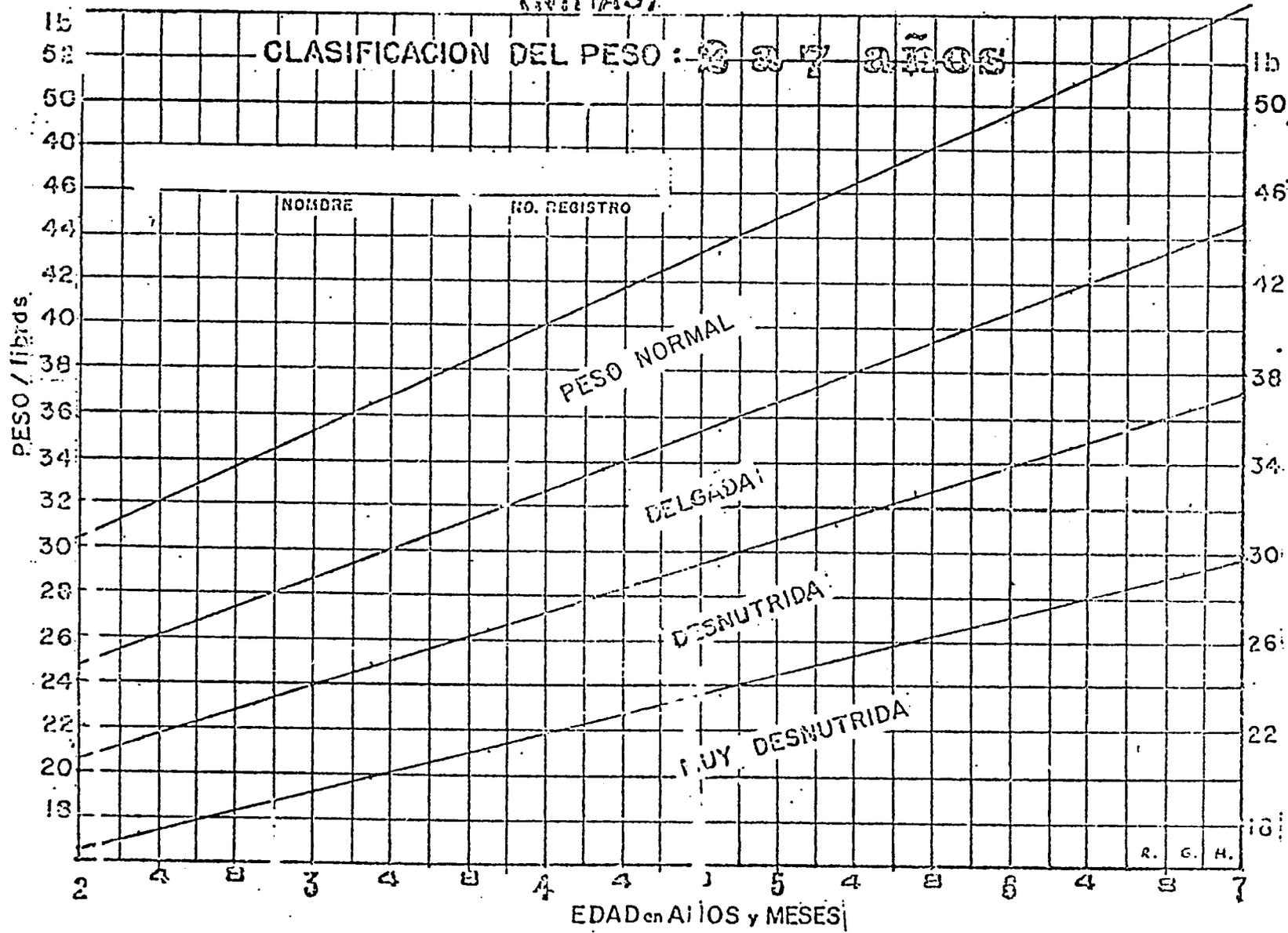
supervisado por la administradora, de acuerdo al anexo No. 4.

