**International Nutrition Communication Service**
**(INCS)**

# CONSULTANT REPORT

for

CARE/HONDURAS

(November, 1982)

(Guidelines for a Multiyear Plan for the School Feeding and Maternal Child Health Programs)

BY

Edward Capparelli, M.D.
Through subcontract to
Community Systems Foundation

Marcia Griffiths, INCS
Through subcontract to
Manoff International, Inc.

and

Mary Ruth Horner, Ph.D.
CARE/New York

Submitted by
Education Development Center
55 Chapel Street
Newton, MA 02160

To the United States Agency for International Development
Washington, D.C.

*This project has been conducted under Contract A.I.D./DSAN-C-0209,*
*Office of Nutrition, Development Support Bureau, Agency for International Development, Washington, D.C.*

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# INTRODUCTION

The following Consultant Report targets program priorities for two components of the CARE/Honduras Pl. 480 Title II feeding program in Honduras--school feeding and maternal-child health. The consultants' recommendations are comprehensive, ranging from the development of a computerized information feedback system to support for on-site preparation of food (as opposed to distribution of take-home rations). The Report reflects an intensive effort to visit feeding sites, observe training programs, interview officials and identify the real needs of a complex and well-run program.

Underscoring most of the recommendations are considerations related to education and communications. Whether it be improved training in growth monitoring for health workers or the development and increased distribution of educational materials for teachers involved in the school feeding, a major theme of this Report is that the impact of CARE's Title II program in Honduras could be greatly enhanced with increased planning for (and investment in) nutrition education. It is an area that to date has not been given high priority by CARE, or by many of the other voluntary agencies that administer feeding programs in developing countries.

Ron Israel
Director, INCS

December, 1982

TABLE OF CONTENTS

## SUMMARY OF CONSULTANCY

CARE/Honduras operates four PL 480 Title II feeding programs. In November 1982, a consultancy team from USAID examined the two largest programs in an attempt to better define program goals and to incorporate a nutrition education component. The two programs examined were a school feeding program and a maternal-child health program.

The goals of the school feeding program, with 250,000 beneficiaries, were modified to reflect the Ministry of Education's desire to stress school attendance rather than effective nutritional supplementation. Although this change deviates from previous goals, it more accurately reflects the goal of the Ministry of Education. Indicators to measure this goal were identified and an information feedback system was elaborated for data collection and computer processing. Priorities for program expansion were set down by the Ministry of Education and incorporated into the future plans, with 400,000 children anticipated in the program by 1986. A computerized system, monitoring school attendance and the possible incentive effect of the school feeding program, was described. Management and supervision goals were enumerated. Finally, a defined nutrition education component was presented. It identified educational materials that currently exist in Honduras and that properly deal with

specific health/nutrition education topics in an effective manner for school children.

The mother-child health feeding program has 80,000 beneficiaries and at the moment lacks definition and focus. Although CARE's contract is with the Ministry of Health, the National Social Welfare Board as well as several nonaffiliated communities implement maternal-child health feeding programs. There is little standardization of criteria or efforts at cooperation between implementing agencies. A unifying focus was defined when the goals were clarified, such as: improvement of nutritional status for malnourished children and food supplementation for pregnant and lactating women, community-level health/nutrition education, and overall community promotion. Options for future expansion, program modification, and counterpart interaction were presented along with the pros and cons of each option. Indicators for measuring program progress were defined and a data collection system was described. Specific recommendations for a health/nutrition education component were presented. The activities described support the recommendation to implement a community nutritional status screening system and to provide appropriate training for community workers and interested community people. Due to the state of flux in the present system, a management system was only outlined. Once a standardized program is agreed upon by all groups, a more accurate and elaborate management system can be defined.

Future technical assistance will be needed for computer programming, education coordination, field analysis of the maternal-child health options, and maternal-child health management planning. The last need will only be feasible after a unified system is agreed upon by all counterparts, agencies which will probably take several months.

## GLOSSARY

| | |
|---|---|
| CESAR | Rural health center staffed by an auxiliary nurse |
| CSM | Corn soy milk powder distributed by CARE |
| Fotonovela | A comic book using photographs instead of drawings |
| Guardian | Community-level volunteer health workers trained by the MOH |
| JNBS | National Social Welfare Board |
| Lactario | Rural feeding center run by the JNBS, where milk is prepared for an MCH feeding program |
| Litrosol | Packaged oral rehydration salts |
| MCH | Maternal-child health |
| MOE | Ministry of Education |
| MOH | Ministry of Health |
| MYP | Multiyear plan |
| NFDM | Nonfat dry milk |
| PAT | Project activity targets, used in CARE project planning |
| Patronatos | Community councils |
| PRASAR | Rural Water and Sanitation Project |
| PROALMA | National Breastfeeding Support Project |
| PROCOMSI | Mass Media Child Health Project |
| Representante | Member of the community council responsible for health promotion activities |
| SAEH | Honduran School Food Service |
| SF | School feeding |

## INTRODUCTION

In September, 1982 CARE/Honduras requested technical nutrition assistance in program planning for their school and maternal-child health feeding programs for inclusion in their Multi-Year Plan for 1983-1986. In response to this request, a two-person team was provided for the period of November 8-22, 1982. The scopes of work for both consultants were parallel. Below is a joint scope of work which reflects the contents of this report. Edward Capparelli was primarily responsible for points 1-5 with collaboration from Marcia Griffiths, whose task included the integration of health and nutrition education concerns into points 1-5 as well as the plan mentioned in point six.

Scope of work:

1. to specify realistic, measurable program goals;
2. to define a system for the identification and targeting of program beneficiaries;
3. to outline a plan for streamlining the linkages with other planned or ongoing health and nutrition programs;
4. to define an information feedback system;
5. to develop a management plan for field supervision;
6. to specify a comprehensive health/nutrition edu-

cation component plan for each feeding program;

7. to prepare a joint report discussed with and concurred on by CARE/Honduras and USAID/Honduras.

Throughout the visit the consultants worked as a team, making it difficult to strictly delineate responsibilities. Therefore, this report represents not only a collaborative effort on the part of the two principal consultants, but also the efforts of a larger working group which included Justin Jackson and Jeannette Whitfield of CARE/Honduras, Mary Ruth Horner of CARE/New York, and the CARE counterparts in the Primary School Division of the Ministry of Education (MOE), the Nutrition Department of the Ministry of Health (MOH) and the Social Prevention Division of the National Social Welfare Board (JNBS). This work group as well as the many other people with whom we spoke (see Appendix I) contributed generously to the overall effort to improve the CARE feeding programs.

An understanding of the current situation in Honduras, especially in the areas of health, nutrition, and education, was important to this consultancy. Appendix II presents a summary of this information. In addition, background information on the CARE feeding program was crucial. Numerous reports were provided by CARE and are cited in the bibliography. Anecdotal information en-

riching these reports was gleaned from discussions held during the period of the consultation as well as from a field trip to San Antonio del Norte.

To summarize, CARE/Honduras has been providing food to a school feeding (SF) program for 23 years and to a maternal-child health (MCH) program for 15 years. The major attentions of CARE staff past and present have focused on the solution of logistics problems in the distribution of and accounting for the food provided. Efforts have been made in the past to broaden the programs to include nutrition education, garden programs, etc; however, none of these efforts was sufficiently integrated into either the CARE or the counterpart programming to enable it to survive.

The present country focus for CARE/Honduras programs is health and nutrition. Current programs are being re-evaluated in light of this focus as well as the counterpart priorities which have been recently elucidated and articulated. CARE has expressed a desire for their feeding programs to be more community-based and better integrated with other community projects, such as their own water and watershed projects. CARE is also interested in supporting a nutrition monitoring system to improve their beneficiary targeting and nutrition/health education component that addresses some of the practices affecting health and nutritional status.