Los niños recuperados en el SERN, podrán entrar en un programa de asistencia continuada en forma de consulta externa, durante (4) meses adicionales. Los objetivos de este control son continuar con la educación de los padres, el control de salud y nutrición. Los niños que presenten cualquier tipo de patología recibirán atención médica oportuna en el Centro de Salud.

Appendix E
Age - Weight Chart

(NIÑAS)

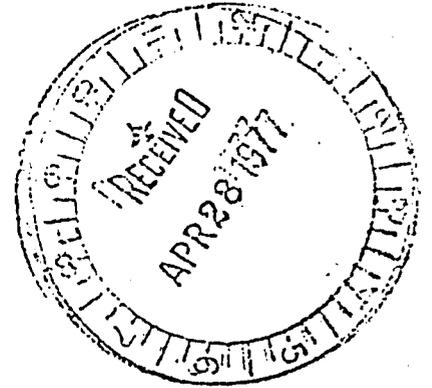
CLASIFICACION DEL PESO : 2 a 7 años



Appendix F

Letter from Ms. Linda N. Haverberg, Ph.D

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523
April 26, 1977



Mr. Alvin Mayne/Dra. Esther Seiyo de Zayas
Clapp and Mayne, Inc.
1606 Ponce de Leon Avenue
Santurce, Puerto Rico 00909

Re: Draft Comments/Suggestions on Evaluation of PL 480
Title II Feeding Programs in Honduras

Dear Mr. Mayne/Dra. Zayas:

As per your request, Mr. Mayne, I will briefly summarize our discussions in Washington which focused on suggestions for conducting the Evaluation of PL 480 Title II Feeding Programs in Honduras. I refer you to pages 1-2 of the RFP #52260051, which outlines the specific objections and scope of work, and I suggest that you use this as a guide.

Upon your visit here in Washington on Monday, April 25, I gave you a copy of the Evaluation of Supplementary Feeding Programs in Nicaragua prepared by Joyce King, February-March, 1977. Let me reiterate my comments and caution you about this document.

1. The Nicaragua program terminated in June, 1976 so this evaluation represents a retrospective analysis. The program in Honduras is on-going and therefore it will be possible to observe first-hand how the program is going, i.e., to conduct interviews, to evaluate records, to evaluate food acceptability/food utilization, etc.

2. The Nicaragua document is meant to serve as a guideline to evaluate the nutrition/health impact of supplementary feeding programs in Honduras. We do not want the same document with "Hondura" substituted where "Nicaragua" is. We would rather have you and your group build on/expand this document, perhaps use different impact indicators for examining the health/nutrition impact. But I would like to emphasize that we regard the nutrition/health "impact" of the feeding programs as the most important aspect of the evaluation as opposed to an evaluation of the administrative aspects of the programs, i.e., shipping

warehousing, etc. (This is not to imply that the latter should not be examined and recommendations made for increased efficiency).

The following outline represents some suggestions on how to proceed with the evaluative study. Let me strongly advise you, however, to consult the USAID/H Mission on their specific needs and objectives as well.

1. Basically, you are being asked to evaluate the nutrition/health impact of Title II in MCH, other child feeding, school feeding and FFW programs. You may want to use the impact indicators selected by Joyce King and/or other indicators as you see fit. This will depend on the data that is available, (e.g., wt/ht, wt/age, school attendance, school performance, center attendance, center enrollment turnover, number of days worked by laborers in FFW projects, changes in prevalence of malnutrition, etc.). This represents the health/nutrition impact on the recipients, directly or indirectly, depending on the measure (indicator) chosen.
2. You have also been asked to develop baseline information for followup periodic evaluations, which really means a surveillance system. It will be necessary here to evaluate the data collection system, collect baseline data and make recommendations for refinements or changes necessary in the system so that the program can be easily and continuously monitored for its effectiveness.
3. The scope of work calls for a comparative look at all four classes of supplementary feeding programs. Which program is having the greatest health/nutrition impact, reaching the largest number of the at-risk population, costing the least amount of money relative to those reached?
4. A comparative look at the efficiency of operations of each class of supplementary feeding and of each VolAg and GOH agency is also asked for in the scope of work. Could the programs be made more efficient/effective? Is any agency overextending its capabilities? Can and should the program be expanded? In which agencies or VolAgs? Is personnel/money/transport/accessibility a limiting factor in efficient operations? Are all groups coordinated?

-3-

5. Another important area to focus on is what happens to the food once it reaches the beneficiaries. Is the food sold on the market so that other foods can be purchased? Is take-home food consumed by the at-risk group? Is food substitution taking place at home in the school feeding program? These questions, being somewhat sensitive requiring subjective responses from interviews, may be hard to answer. Time may not even permit a detailed analysis. But some indication, about subjective, would be helpful.

6. How can these feeding programs be integrated with our on-going grant and loan projects in Honduras? Can we piggy-back other projects on the infrastructure created by the supplementary feeding programs? Should an indigenous food mixture be developed to replace PL 480 foods? Is it cost-effective/feasible to do so? How long will it take? What should the timing be regarding possible phase-out of PL 480 and simultaneous development and distribution of a local food mixture? Is this desirable?

7. Rather than emphasize the negative aspects of the program, concentrate on recommendations to improve the program, e.g., increased ration, increased emphasis on one type of program versus another to reach the target group or perhaps your analysis will point to the need for nutrition/food programs other than supplementary feeding programs which will have a greater nutrition/health impact on the target population or which will address specific nutrition problems in the population which supplementary feeding programs cannot, by their very nature, address.

I hope that these comments and suggestions are helpful as a guide to your work in Honduras. Good luck.

I enjoyed meeting you in Washington and look forward to future encounters.

Sincerely yours,

Linda Haverberg

Linda N. Haverberg, Ph.D.
Nutrition Advisor
Office of Development Resources
Bureau for Latin America

Appendix G

Form for Supervision of the
"Vaso Nutricional" Program

SUPERVISION DEL PROGRAMA VASO NUTRICIONAL

Nombre del Sub-Centro _____
 Dirección _____
 Departamento _____ Centro Cáritas de _____
 Encargado(a) _____ Fecha _____

A. Centro de Distribución

1. Número de niños inscritos en el Censo inicial _____
2. Número de madres embarazadas y lactantes _____
3. A qué hora distribuyen el vaso nutricional _____
4. ¿Qué promedio de beneficiados asisten diariamente? _____
5. ¿Cuántos días a la semana se distribuye el vaso nutricional? _____

B. Reglas del Programa

- | | | |
|--|-----------|-----------|
| 1. ¿Existe Club de Amas de Casa organizado? | <u>Sí</u> | <u>No</u> |
| 2. ¿Cumple con sus <u>finalidades</u> este Club?..... | <u>Sí</u> | <u>No</u> |
| 3. ¿Saben la procedencia de los alimentos?..... | <u>Sí</u> | <u>No</u> |
| 4. Todos los beneficiados son <u>autorizados</u> | <u>Sí</u> | <u>No</u> |
| 5. Venden los alimentos recibidos de Cáritas..... | <u>Sí</u> | <u>No</u> |
| 6. Cambian los alimentos recibidos de t. as..... | <u>Sí</u> | <u>No</u> |
| 7. ¿Preparan la cantidad diaria correcta?..... | <u>Sí</u> | <u>No</u> |
| 8. ¿Llevan control de asistencia diaria?..... | <u>Sí</u> | <u>No</u> |
| 9. Reportan mensualmente la asistencia diaria..... | <u>Sí</u> | <u>No</u> |
| 10. ¿Llevan control de peso de los niños?..... | <u>Sí</u> | <u>No</u> |
| 11. Toman el vaso nutricional en el Sub-Centro los beneficiados..... | <u>Sí</u> | <u>No</u> |

C. Bodega

- | | | |
|---|-----------|-----------|
| 1. ¿Es <u>adecuada</u> la Bodega para los alimentos?..... | <u>Sí</u> | <u>No</u> |
| 2. ¿Existen alimentos dañados o infectados?..... | <u>Sí</u> | <u>No</u> |
| 3. ¿Sobre qué estriban los alimentos?..... | <u>Sí</u> | <u>No</u> |

D. Inventario

Existencia de productos en el Sub-Centro:

W.S.B. _____ lbs. Avena _____ lbs.