CARE/Honduras has recently been awarded an outreach grant that provides for the construction of two central

warehouses as well as for vehicles and per diem travel allowances for counterpart field supervisors. Hopefully, this will provide the infrastructure necessary to alleviate many of the current distribution and administrative problems and provide CARE with better feedback information from the end-point feeding sites. The outreach grant also provides some funds for a nutrition surveillance system and beginning health/nutrition education activities. The outreach grant monies coupled with the possible arrival of a CARE computer, as proposed in the outreach grant, should go a long way in improving the quality of the programs in terms of food distribution, as well as targeting, monitoring and assessment. As a result, CARE is willing to look for funding for gradual expansion of complementary program elements based on the beneficial results expected from the corresponding components of the outreach grant.

## I. SCHOOL FEEDING PROGRAM

A. Description: The school feeding project in Honduras has been in existence since 1959 and currently serves a daily liquid snack to 250,000 (39%) primary school children of a total estimated 640,000 students in Honduras. These children represent the combined enrollment of 3,188 (56%) of Honduras' 5,682 schools and are predominantly rural. The present beneficiaries include 7,500 (19%) of the nation's 40,000 kindergarten students.* The project is carried out with the active participation of the Ministry of Education (MOE) through the Honduran School Feeding Service (SAEH) office as well as the individual communities.

The school snack consists of a cooked drink prepared from Corn-Soy-Milk powder (CSM, PL 480 Title II), Non-Fat Dry Milk powder (NFDM, until recently from the European Economic Community with USDA Title 416 as proposed future supplier) as well as sugar and spices provided by the community. The targeted monthly rations per student are 2.5 pounds of CSM and one pound of NFDM, which provide an estimated 29 - 42% of the daily recommended protein and 11 - 14% of the daily recommended calories for each student. This snack is only provided on school days during the eight month school year for an estimated 133 feeding days per calendar year.

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* The number of preschool beneficiaries is actually higher because some of the preschoolers cannot be separated from those in primary school with the current registration system.

B. Goals:

Final Goal: The education and improved well-being of an estimated 250,000 primary school children which will enable them to participate more actively in the socio-economic development of Honduras.

Intermediate Goals: (1) Increase school attendance in 3,188 primary schools, using the school snack to attract children to school and encourage their continued daily attendance.

(2) Consumption of a protein and caloric supplement by 250,000 primary school-age children participating in the school feeding program.

(3) Promote the adoption of specific health and nutrition practices among the beneficiaries to achieve greater impact from their participation in the school feeding program.

C. Beneficiaries: The program currently serves 250,000 primary school children in 3,188 schools. For a school to be considered for inclusion, it must be in a rural or marginal urban area. Other selection criteria include:

1. a high degree of interest from the school director;
2. prompt completion and mailing of all paperwork required by CARE and/or MOE; and
3. a high degree of interest from the community as evidenced by: (a) willingness of the school to transport the commodities from the Distribution Point to the community in a timely fashion;

(b) provision of adequate storage facilities at the school;

(c) daily preparation of the commodities for consumption;

(d) provision of sugar for snack palatability.

To facilitate daily preparation and the provision of sugar and spices for the snack, it is recommended that a parents' group be formed and given these responsibilities in each participating community. Accessibility enters as a criterion for participation only when it truly is impossible to deliver the food.

Once a given school is enrolled in the program, all primary school children enrolled and attending that school are automatically included regardless of nutritional status. Even after inclusion into the program, a school can be removed if the school or community is unable or unwilling to conform to the above rules.

Projected program growth is incremental to 400,000 by 1986, dependent upon availability of funding from the MOE, which unfortunately has been decreasing for the last two years.

Following in-depth discussion with CARE and MOE, the consensus on program expansion priorities (in decreasing importance) were:

1. kindergarten children (jardín de niños) attached to primary schools;
2. primary school age children in school (rural schools will have preference over urban);

3. primary school age children not in school;

4. increased ration size for current beneficiaries.

In accordance with this list, expansion of coverage to kindergartens attached to primary schools should assume preference in program expansion for 1983. Once all kindergartens and qualifying primary schools have been covered, increased commodities will be supplied to participating schools for outreach to primary school age children not presently enrolled, which will hopefully encourage their attendance. Only when all of these goals have been accomplished, will increased ration size be considered.

Increasing ration size was a concern when the goal of the program was related to showing an impact on nutritional status. It was explained to the MOE that the current size of the ration is inadequate to improve nutritional status, especially considering that the supplement is only given on school days or roughly 35% of the year (approximately 17 days a month for eight months). However, the MOE identified their main objective as increasing school attendance rather than nutritional impact, and preferred to expand coverage rather than to increase ration size.

D. Measurement of Goal Attainment: Feedback for the school feeding program will include quantifiable, accurate, and reproducible parameters that can be obtained and analyzed given personnel and budgetary constraints. In addition

to quantitative reporting, some qualitative information regarding perceived program benefits should be collected periodically from the beneficiaries and teachers. Combined, this information will provide reasonable and ongoing measurements of goal attainment.

Development of this feedback system is dependent upon the following assumptions:

1. acquisition of a computer system by CARE (presently being considered under the outreach grant), a programmer, and a technician whose responsibility is to enter the feedback data into the computer;
2. full cooperation by the MOE supervisors and school teachers.

In the CARE planning system, intermediate goals are accomplished by means of quantifiable activities of PATS (Project Activity Targets). The achievement of the intermediate goals is measured via indicators that form the basis for the reporting system. Our feedback system has been developed using the CARE system.

INTERMEDIATE GOAL 1: Increased School Attendance

PAT: provision of food to 3,188 schools.

INDICATOR: Attendance rate : $\frac{\text{\% school attendance participating schools}}{\text{\% school attendance nonparticipating schools}}$ >

Actual enrollment and attendance figures for each school are needed. This information is currently collected by the MOE, and aggregated attendance figures by school can be made available to CARE at the beginning, middle, and end of the school year.

Evidence of achievement of this first goal will be provided from interpretation of the cross-sectional and longtitudinal data. Until the computerization process is functional, a cross-sectional comparison of attendance at participating and nonparticipating schools will be the only operational indicator for this goal. The calculation of percent attendance for each school is as follows:

$$\text{Percent Attendance} = \frac{\text{Average daily attendance}}{\text{School enrollment in February}}$$

This measurement should be calculated three times a year and then averaged for the year for every school. Trimester averages and annual averages for the aggregate of participating schools and that of nonparticipating schools can then be calculated, as well as an overall national averages. Inferences regarding the impact of the feeding program on school attendance can then be drawn by comparing the short-term and long-term means with one another and also against the national means. If Goal 1 is actually being realized it is expected that the percent attendance at the participating schools will consistently be higher than that of nonparticipating schools. The indicator to be reported will be

the ratio of percent attendance at participating versus nonparticipating schools and this should be greater than 1.0.

It may be important to look at three groups in this comparison of school attendance, because the MOE is considering their own supplementation for 128,000 children with NFDM. Although this is not part of the CARE program, schools in this category should be so noted in the computer data bank. This group should be analyzed separately from both the participating and the nonparticipating groups to avoid confounding the results from either group.

Hopefully after several years, longitudinal data can be used to develop an indicator to support the results of the above comparisons which are based on cross-sectional data alone. As new schools enter the program, comparison of attendance figures in Years One and Two of the program with preparticipation levels will give a truer measurement of the increase in school attendance due to the snack. If the snack proves useful in increasing school attendance, areas for program expansion can be targeted to the municipalities with the poorest percentage attendance figures.

The magnitude of the numbers involved in the school attendance calculations makes computerization a necessity for measurement of this goal. CARE has agreed to develop and debug all necessary computer software, pending available funding. Following this, MOE and CARE will explore the possibility of turning the monitoring over to the MOE.

If accepted, MOE's responsibility will be to collect and enter the data as well as to provide reports a minimum of three times per year to CARE on school attendance.

INTERMEDIATE GOAL 2: Consumption of protein and caloric supplement by all beneficiaries.

PAT: Provide food to 250,000 primary school children.

INDICATOR: (1) 100% feeding rate in feeding every day school is in session; (2) consumption of 28 grams protein and 484 calories per beneficiary per day.

The desired outcome of consumption of the provided food supplement is that a child's usual intake of calories and protein will increase by amounts equal to those provided by the supplement. Unfortunately, it has been noted by program supervisors and teachers that in some cases families substitute the school snack for a home meal for the school child. It is an impractical activity for school teachers or program supervisors to measure a child's daily intake both in and out of school to accurately assess this contention. If this second goal were stated in terms of "nutritional impact" of the supplement on the beneficiaries, it would be necessary to collect detailed food consumption data both from program beneficiaries as well as from non-beneficiaries. Both groups would report food consumption at home with the value of the school snack added to the former group's intake. With these data, the extent to which the school snack substitutes for a home meal could be calculated.

However, given the expense and complexity of estimating substitution, nutritional impact in large scale feeding programs is rarely measured in these terms. Hence, the goal stated above is simply that the children consume the provided snack.

Information related to Goal 2 should be collected on a regular basis from teachers' reports. Unfortunately, these reports may be subjective and fraught with possible error. For example, food that becomes spoiled or insect-ridden may be discarded, but reported as consumed to avoid censure or program suspension. All calculations must therefore be interpreted with the knowledge that no independent verification of the teacher-supplied data exists outside that of occasional spot checks by program supervisors.

The first piece of information needed to measure Goal 2 is the number of actual classroom days, which is equivalent to the number of potential feeding days. This information reflects the ability of the school to be open each of the days programmed during the school year. For example, the two month teacher strike in 1982 greatly shortened the total number of classroom days for that school year. Since CARE has absolutely no control over factors which interrupt the school year, a second piece of information is needed: the extent to which each school provides the snack on each day that the school is in session. This is influenced by the effectiveness of commodity distribution and snack preparation.

These data are combined in the first indicator of achievement of Intermediate Goal 2:

$$\text{Feeding rate} = \frac{\text{Actual feeding days}}{\text{Actual classroom days}}$$

It is expected that this indicator should approach 100% in each of the participating schools.

The second indicator for Intermediate Goal 2 is the actual amount of protein and calories consumed daily by each beneficiary. These numbers should be equal to the amount programmed. The average intake will be calculated using the following method:

$$\text{Daily average ration consumed/child} = \frac{\text{Monthly school ration consumed}}{\text{Sum total of children fed that month}}$$

This calculation must be performed separately for CSM and NFDM. The total figure for CSM in pounds then must be multiplied by 90.6 to obtain grams of protein and by 1,721 to obtain calories. The total figure for NFDM in pounds must be multiplied by 162.6 to obtain protein and by 1,644 to obtain calories. The average intake figure for each nutrient will then be obtained by adding the protein totals from each of the two commodities together and likewise the calories. The results obtained will provide the average daily intake of both protein and calories per student in any given school. For comparison, the targeted daily values per beneficiary are 28.3 grams of protein and 484.2 calories.

During discussions concerning Intermediate Goal 2, it was recognized that an ideal and more objective measure of

the impact of supplement consumption is weight gain. Although a large scale program effort in this regard is impractical principally because schools do not have scales, the adoption of a new program activity has been recommended: promotion and execution of school field trips from participating schools to the nearest area health centers three times per year on a pilot basis.

PAT: School trips to health centers, expanding to 100 new schools annually.

INDICATOR: One hundred schools with anthropometric measures on all students three times per year.

While at the health center, each child could be weighed and measured and the nurse could give a class on a relevant health topic. This visit will serve many purposes, including providing accurate anthropometric measurements, introducing the child to the health center in a nonthreatening atmosphere, and providing a linkage between the Ministries of Education and Health. It is recommended that each student be weighed three times a year, at the beginning, middle, and end of the school year (February, June, and October, respectively), and that these results be sent to CARE and the MOE by the school teacher. For computer purposes each child will be assigned a number which together with the school code will individually identify him or her. Although growth is certainly multifactorial, collection of this information is useful, especially in detecting any decline in weight from

the end of one school year to the beginning of the next, which represents the period when the children are not receiving the supplement. Collection of anthropometric data will be a pilot project and therefore should not be incorporated into the reporting system until this exercise proves feasible and beneficial.

INTERMEDIATE GOAL 3: To promote the adoption of specific health and nutrition practices.

PAT: The provision of behaviorally oriented, single-concept, health and nutrition education materials to all teachers and students in program schools.

A variety of indicators can be used to measure Intermediate Goal 3:

Distribution Efficacy: $\frac{\text{Quantity of each material received at the school}}{\text{quantity programmed per beneficiary times number of beneficiaries}}$

Utilization:
- % of schools using the materials in class
- % of schools distributing the materials for the children to take home
- % of schools carrying out additional activities mentioned in the materials (where applicable)
- % of schools that have taken action based on the materials.

Because CARE-distributed education materials will be undertaken on an experimental basis, information relating to goal attainment cannot be collected on a routine reporting form, but rather will have to come from the return of postcards included with materials.

E. Management: To effectively improve the school feeding program, a management system must consider each of the following problems:

1. transportation: difficulty with timely and consistent delivery of commodities to schools;
2. storage: inadequate storage facilities at both the distribution centers and the schools;
3. preparation and consumption: insufficient supervision;
4. feedback: not all required information is being reported, poor information processing.

The various levels of responsibility will be considered and used as a framework to propose improvements in the management system.

- MOE Central Level Responsibilities

Transportation is the responsibility of the MOE, which is subcontracted out to private trucking firms. In the past there has been difficulty getting food to the schools before the start of the school year. It is recommended that deliveries start in January and that all participating schools receive their food shipments prior to the last day of February. Earlier delivery may require the transportation contracts to be signed earlier. Transportation to school sites is biannual at most schools and annual at the more inaccessible schools. CSM and NFDM can both be stored for long periods without spoilage. Given the logistical difficulties and high cost of increasing the frequency of distribution, the present system is considered sufficient.

Maintenance and necessary expansion of distribution center storage facilities is an ongoing expense. It should be the responsibility of the MOE to budget sufficient funds annually for these items, although to date that has not occurred.

- MOE and CARE Supervisory Responsibilities

There are currently 222 intermediate Distribution Points involved in the distribution of commodities for the School Feeding Program. Each of these Distribution Points should be inspected at least annually by either a CARE or MOE supervisor. The following items should be checked:

1. the stocks of CSM and NFDM against the amounts reported to be there; i.e., what was received (commodity receipt form data) less what was distributed;
2. the current storage conditions against CARE/MOE guidelines; and
3. security of the storage area.

All problems should be reported both to CARE and the MOE. Continued inability to comply with minimal standards should be used as a criterion to suspend deliveries to that Distribution Point until conditions improve. Flagrant misreporting of commodity levels also would be grounds for suspension.

The number of available supervisors will be increased as a result of the outreach grant provision of six new four-wheel-drive vehicles and travel money for a total of

900 days of field supervision. This will allow six MOE supervisors to get out to the schools for site visits and inspection. In the past, transportation was only available with CARE supervisors. The coverage ability will be greatly increased through this provision.

With use of the USAID computer, CARE has currently placed all of the participating schools on the computer and is developing a program which will randomly select the names of participating schools. Twice during the school year, random lists of schools will be generated and given to the supervisors. It will be the responsibility of each supervisor to visit each of the communities on his list during the succeeding four months. The exact order of visits will be left to the discretion of the individual supervisors to enable grouping of nearby schools. Random selection will assure that more inaccessible schools are not ignored.