E. Detalle de anomalías encontradas y acción tomada:

F. _____
 Supervisor

Appendix H

Questionnaire for the Assignment of CARE Foods

MINISTERIO DE SALUD PUBLICA Y ASISTENCIA SOCIAL

Y

CARE - HONDURAS

El presente cuestionario debe ser completado como el primer paso para consideración en el posicionamiento de alimentos CARE a distintas clases de instituciones.

1. Nombre de la Institución: _____
2. Dirección Exacta, Pueblo: _____ Municipio: _____
Departamento: _____
3. Dé quién depende su institución: _____
4. Clase de Institución (Comedor, Hospital, Centro de Salud, etc): _____
5. Qué ayuda financiera recibe mensualmente? Lps. _____
6. De quién recibe la ayuda financiera? _____
7. Clase de programa para el cuál está solicitando ayuda? _____
8. Radio de acción de su programa? _____
9. Número de personas pagadas que formarán el personal que trabajará directamente en el programa para el cuál usted está solicitando? _____
10. Quién tendrá la responsabilidad en la administración del programa? _____
11. Número de beneficiarios contemplados diariamente? _____
Nombre y Dirección _____
Clase de beneficiarios (Madre, Niño, etc) _____
12. Recibirán otras donaciones? _____
De quién? _____
13. Describa las facilidades de la cocina y cantidades de utensilios? _____

14. Cuentan con una bodega segura y amplia para almacenar alimentos? _____
15. Cuántos tiempos de comida diarios serán servidos a los beneficiarios? _____

(Ver al reverso)

16. Cuántos días a la semana serán atendidos los beneficiarios? _____

17. Nombre y dirección de la persona responsable en la comunidad con quién CARE pueda ponerse en contacto en cualquier momento? _____

Firma y dirección de la persona que llenó esta solicitud _____

Fecha: _____ Lugar: _____

REQUISITOS PARA OBTENER PRODUCTOS CARE

1. Tener organizado un patronato.
2. Contar con un edificio seguro, con agua potable.
3. Tener suficientes bancas y mesas (Para un comedor)
4. Contar con una bodega segura y con ramplas y estantes.
5. Tener suficientes calderas, utencílios y una estufa.
6. Facilidades para transportar alimentos CARE cada 3 meses de Tegucigalpa o San Pedro Sula.
7. Tener suficientes fondos para la compra de carnes, verduras, azúcar, sal, etc y el pago para una cocinera en caso que no puedan organizar un Club de Amas de Casa.
8. Adjuntar lista de beneficiarios (Nombres y Edades).

Appendix I
Appointments and Meetings

Entrevistas y Reuniones

1. John B. Robinson - Director AID
2. Paul Hartenburger- AID
3. Anthony Canterucci - AID
4. Santiago Valladares - Programa de Alimentos AID
5. Ricardo Rodríguez - World Food Program
6. Frank Valva - Director Catholic Relief Service - CRS.
7. Jerry Lewis - Director C A R E .
8. Cristina Nubio de Figueroa - Coordinadora General de Planificación.
9. Gail Storm Schafffield- Nutricionista Peace Corp. CARE
10. Emirto Raudales - Coordinador de SAPLAN
11. Germán Contreras - Corporación Nacional de Industrias
CONADI
12. Roberto Canales - Supervisor de Programa Mundial Alimentación
Suplementaria (SAPLAN)
13. Apodaca- Food for Peace
14. Dr. Rafael Tercero - SAPLAN- School Feeding Program
15. Pablo Portillo - Ministerio de Educación (SAPLAN)
16. Lcdo. Aldo Pineda - Junta Nacional Bienestar Social -
Miembro de SAPLAN
17. Párroco - Parroquia La Guadalupe
18. Párroco - Parroquia - San Vicente
19. Sr. Armando Rodríguez - Supervisor de CARE - San Pedro de Sule
20. Sr. Arturo Santos :- Supervisor CARE - S.P.S.
21. Sr. Aristides Alvarenga- Supervisor CARE - S.P.S.
22. Sr. Robert Allen - Director CARE - San F. Sula
23. Padre- Jesús Martínez de la Hidalga - Parroquia de San Antonio
de Tela
24. Padre Vicente - Parroquia San Antonio de Tela
25. Auxiliar de Nutrición - Junta Nacional de Bienestar Social-Ceiba