There are currently two groups of supervisors for the feeding program. Each of the six MOE supervisors is targeted for 150 travel days per year. Allowing for some days when they are unable to get out and actual travel time, 130 days should be available for visiting schools. Each supervisor should be able to visit an average of two schools per day for a total of 1,560 schools visited per year. CARE has eight supervisors, each of whom is not only responsible for the School Feeding Program but also for three other major CARE programs. The CARE supervisors should each visit at least 80 schools per year for a total of 640.

Separate random lists should be generated both for the CARE supervisors as well as for the MOE supervisors. The possibility of receiving two independent reports for the same school will serve as a check on the supervision procedures. Overall, this scheme will provide 2,300 school visits per school year and enable all schools to be visited about every 18 months. In addition to this, all new schools being considered for inclusion in the program should be visited by a supervisor prior to approval or within the first four months of their participation.

At the level of the school, the supervisors should note the following information:

1. general school parameters: number of students enrolled, number of students present on day of visit, number of students receiving snack on day of visit (presence of piped water, presence and use of latrine, and/or a garden at the school--these are of interest, but not crucial);
2. commodity storage: bag counts of CSM and WFDM (adequacy of space and storage conditions--qualitative);
3. snack preparation: site of preparation and its cleanliness, adequacy of preparation facilities, who prepares and whether this person is paid and by whom, whether sugar was provided,
4. parents' groups: presence, membership, and types of activities related and unrelated to School Feeding Program;

5. teacher involvement: coordination of School Feeding Program, use of health and nutrition education aids provided by the program;
6. overall impression (e.g., excellent, very good, average, poor, terrible); and
7. comments.

All of this information will be coded for transfer to the computer along with the name and number code of the school, the letter code of the supervisor doing the report, and the date of the visit. The parameters which will be analyzed initially for immediate program feedback are numbers 1, 2, and 6 above.

- School-Level Responsibilities

Reports from the school teachers will be supplied to CARE and the MOE on a monthly basis. Recurrent failure to complete and return reports will be considered sufficient reason for expulsion from the program. The teachers' reports should include the name and code number of the school, the month and year, and the following information:

1. number of classroom days that month;
2. number of school feeding days;
3. number of students fed (each day listed separately);
4. commodity inventory (CSM and NFDM listed separately)--number of bags at the beginning and end of the month, number of bags received during the month, and number of bags used during the month;

5. number of health or nutrition related classes taught and their subjects;
6. institution of any new health and/or nutrition practice at the school; and
7. other comments.

Commodity inventory records will be cross-verified with reported distribution center shipments. Inconsistencies will require an investigation and could result in the school being expelled from the program.

F. Health and Nutrition Education Component: Both the Ministry of Education (MOE) and CARE are interested in strengthening health and nutrition education activities in the primary schools. They realize the potential that exists for positive benefits for the children as well as their families if appropriate topics and materials can be designed, distributed to the schools, and incorporated into the curriculum.

The MOE already has made provision for the incorporation of health and nutrition concepts into the curriculum for at least the first three grades. An experimental edition of the Plan y Programas de Estudio, 1982 has activities within the study and "Man, Environment and Work" designed to familiarize children with foods in their communities, the sources of food, food production, processing, and hygiene. The composition of good and bad diets and the

effects of good and bad dietary practices are also subjects for teacher-led discussion.

School activities are suggested: making a vegetable soup, cooking a lunch, preserving fruit, growing beans, going on a field trip to the health center. While a curriculum with these activities and concepts is to be recommended, no assurance could be offered that any of this was in practice now or that the support materials required for many of the lessons would be distributed. Given materials and time constraints, it seems more useful for school teachers to focus on one or two concepts and activities specifically related to the lives of school children and what they can do rather than on all the ramifications of poor nutrition and the role of vitamins.

In addition to the curriculum materials, the Department of Educational Resources (Recursos de Aprendizaje) has developed some reference materials on nutrition and health for teachers and school libraries. Half of their materials have been printed and the others await financing for publication. Because the materials are designed as reference books, they have a plethora of information on all aspects of nutrition. Before printing the reference books, the content should be reviewed again considering the background, lifestyle, and food available to the people who use these books. In the present format it is difficult to distinguish what is most useful for rural Honduras. Also, it seems there

was little or no consultation with the Ministry of Health, therefore some of the information is outdated (for example, the infant feeding section) and should be updated to MOH norms.

Despite some of the shortcomings, the desire of the MOE to provide resource materials to teachers and an activity oriented curriculum for students is encouraging. The impression given is that the MOE would be receptive to CARE's assistance in the promotion of health and nutrition. Areas for additional assistance were mentioned in Margaret Goreki's report on the School Feeding Program. In the schools she visited, 50% of the school teachers were providing some kind of health or nutrition education. Those teachers who were not, mentioned lack of materials or training as the reason. If CARE could help by addressing either of these inadequacies, the final outcome from a minimal investment could greatly improve the impact of the program on beneficiaries and possibly their families.

In the course of the consultancy, a number of options and activities were discussed with CARE and the MOE. Many of these were reshaped because of the capabilities within the MOE to take on more work related to the feeding program, the availability of CARE staff to oversee an education component, and budgetary constraints (the only money available is that in the outreach grant--$72,000 for all of CARE's programs). Following are five program activities for

immediate implementation and assessment. After this trial CARE can assess their desire to expand a health and nutrition education component within the School Feeding Program.

1. Follow up the suggestion made by the Primary Education Department that the "ficha de supervisión para los maestros" be revised to include nutrition and health education objectives. This form for teacher evaluation ranks performance on a scale from 0-100. In schools with feeding programs, good program administration is worth three points. The suggestion is to increase the total points to at least seven. These seven points could be awarded to a teacher for coverage of nutrition and health concepts (two points), the inclusion of good health practices in the daily school routine (two points), and good administration of the feeding program (three points).

2. Make provisions to distribute Salvaste a Tu Hermanita!, the fotonovela developed by PROCOMSI to familiarize school children with the proper treatment of diarrhea. The material is behaviorally oriented and single-topic. The presentation is clear and appealing. The fotonovela is useful for both school children and their families. Instructions for the teacher are part of the fotonovela and a separate page with definitions of the terms has already been developed. The material can be used without teacher training.

PROCOMSI has printed enough fotonovelas only for their own distribution. The cost to print an additional

number of copies in quantity is US$.30 per copy, making extensive printing and distribution by CARE unfeasible for budgetary reasons. Therefore CARE should consider selecting two or three departments, approximately 500 schools, in areas of high priority for the MCH feeding program,* where guardians are working and Litrosol is being distributed through the health center. Departments in Health Region I should not be selected, since that is the pilot area for the PROCOMSI project.

If an average of 30 fotonovelas were programmed per school, 15,000 would be necessary. At US$.30, the total printing cost would be US$4,500.

The proposed distribution mechanism for delivery of the booklets is experimental. Delivery with the CARE reporting forms would be the first trial. The packets of fotonovelas would be delivered to the Food Distribution Points by the supervisor and then would be picked up or transported to the school. CARE supervisors will need to spot check on visits to the schools to ensure that the fotonovelas left at nonschool Distribution Points arrive at their final destination.

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* Impact from these materials will be improved if they are used in areas where public education on the same topic is ongoing. If CARE institutes MCH education activities in Regions I, II, and IV, the addition of a school education activity in the same areas will be a good complement.

When the fotonovelas are distributed, they should include a stamped, addressed post card, which the teacher will be asked to complete and mail to CARE. The questions on the post card should include the following:

- Date material arrived
- Way in which the fotonovela was used:
  - Reading in class ☐/
  - Reading plus discussion of main points ☐/
  - Given to children to take home ☐/
  - As stimulus for:
    - Minidrama ☐/
    - Visit with guardian ☐/
- Is Litrosol available in your area at the health center, from the guardian, or at a store? ☐/ yes ☐/ no ☐/
- Have you used Litrosol at school? ☐/ yes ☐/ no
- What do you think of this material?_____

The cost of including the post card would be approximately US$100.

2. If the decision is made to go forward on the distribution of the fotonovela, arrangements should be made to inform teachers and MOE supervisors of this new CARE initiative. Two suggestions that would need no monetary support from CARE are: (1) a brief discussion of the materials and their distribution at the MOE January meeting for departmental supervisors; and (2) inclusion of

diarrhea treatment as an example of a "practical project" which could be considered for the teacher training curriculum now being planned on multigrade teaching techniques.

4. In communities where CARE has a water project, the distribution of PRASAR (Rural Water and Sanitation Project) school materials seems appropriate. Materials could be given to each CARE supervisor for distribution, since they are most knowledgeable about the communities with water systems.

PRASAR has developed single-concept materials related to water and health for use in the schools. By February 1983, a teacher's guide, comic book, and wall chart will be available. The cost of the packet is unknown, but it should not exceed US$5.00, even with the inclusion of 20 copies of the comic book Juanita y La Gotita for each school. The number of schools in communities with water systems completed or in progress is approximately 400. The total cost for materials would be US$2,000 and could be financed through CARE's outreach grant.

To strengthen the link between the school education and the community water project, CARE should print a packet insert containing ideas for familiarizing children with their community's water system. Examples of activities are:

- Inviting the community member responsible for maintenance of the water system to the school.

- A field trip to the old and the new water source.
- A tour of the community, tracing the water from source to house.
- Participation in some aspect of the water system maintenance.

Similar to the feedback system proposed for the fotonovela, a stamped, addressed return mail form should be included with the packet and $100 budgeted for printing and postage. Questions for the form include:

- Date material arrived
- Way in which they were used:
  - Has the wall chart been posted? ☐/ yes ☐/ no
  - Was the teacher's guide reviewed? ☐/ yes ☐/ no
  - Was the comic book read in class? ☐/ yes ☐/ no
  - Was the comic book taken home by students? ☐/ yes ☐/ no
  - Was the exam completed and checked? ☐/ yes ☐/ no
- Did the materials stimulate
  - Discussion? ☐/ yes ☐/ no
  - A visit to the community water project? ☐/ yes ☐/ no
  - Other activity?_____
- Have practices in the school related to water changed:
  - Preparation of drinking water? ☐/ yes ☐/ no
  - Storage of water? ☐/ yes ☐/ no

- Source of water? ☐/ yes ☐/ no
- What do you think of these materials?_____

_____

5. As designated in program regulations, a promotional poster for the program should be designed, tested, printed, and distributed to all participating school communities. The poster could depict a group of happy children gathered around a table at school with their snack. A few words would encourage parents to enroll their children in school. The AID logo could also go on these posters with the required wording about the food. If it were appropriate, thought could be given to making these flyers instead of posters. The flyers would go to the home where they could serve as a reminder about school attendance. US$3,000 should be set aside for the poster or flyer production from outreach grant funds.

The five suggestions described are activities which are feasible for implementation over the next year. Because materials development time is minimal, it may be possible for existing CARE/MOE personnel to oversee these activities. However, CARE should give serious consideration to hiring a person to work in health and nutrition education and promotion for all programs, including School Feeding.

The projected cost for the year is approximately US$9,700 for materials only, a small investment for something with the potential for great benefits. This amount could be

allocated from the outreach grant budget as follows:

| | |
|---|---|
| Fotonovela printing: 15,000 @ $.30 | $4,500 |
| School water and sanitation materials: 400 @ $5 | $2,000 |
| Stamped addressed post cards | $ 200 |
| Poster development and reproduction | $3,000 |

Each of the materials should be monitored closely by CARE, since this is being launched on a test basis. With adequate feedback, the problems in the system can be worked out easily, allowing for a smoother expansion. If CARE finds that the initial stage of this education component goes well, the following options could be considered:

1. Expand the coverage of the fotonovela and/or the water and health materials.

2. Support new materials. These might include materials for students on:

   (a) the consumption of specific foods;

   (b) nutrition and growth (if they are in schools going to the health center for growth monitoring);

   (c) gardens/food production (they could become involved in growing fruit trees if they are in the areas with a watershed project).

Other materials useful in promoting parents' clubs or in introducing new ideas to them could be considered. These materials might be some of the same ones that are distributed in the MOH program. As time permits CARE to explore the links between the MOE and the MOH on a central level

as well as on a community level, joint projects could be undertaken, resulting in better coverage in the community and improved utilization of community resources.

G. Recommendations:

1. Increase quantity and quality of field supervision for this program.
2. Encourage tighter compliance with program regulations at all levels.
3. Finish initial food distribution to all participating schools by February 28 of each year.
4. Encourage on-site visits for all potential new schools prior to their approval for the program or within the first four months of their participation.
5. Collect, computerize and analyze school attendance data from all participating and nonparticipating schools.
6. Encourage qualitative feedback from target schools and/or community groups to enrich interpretation of the quantitative feedback measures.
7. Encourage the formation of parents' groups to promote active community participation at the school, especially with regard to the School Feeding Program.
8. Promote and execute school field trips from participating schools to the area health center.
9. CARE, working in conjunction with the MOE, will

identify and distribute appropriate health and nutrition education materials to participating schools and promote their use. For example:

a. Revise teacher evaluation forms to encourage their initiation of health and nutrition education activities.

b. Distribute Salvaste a Tu Hermanita to 500 participating schools in two or three departments.

c. Participate actively in MOE supervisor and/or teacher training activities.

d. Distribute PRASAR school materials to participating schools situated in CARE water project communities.

e. Design, field test, print, and distribute a promotional poster.

## II. MATERNAL CHILD HEALTH FEEDING PROGRAM

A. Description: Since 1966, CARE and the Honduran MOH have been involved contractually in a MCH feeding program. Although the contract is only with the MOH, there are presently two other CARE counterparts: the JNBS (National Social Welfare Board) and individual community-based groups (e.g., housewives clubs, patronatos). With recent changes in the central government, the MCH program is presently undergoing major revisions. Therefore, the description of the program and the relationships with the counterparts is very situation specific.

The overall program has 979 centers with 80,810 beneficiaries, primarily malnourished children from 0-5 years of age, but also including pregnant and lactating women. The programs are divided between prepared food feeding centers and dry take-home ration centers. The targeted monthly rations per beneficiary are: 2.0 pounds of CSM, 2.0 pounds of NFDM, 2.0 pounds of all-purpose flour, 3.0 pounds of milled rice, and 1.0 pound of vegoil. All commodities are provided under the PL 480 Title II program. Detailed descriptions and plans for each of the counterparts' subprograms are provided below.

1. Community-Based Centers

Currently the largest subprogram in terms of beneficiaries is the group of 142 community-based centers with 10,810

beneficiaries. A request for inclusion in the MCH program is initiated in the community and sent directly to CARE and the appropriate counterpart agency. The community itself is responsible for identifying beneficiaries, transportation of the commodities, and food preparation. It is questionable whether the community groups can correctly identify malnourished children or, when once identified, whether food distribution can be restricted to just this group. There have been anecdotal reports of food only going to children of the members of mothers' clubs, food going to all village children, and even of food being evenly distributed among all village families. The communities lack the training and resources to measure program effectiveness, and unless an outside group (religious or small development organization) is involved, the amount of community promotion and/or education done with program beneficiaries is minimal.

Since it is difficult to provide CARE supervision for community-based programs, new centers of this type should only be incorporated when they can be affiliated with one of the other counterparts or with outside groups able to provide adequate supervision. It appears that the MOH or JNBS could provide an administrative framework for the program as well as provide growth monitoring, nutrition education, and community development activities. Existing programs should be allowed to continue, unless the above

food distribution irregularities can be substantiated; however, an attempt should be made to incorporate them under one of the other counterparts.