26. Meneleo Bardales - Supervisor de CARE Tegucigalpa
27. Sr. Montoya - Oficina CARITAS - Tegucigalpa
28. Sr. Victor Hugo Castillo - CARITAS- Tegucigalpa
29. Párroco - Santa Rosa de Copán - CARITAS
30. Padre- Roberto Armudariz - Parroquia Danli CARITAS
31. Promotor de CARITAS - Bo. Arizona- CARITAS
32. Promotor de CARITAS - Parroquia de Tela
33. Promotor de CARITAS- Comayagua
34. Sr. Marrero- Presidente Patronato (Food for Work) CARITAS.
Bo. El Volcán - Comayagua
35. Párroco - Parroquia Pespire - CARITAS
36. Enfermera - Centro de Salud Las Crucita
37. Parroco - Parroquia Choloma- CARITAS
38. Don Carlos - Promotor Voluntario de CARITAS
Parroquia de Sabana Grande - Tegucigalpa
39. Administradores de Centros de SERN y Guarderías
40. Maestros y Directores de Escuelas
41. Sra. María del Carmen Ayes- Estadísticas Hospital Materno
Infantil - Tegucigalpa
42. Sra. Berta Lydia Mejias Gómez- Estadísticas Hospital Leonardo
Martínez - San Pedro Tela
43. Sra. Juanita Brenes de Campo - Enfermera
Sesamo Paz Varona - San Pedro Tela
44. Sra. de Ardón -Jefe Departamento Estadística Hospital Leonardo
Martínez
45. Sor Buitrago - Depto. De Dietas - Hospital Leonardo Martínez
46. Sra. Reina Palma Iria- Depto. de Dietas Hospital Materno
Infantil - Tegucigalpa
47. Dr. Carranza - Centro de Salud Alonso Suaso- Tegucigalpa
48. Sra. Teodora Matrite - Jefe Servicios Sociales Centro de
Salud Suaso
49. Sra. María Esther Nuñez - Trabajadora Social

- 3 -

50. Lcdo. Julio César Navarro - Director de PANI - Tegucigalpa
51. Sr. Hermes Peñalba- Gerente Diocesano CARITAS San Pedro de Sule
52. Sr. Miguel Rodríguez - Supervisor de Bodegas de CARITAS - San Pedro Sule
53. Sr. Robert Allen - Gerente CARE - San Pedro
54. Dr. Heriberto Pineda Santos - Director Hospital Leonardo Martínez - S.P.S.
55. Lcdo. M. Sánchez - Director Departamento Nutrición Ministerio de Salud - Tegucigalpa
56. Dr. Danilo Vázquez Cruz - División Materno Infantil
57. Dra. Anarda Estrada - Ministerio de Salud- División Materno Infantil

Appendix J

Additional Quotations Relating to Malnutrition
as a Cause of Underdevelopment

Additional Quotations Relating to Malnutrition
as a Cause of Underdevelopment

Shlomo Reutlinger and Marcelo Selowsky: Malnutrition and Poverty - Magnitude and Policy Options - World Bank Occasional Papers - 23 Washington, D.C.
1976

Page 7

"Target group - oriented food programs in urban areas and programs to assist low income farm families to increase and stabilize production of food for their consumption can be more cost effective than outright income distribution"

Page 8

"The consequences of undernutrition are: first, poor bodily and mental health, which in turn causes physical suffering and mental anguish; second, low productivity with effects on private and national levels of consumption and accumulation of wealth".