2. JNBS Centers

The second largest subprogram belongs to JNBS, which has 392 centers and 25,957 beneficiaries. These centers serve only prepared rations at feeding centers. The entire JNBS infrastructure has been reorganized; only the present system will be described in this report.

The entire subprogram is administered and overseen from 12 modules, five of which are in the large urban centers with the other seven in rural areas. These modules are concentrated in the south and west of Honduras, especially along the border with El Salvador. Each module has a director, several different promoters (e.g.,social, nutritional, economic, child development), and other workers. The promoters are expected to work directly with the communities, oversee existing programs, and organize new ones. Each of the 53 social promoters is responsible for approximately eight communities where they identify existing resources and needs, encourage the formation of community organizations, and strengthen existing ones.

The backbone of the JNBS program, the Centers of Infant Development (CDIs) works extensively with malnourished children and their families. At present there are 53 centers, each treating approximately 33 children with grades II and III

malnutrition (Gomez classification) and approximately 51 children with grade I malnutrition. Their reported figures showing only beneficiaries with grades I and II malnutrition reflect a misunderstanding of the Gomez classification, because in fact grade III children are included. The number of beneficiaries at each CDI is kept constant at about 84; if more children are present, the lesser malnourished children are discharged. The 33 more malnourished children receive three meals and two snacks daily. In addition, these children receive an intensive program in infant stimulation. The CDI staff works with the mothers in their homes on education and proper utilization of available family resources. The overall aim of the CDI is rehabilitation of both child and family, so that upon discharge from the program, the child's improved nutritional status does not deteriorate. The 51 lesser malnourished children are only provided one meal and two snacks daily and quite frequently are children who previously were more malnourished and are awaiting adequate home environment improvement before being discharged from the program. At present there is no active detection program for identifying new children for inclusion in the program.

The 202 rural JNBS feeding centers, lactarios, reach a total of over 17,000 malnourished children and pregnant and lactating women. These centers are run by individual community groups with technical assistance and periodic

supervision provided by the JNBS. Each center prepares and serves a meal, CSM-fortified milk, and a snack once a day. Children are weighed and monitored at the nearest CDI or health center. Requirements for community inclusion are a well organized and active community, accessbility to a CDI, and ability to weigh particpating children on a monthly basis.

3. MOH Centers

The smallest subprogram belongs to the Department of Nutrition of the MOH and has 183 centers and 21,873 beneficiaries. To date, only dry rations have been provided from CESARs (rural clinics). Malnourished children and pregnant and lactating women must come to the clinic on a monthly basis and participate in the health program in order to receive their ration. It is then the responsibility of the family to transport the ration back to their community. Transportation difficulties discriminate against the families living far from CESARs. This system places a great burden on the auxiliary nurse at the CESAR, because s/he is responsible for commodity inventory, repackaging, and food distribution. Since these nurses are often already overworked, there is considerable concern that this additional burden may prevent them from carrying out their necessary health duties. For example, the nurse at San Antonio del Norte said that she spends eight days a month working solely with the food program.

The Department of Nutrition is currently embarking on a new nutritional detection strategy for rural areas known as Detección Precoz. This strategy makes use of trained volunteer community health workers, guardians, to survey the community, detect possibly malnourished children by using arm circumference tapes, refer these children to the CESARs, and provide health/nutrition education. Regional training sessions are held for groups of 20-25 guardians to teach them some basics of nutrition, use of the arm circumference tapes, familiarity with the currently used forms, and the preparation of CARE commodities. The Detección Precoz program presently operates in 17 of the nation's 202 CESARs.

Active and ongoing use of the services of the CESAR is mandatory for program participants. Children from eight months to five years old who have been identified as possibly malnourished using the arm circumference measure * are referred to the CESAR, where they are weighed and measured. Only those children who are grades II and III malnourished (using a weight-for-age standard and the Gomez classification) and pregnant and lactating women qualify for participation in the program. However, children with grade I malnutrition will be included if they are under two years of age.

Health Regions I, II, and IV have been designated by the MOH as high priority areas for program expansion,

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* These children's measurements register in the yellow or red areas of the arm tape.

because of the low basic grain production, high infant and child mortality, and high rate of malnutrition identified in a 1976 SAPLAN study. These regions are located along the El Salvador border in the southwestern part of Honduras. One hundred three CESARs are operating there with both a CARE feeding program and guardians. These areas will be the first to which the program will be expanded. Theoretically, with improved detection in these areas, the number of beneficiaries should increase.

To place the MOH-operated subprogram of the total MCH feeding program in context, it must be understood that the MOH has four main foci for 1983: diarrhea, vaccination of children under two years of age, malaria, and respiratory diseases, especially tuberculosis. Nutrition and food are not priority issues and are addressed only when they are seen as part of the four foci. For example, the National Breastfeeding Campaign, PROALMA, is given attention by the MOH as a subcomponent of the diarrhea program, not as a nutrition program. The Department of Nutrition does not have division status, it is an office under the Division of Maternal-Child Health. Given these conditions, it is unlikely that the MOH will fully incorporate feeding programs into their operational plans or allocate major resources to the program. The CARE linkage with the Department of Nutrition must operate under these constraints.

B. Goals

FINAL GOAL: The improved nutritional status of approximately 80,000 malnourished children and approximately 15,000 pregnant and lactating women resulting in a reduced fetal, infant, and child morbidity and mortality, which will contribute to their future health and well-being.

INTERMEDIATE GOALS: (1) Increase protein and caloric intake for 95,000 malnourished children and pregnant and lactating women resulting in improved weight gain in the children.

(2) Promote the adoption of specific health and nutrition practices among the beneficiaries to achieve greater impact from their participation in the feeding program.

(3) Promote the formation and activity of community groups to work towards improvement of economic and health-related conditions within the community.

C. Beneficiaries: Given the changes that have recently occurred in both the MOH and the JNBS programs, plus the changes suggested in this report, it is presently impossible to accurately project program growth. It was clear from discussions with the MOH and JNBS representatives that attention will be given to strengthening the infrastructure to make it a more effective program, not simply a larger one. However, an annual increase of approximately 10% in beneficiaries is expected.

Currently the MCH program operates in 16 out of 18 departments in the country. Instead of increasing coverage in all areas, the proposed plan is to limit the geographic area of expansion. The MOH has identified Health Regions I, II, and IV as their priority areas for expansion. Within the priority areas the Department of Nutrition has identified 53 CESARs that have guardian programs but no feeding programs. The Department requested that CARE expand to these centers. However, to date the mandatory formal requests have not been received.

Interestingly, the JNBS rural modules predominate in the same regions designated by the MOH as priority. Counterpart groups are encouraged to carry out promotion activities in this geographic area to stimulate formal applications. Ideally, a comprehensive program of health services, education, and community participation would be carried out with the active, integrated efforts of all counterparts.

The proposed norms for the Supplementary Feeding Program published by the Department of Nutrition require monthly weights and heights for the children. At the present time there are many difficulties in using these two parameters to monitor growth, and nurses continue to use the long-standing measure of weight-for-age. Hopefully, some of the obstacles facing the conversion from a weight-for-age system to a weight-for-height system can be solved, since a weight-for-height system with clear standardized

classifications would be ideal for Honduras, where there appears to be a high level of chronic malnutrition.

In light of the new norms and geographic preferences, the recommended requirements for any new communities or centers to the program include:

1. Location in Health Regions I, II, or IV.
2. Access to adequate growth monitoring facilities. (Note: existing community-based programs without access to growth monitoring facilities will not have their participation in the MCH jeopardized.)
3. Willingness of the community (in community-run programs) to transport the commodities from the Distribution Point in a timely fashion.
4. Capability of the community or center (MOH, JNBS) to adequately store the commodities.
5. Capability of the community or center to adequately prepare, monitor, and serve the food (community and JNBS programs only).
6. Preparation and periodic update of a beneficiary list that is sent to CARE and the counterpart organization on a quarterly basis.
7. Preparation and mailing of monthly reports of commodity supply and consumption to CARE and the counterpart organization.
8. Active community participation (mothers' clubs, patronatos, etc.) in the feeding program and in other community projects.