ALAN BERG

ESTUDIOS SOBRE NUTRICION

Su Importancia en el Desarrollo Socioeconómico

Página 21

La nutrición y el potencial económico del hombre

La desnutrición influye desfavorablemente en el desarrollo mental, el desarrollo físico, la productividad y los años de una vida activa; todo esto repercute en forma considerable sobre el potencial económico del hombre.

Página 22

Apenas se comienza a dar respuesta a la compleja interrogante sobre el carácter del perjuicio que ocasiona un daño prematuro. Los estudios realizados en diversos países indican que en las pruebas de inteligencia realizadas en años posteriores, el desempeño de los jovencitos que alguna vez estuvieron desnutridos es inferior que el de quienes gozan de una adecuada nutrición.

La desnutrición grave que requiere hospitalización, acarrea un efecto persistente a largo plazo no sólo en la inteligencia, sino también en el aprendizaje de la instrucción académica básica. Quienes sobreviven a una grave desnutrición prematura son diferentes de los niños normales"

[5]. Más aún, "los conocimientos disponibles verifican la estrecha relación que existe entre el antecedente de una desnutrición grave durante la lactancia y el desempeño por debajo del nivel óptimo en la edad escolar"

ALAN BERG

ESTUDIOS SOBRE NUTRICION

Su Importancia en el Desarrollo Socioeconómico

Página 26

Capacidades de Los Adultos

Con frecuencia se ha descubierto que la mejoría en las dietas que eran evidentemente insuficientes ha originado incrementos en la producción en el trabajo [22] y en la asistencia la mismo [23]. Al parecer, quienes tienen una alimentación inadecuada realizan ajustes de compensación en la energía que gastan y así preservan sus procesos internos. En la realidad, para el trabajador adulto esto significa una vida más corta que la promedio, en condiciones inferiores a las de un hombre promedio. Sus ajustes a las deficiencias de nutrimentos los lleva a cabo mediante la combinación de un trabajo a ritmo lento, el ahorro de ejercicio muscular, la renuncia a innovaciones o esfuerzos extra, un peso bajo y un ligero alejamiento del estado de bienestar general. También otras deficiencias, como por ejemplo la de hierro, influyen en su capacidad para trabajar; además, su vida sufre complicaciones causadas por las enfermedades que contrarrestaría una adecuada alimentación.

Página 27

Lapso de vida laborable

La desnutrición y la subalimentación son importantes causas de las altas tasas de mortalidad entre los adultos, aunque no tan dominantes

ALAN BERG

ESTUDIOS SOBRE NUTRICION

Su Importancia en el Desarrollo Socioeconómico

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como entre los lactantes y los niños. El relativo impacto que produce la desnutrición como factor de debilitamiento en la resistencia a enfermedades que en otros casos no serían fatales (o el impacto de la desnutrición en la infancia sobre el nivel posterior de salud en los adultos) no se ha estudiado detenidamente como causa de la mortalidad en el adulto.

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En parecidos intentos por comenzar a determinar los beneficios económicos de la inversión en la salud [38], el costo de la prevención de una muerte se compara con los futuros ingresos del trabajador si hubiese vivido. También la inversión en el capital humano se determina relacionándola con las pérdidas producidas por la muerte en cualquier momento anterior al retiro del trabajador. Ese capital abarca la salud, alimentos, vestido, habitación, educación y otros gastos necesarios para capacitar a una persona fin de que desarrolle su capacidad particular. Estos costos también pueden evaluarse en comparación con la debilidad, cuando la muerte no es un factor [39]. Ya sea que la enfermedad se traduzca en la pérdida temporal de días laborables o en la reducción temporal o permanente de la capacidad de trabajo, la pérdida calculada en la producción, aunada al costo de la atención médica, puede compararse con los gastos propuestos para evitar, en primer lugar, la aparición de la enfermedad [40].

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emplean para las ocupaciones mecánicas en los modernos sectores manufactureros, a los estudiantes cuya desnutrición limita los dividendos provenientes de los gastos destinados a salud y educación y a los pequeños agricultores que se enfrentan a las mayores exigencias de las nuevas tecnologías agrícolas. Sin embargo, quizá el impacto más generalizado y duradero será el resultado de proporcionar la adecuada nutrición a las madres en el último trimestre del embarazo, periodo crítico en el desarrollo del feto, y a los niños desde los seis meses hasta los dos o tres años. (La lactancia materna puede satisfacer la mayoría de las necesidades que tienen antes de los seis meses.) El mayor requerimiento fisiológico y el mayor desarrollo ocurren en los primeros dos años: por ejemplo, el 80 por ciento del peso final del cerebro se alcanza a la edad de dos años.

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Se pueden comparar también las ganancias que se obtendrán de los gastos en la nutrición. La nutrición mejorada eleva el flujo de ganancias por encima de lo que hubiera sido a falta de un mejoramiento en el bienestar, si gracias a dicha mejoría un trabajador ausente se reintegra a la fuerza laboral activa, se alarga el lapso de su vida laborable, se supera un decaimiento que reduce su capacidad productiva, se logra que un niño vuelva a la escuela o mejore su comprensión o retención de lo aprendido, o se permite que un adulto asimile de manera más eficaz el adiestramiento laboral o la capacitación agrícola.

Una vez que el bienestar de una persona se estabiliza, los costos de nutrición se convierten en gastos de sostenimiento. Los incrementos en la nutrición ya no originan incrementos en la productividad. Así, una mejora en la nutrición puede contribuir a elevar o mantener el nivel de productividad de un miembro activo de la fuerza laboral o puede tomar la forma de inversión, por ejemplo, al ayudar a elevar las ganancias esperadas para la vida activa futura de un niño de dos años.

Página 38

Las utilidades comparadas con los costos

El rendimiento en la productividad derivado de la inversión en la nutrición se puede prever cuando se refiera a los trabajadores que se