9. Active community promotion and education (provided by the MOH guardians and/or the JNBS promoters).

The requirements for growth monitoring and community promotion will of necessity limit the program to primarily MOH or JNBS communities. Exceptions will be made for communities having a religious or social organization that can demonstrate the ability to meet these standards. In this way all new communities or centers can actively pursue each of the intermediate goals instead of only the feeding activity.

At the present time, the procedure for determining which individuals will be considered potential beneficiaries is not standardized among the counterparts: meaning that each group defines their own criteria and norms for both the selection and dismissal of beneficiaries. It is therefore strongly recommended that a single standardized set of criteria be adopted by all counterparts.

In an attempt to define these criteria, all existing norms have been examined and in-depth discussions have been held with CARE personnel and with the counterparts. The consultancy group recommends that the following criteria (taken with a few exceptions from the new Department of Nutrition Supplementary Feeding Program Norms) be adopted:

1. Children 0-5 months: Not eligible.

2. Children 6-24 months: Grades I, II, and III malnutrition (Gomez weight-for-age classification system).
3. Children 25-71 months: Grades II and III malnutrition (Gomez weight-for-age classification system).
4. Children over 71 months: Not eligible. (Exceptions may be made for severely malnourished children on an individual basis.)
5. Pregnant women: Included at any stage of pregnancy, terminated after delivery.
6. Lactating women: Included after delivery, terminated when no longer breastfeeding, or at 12 months after delivery, whichever occurs first.
7. Other women: Not eligible.
8. Men: Not eligible.

Children will be dismissed from the program when they have reached the level of grade I malnutrition (or normal for children 6-24 months of age) and have maintained this status for a period of six months. Norms for dismissal of pregnant and lactating women are described above.

The final point discussed in relation to beneficiaries was the ration they receive. The working group agreed that in general the on-site feeding programs are preferrable to take-home programs because they ensure that the beneficiary is receiving the food. In addition, many on-site feeding programs are providing meals, supplementing CARE rations with local foods. However, take-home programs will continue.

Recognizing that take-home rations are usually divided among all family members, lessening the impact on the individual beneficiary, take-home food should be provided in a family-size ration, rather than only the individual ration currently used.

Dissatisfaction with foods in the ration was never mentioned. In fact, substitution of CSM in place of the wheat-based blend has been noted by beneficiaries in all programs as an improvement.

D. Measurement of Goal Attainment: The complexity and extensiveness of a feedback system for the MCH program is subject to the same personnel and budgetary constraints discussed for the School Feeding Program. Development of the feedback system has been structured using the CARE format and is presented in the same sequence used in the School Feeding Program section; Intermediate Goal, PAT, and Indicators.

INTERMEDIATE GOAL 1: Improved nutritional status of beneficiaries.

PAT: Provision of food supplement to 80,000 malnourished children and 15,000 pregnant and lactating women.

Nutritional status improvement in this program can be expected with food supplementation. This is because monthly weights here provide a direct measurement of program impact in contrast to the School Feeding Program, where indicators were indirect. Another factor is the

much stricter targeting criteria which select for only malnourished children in the MCH program.

INDICATOR for INTERMEDIATE GOAL 1: Ninety percent* of beneficiary children actually gaining weight on a monthly basis.

Children will be weighed monthly on a standardized scale and measured. These parameters will be charted on a standardized Gomez weight-for-age growth chart to be maintained at the center. (When the weight-for-height system is in place, this will be substituted.) A quarterly report sent to CARE and the appropriate counterpart will contain monthly weights and Gomez classifications for each child. For each child it will be noted if the weight improved, stayed the same, or decreased. The desired outcome is for children to gain weight each month. However, with actual weights and nutritional status, the average amount of weight gain by age grouping and change in nutritional status versus length of time in the program could be examined.

INTERMEDIATE GOAL 2: Promote the adoption of specific health and nutrition practices.

PAT: (1) Provision of training and/or job-related materials to community personnel responsible for the promotion and

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* Weight gain in 90% of the program beneficiaries was chosen instead of 100% because it is anticipated that at least 10% will have extenuating medical circumstances that prevent weight gain.

education activities to the MCH feeding program.

(2) Provision of behaviorally oriented health and nutrition information to beneficiary families in participating communities.

This PAT will need to be made more specific by including the number of communities, workers, and materials that will be set as a target. Until some decisions are finalized about the amount of education/promotion activities that can be undertaken, these numbers cannot be set. However, in the text of the education section, some recommendations have been made among which the most quantifiable are:

1. Community representatives from approximately 100 JNBS and MOH centers to be trained in the Detección Precoz and provided with education materials directly linked to this exercise.

2. Approximately 1,775 communities to participate in the breastfeeding radio course.

3. Program supervisors should be supplied with PRASAR promotional materials for water and sanitation. Approximately 20 sets should be printed.

4. In communities with the Detección Precoz system, home records of the arm tape results could be kept. This would be tried initially in approximately 50 communities serviced by the five CESARs.

INDICATORS: Once target numbers are established, the indicator is the actual achievement of that number. The various aspects to measure are as follows:

1. % coverage of training in Detección Precoz/ Nutrition Education = Number of community persons trained / Number programmed (3 each X 1,000 communities under 100 centers)

2. % target area covered with Detección Precoz system and education materials = Number of communities with activities and materials / Number programmed

3. % target area covered with breastfeeding course = Number of communities with members completing course / Number programmed

4. % supervisors trained and using water and sanitation materials = Number of supervisors trained and using materials / Number programmed

These indicators are specified for only a few of the educational/promotional activities which seem most feasible. As plans develop new indicators will need to be added. These indicators are only measurements of coverage and are by no means evaluating the effectiveness of the education. It is hoped that if the materials and activities are well planned and designed that they will have some degree of effectiveness. However, once underway it will be important to assess effectiveness through some spot check interviews with community workers and program beneficiaries.

INTERMEDIATE GOAL 3: Promote the formation and activity of community groups.

PAT: (1) Extension of community promotion activities to a minimum of 100 new beneficiary communities per year.

(2) Improve program supervision and in so doing indicate to communities and centers that they are part of a larger effort and that people are concerned with program quality.

INDICATOR: (1) Number of new community groups formed in the last year in beneficiary communities.

(2) Percent of beneficiary communities with active community groups.

(3) Number of community supervisory visits per year.

(4) Percent of beneficiary communities and centers visited per year.

E. Options for Program Improvement and Expansion: As stated earlier, the consultants encountered the MCH Feeding Program in a state of flux, which made a definitive outline for the future impossible. It is an exciting time for the program because all parties seem open to frank discussions of the program's problems and proposals for improvement. Many options for the entire MCH program have been raised and discussed: new activities, modifications in policies and a reorientation in counterpart relationships are among them. Below are the options (in no particular order) which are under consideration and will be the focus of CARE's continuing discussions and negotiations with the INNC and MOH.

1. Status quo: Continue the system under the present guidelines.

2. Conversion of the MOH subprogram to place the food into the communities under the responsibility of the guardian, still as dry, take-home rations.

3. Replacement of the dry ration, take-home, CESAR-based subprogram with prepared food, on-site, community-based system, still monitored through the MOH.

4. Complete integration of the MOH and the JNBS subprograms.

The pros and cons of each of these options are detailed below.

The status quo option is included only because it will be pursued until a new arrangement can be made or if all other negotiations fail. The program has been functioning for some time, and each counterpart is aware of program inadequacies in the present system. In the JNBS subprogram, there is insufficient access to the health system. In the MOH subprogram, the tasks of food distribution and community promotion are the responsibilities of an already overburdened auxiliary nurse. In the community-based subprogram, there is no provision for community promotion, health/nutrition education, or access to the health system. Each group is desirous of some change to deal with their identified problems.