Appendix K

Sample Page of Random Table

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TABLE OF RANDOM DIGITS

<i>No.</i>										
17750	54846	13302	37944	12648	13534	75987	17551	53383	59762	14154
17751	60721	87738	63009	64254	25610	09488	27219	54643	87396	32030
17752	31327	32037	12666	98853	79028	85930	69897	18342	34078	40364
17753	57192	71834	13796	85698	46440	75389	69006	53679	73873	55322
17754	50971	03014	84338	32146	91046	04530	34510	57698	58800	13404
17755	36183	47640	14699	62828	74408	13609	57774	73173	27402	66123
17756	89886	64379	07806	29447	27901	52683	34391	24074	63355	73392
17757	56652	01510	23253	42137	96275	68326	69326	37652	31579	61152
17758	71113	30473	91123	57893	77707	80281	88562	90734	20593	26343
17759	16237	92673	31972	49899	72351	40716	04840	51805	89032	26051
17760	09532	97306	80316	37964	95312	89290	87715	33847	34525	52460
17761	32571	33947	92181	27933	89863	92116	38107	50498	50066	74239
17762	70723	29350	21723	59834	77513	04946	79159	93619	49999	52596
17763	00798	59561	02754	48896	70545	29415	42955	96803	35539	75565
17764	70554	37739	74633	16604	15957	73825	12281	97451	58000	17959
17765	21221	22001	65815	61172	26374	89651	61355	34946	93525	50499
17766	47933	83086	80065	12585	60966	88424	15563	14883	09413	32657
17767	78793	20115	25696	62515	16022	69013	85950	84771	80589	31355
17768	11211	03557	74341	47499	83763	41973	76609	65934	27460	36842
17769	17383	40211	22636	45264	12674	02747	49033	88406	12135	35578
17770	97519	03601	63457	06591	23801	40508	65772	92916	05157	04066
17771	16215	25044	40916	98535	80918	90021	46173	57901	81776	46643
17772	85416	30839	12546	22118	94502	65908	84198	13151	34073	60104
17773	00060	31408	92929	30875	00163	67257	05808	89117	86191	38445
17774	42077	12050	77916	03126	70043	67694	62817	48086	60153	89377
17775	73381	47171	50607	86413	68657	57151	90907	14141	36777	12228
17776	20621	63455	77117	77509	53256	13163	13577	89993	64450	55913
17777	69671	40340	55271	33239	57703	82068	11146	86896	40107	49954
17778	51133	07432	03421	00072	27981	82383	13322	41372	52249	15662
17779	20056	38238	05522	73457	69982	66421	95874	50316	57143	56466
17780	64162	42447	07134	93865	49452	94743	76272	94179	94144	15476
17781	19840	42299	43380	77485	01657	85930	42637	43175	85231	12539
17782	99160	17627	78709	64998	03790	55697	34231	74398	45303	11193
17783	53122	48168	83234	15684	44204	03816	07391	23138	35905	49207
17784	63164	65953	65135	05121	93591	51329	76757	78506	37450	16262
17785	06540	99772	92779	77541	98300	23034	23988	60257	47229	51954
17786	14912	34023	01413	92750	28289	75153	65913	87284	63366	73284
17787	82005	16101	21534	78440	04273	40139	25783	72745	83375	08806
17788	31890	16803	50250	62500	16677	11571	43340	24022	24759	17653
17789	64933	31340	74968	11913	74572	91949	06025	51238	24936	50864
17790	69020	53346	21913	05884	77506	32113	63703	68960	95514	50437
17791	19012	00300	38428	95279	14910	04514	93069	56734	37129	18830
17792	25328	99686	22973	27839	38340	54954	23783	78794	69366	39116
17793	43438	94254	83791	04992	84608	84781	68302	81709	06031	77354
17794	20873	24753	46084	45133	14972	29953	76644	41496	65481	57039
17795	23977	98084	12333	59677	37748	66490	08490	82233	48881	72743
17796	66183	91635	65518	03702	05771	72251	23295	13735	13995	00753
17797	12313	09536	29445	78796	95320	57752	41353	58244	38246	45413
17798	71806	52188	94321	56546	26579	07219	81925	63367	09107	84799
17799	35977	78248	22956	75073	33079	78146	97786	93384	18699	26512

Bibliography of Studies and Reports

REFERENCIAS DE ESTUDIOS E INFORMES

Estudiados

1. GAFICA - Food Balance Sheets started by Gafica group for de 1960-70 period.
2. INCAP - National Food Survey - CDH 1966.
3. Honduras Ministry of Public Health. Nutrition Assessment of the Central America and Panama Population. Honduras INCAP-ICND-1969.
4. 1974-78 National Development Plan.
5. CONSUPLANE Sept. 1975. First Draft of the 1976 Food and Nutrition Operational Plan.
6. AID'S Nutritional Technical Assistance Project. Report submitted by the work team.
7. Bastiann Schouten. Final Report, AID no.522-T-287 - June 1975.
8. Marina Flores - Dieta Adecuada de Costo Mínimo para la República de Honduras - INCAP - 1975.
9. Charles B. Wiggin. Memorandum to AID director E. Maras - Chief Private Development on P.L. 480 Title II Activities.
10. King. Evaluation of Supplementary Feeding.
11. CARITAS - 1975-76. Estadísticas de Localización de Proyectos Vaso Nutricional.
12. Junta Nacional Bienestar Social. Seminario - Reunión de Evaluación del Programa de Desarrollo Social de la Comunidad - 1976.
13. SNAAN - Informe Anual - Servicio Nacional de Alimentación y Asistencia - Ministerio de Educación Pública - 1972-1973 1973-1974 1974-1975 1975-1976.
14. CARE-Honduras - Programa Plan Fiscal Year 1977 and of 1976. June 1975.
15. CARE-Honduras - Multi Year Program 1975-1979.
16. SAPLAN. Evaluación de las Areas Prioritarias de el Problema Nutricional de Honduras y sus Probables Soluciones. SAPLAN (Sistema de Análisis y Planificación de la Alimentación y Nutrición Honduras 1976.