The second and third options apply only to the MOH subprogram. These plans attempt to decrease the work load

on the health auxiliary in the CESAR. Option 2 switches the food distribution from the paid auxiliary nurse to the volunteer guardian. Distributing food at the community level may increase the prestige of the guardian within the community and possibly decrease the guardian turnover rate. Also, more families are expected to participate in the program because the food will be more accessible. Community promotion and health/nutrition education will be done by the guardian. The drawbacks are: the present high guardian attrition rate (reported as high as 75%), the concentrated work load placed on a volunteer, commodity transportation, and storage difficulties. Another weak link is the present lack of community promotion training for the guardians.

The third option places the responsibility for food preparation and distribution on the community with guardian supervision, rather than solely upon the guardian. Implementation of this option will require good organization and the strengthening of community groups. The prepared food programs are also more effective in targeting the food to individual beneficiaries. Other pros and cons of removing the food from the CESAR are the same as those presented for Option 2.

The MOH uses its food as a drawing card for their health program. Their concern with both Options 2 and 3 is that the community-based food distribution removes the incentive

for clinic attendance provided by CESAR-based food distribution. In an attempt to alleviate MOH concern, a health card system was presented. Each month the beneficiary (malnourished child) would go to the clinic for weighing, examination, and vaccination (if applicable). At the clinic, the child would receive a card that would be required to enter a feeding center or to receive the dry ration from the guardian. For a feeding center program, each card is marked with 30 boxes. Each day at the feeding center, one box would be marked. The card would be valid until all boxes have been marked. It would be incumbent upon the mother to get the child back to the clinic for weighing and a new card before the card is used up. With the guardian dry ration system, the card is given to the guardian in exchange for the food. If some food continues to be distributed at the clinic, the mother would either get the food or the card from the nurse, but never both. In this way, no one will be able to get double rations. In both options where food is distributed in the community, use of the card will maintain the incentive to participate in the MOH health system.

Option 4 has great potential, its strengths are the opportunity for community promotion and the complementary use of the counterparts' resources. Each of the MCH counterparts has its own respective strengths: the MOH is strong in provision of health care and vaccines, growth monitoring, malnutrition detection, and nutrition education from the

guardian; the JNBS is strong in community promotion and in commodity transport. A possible integration plan would be for the JNBS to pay for all transportation of commodities as far as the Distribution Points and do the necessary promotion within the communities working closely with the MOH guardians. The guardian could concentrate on detecting malnourished children and providing health/nutrition education in the community. The MOH would finance monthly growth monitoring and vaccinations for all MCH beneficiaries to take place at the CESARs, which would mean the incorporation of more families into the MOH health system. Finally, the community groups collaborating with both the MOH and JNBS would be directly involved in the feeding program; hopefully strengthening these groups. The main problem encountered with this option is the governmental bureaucracy involved in negotiating a cooperative venture between two different government agencies. Also, Option 4 is applicable only in geographical areas where both the JNBS and the MOH are working, which limits the geographical scope of this option to Health Regions I, II, and IV.

None of the options involve the community-based programs. Where possible, these programs should be incorporated under either the MOH or the JNBS subprograms. Since further expansion of this subprogram is not recommended, other options were not explored.

It should be understood that for all of the options, local conditions and personnel will limit the choices, and each municipalit

will have to be considered on an individual basis. It is recommended that CARE, MOH, and JNBS explore and possibly field test each of these options. Necessary modifications and expansion can then proceed in accordance with actual experience. For this reason, preference will not be given to any single plan at the present time.

F. Management: It is very difficult to present specific management guidelines for the MCH program until the extent of counterpart cooperation in the above options is decided. General suggestions are presented here which can be elaborated in more detail after the program options have been more fully explored by the counterparts.

Management considerations fall into two main categories: those related directly to the commodities, and those related to community promotion and education. Many of the commodity-related items were discussed in great detail in the school feeding section. Only deviations from the previously described management system will be treated in this section. Community-related considerations are described here, and specific program possibilities for incorporation into the system will be described in the education and training section.

- Commodity-Related Considerations

Commodity distribution for the MCH program takes place on a quarterly basis. In each of the subprograms,

it is the responsibility of the counterparts to transport the food from the CARE central warehouse to their respective centers. This could possibly change with the adoption of Option 4, described in Section E. Continued presence of food in the centers is dependent upon timely distribution.

To smooth the commodity flow, there will be a staggering of distribution times between regions. Within a given region, all centers will be assigned the same month for pick-up. Overall, there will be regions assigned different months to spread the distribution over the entire year. Inclusion of new communities into the system will only occur at the start of the new quarter.

Ongoing maintenance and expansion of storage facilities represent continuous expenses for the counterparts. Each counterpart should be setting aside money for these facilities on a regular basis. The JNBS, either at the central level or at the local level with central financing, also has the responsibility to maintain its feeding centers.

Adequate field supervision is vital for monitoring storage and feeding facilities and the actual functioning of the program. Through the outreach grant funds, five new vehicles and travel expenses for 750 travel days have been received to increase the number of supervisors in the field. Taking subprogram size and community outreach potential into consideration, three of the vehicles should be assigned to the JNBS and two to the MOH along with the

respective proportions of the travel money. All of the existing MCH centers or communities should be visited annually, and all sites for future program expansion should be visited prior to approval. JNBS and MOH should each be responsible for visiting their own sites as well as assigned community sites. The CARE supervisors should collectively visit approximately one third of all programs each year, concentrating more heavily on the community-based programs. The computer program for random selection of site names described in the School Feeding Program section will be used to produce the list of centers or communities for the CARE supervisors to visit.

Proposed examinations of the storage facilities are almost identical to those proposed for the School Feeding Program. The main difference is that five commodity items must be measured separately, instead of two.

Feeding facility examinations should check the following:

1. number of beneficiaries fed on day of visit;
2. adequacy of food preparation facilities as compared with CARE guidelines; and
3. adequacy of dining area and eating utensils, glasses, etc., as compared to the CARE guidelines.

For community-based programs it is the responsibility of the community to arrange transporation and adequate storage for the commodities as well as to prepare and distribute the food. Supervisor examination should be done according

to the same guidelines established above.

- Community-Related Considerations

Ongoing supervision is necessary at the community level and should be incorporated into the facility visits for supervisors described above. Community examinations should note:

1. presence and activity of community groups;
2. presence and activity of guardians (note whether guardians have been trained in nutrition, if they have education materials and how they use the materials);
3. identification of outside agencies in the community;
4. presence and activity of health-related projects--latrines, water systems, gardens, etc.
5. overall impression (rating system--excellent, very good, good, poor, bad).

During community visits, supervisors should work with the community promoters and guardians, wherever possible, to assist them in their attempts at promotion and mobilization for projects such as food preparation, construction of latrines, and home or community gardens. CARE, MOH, and JNBS supervisors could significantly aid the effort to improve the MCH program if they had time to make contributions to the projects that strengthen community self-sufficiency.

rather than spending all their time on the feeding/food aspect of the program. Various groups can work together in other types of self-help projects. For all schemes, energetic supervisors, promoters, and guardians are important for community organization and motivation to action.

Education materials are quite scarce at the community level, making education activities quite difficult. The following section presents several possible community projects and details the materials and training needed at the community level. CARE, working with the counterparts, should examine each of these projects considering the cost as well as the logistical issues of materials acquisition and distribution. Fewer projects carried out well will have a much greater impact than haphazard treatment of a great many projects.

C. Health/Nutrition Education and Training Component: The addition of a strong health/nutrition education component to the MCH program is crucial if program goals are to be realized. The decision to promote well thought out activities both for training and public education will help consolidate and focus the program. Additionally, if these activities are planned and executed correctly, program beneficiaries and their families can become more responsible and involved in the improvement of their own circumstances.

lessening dependence on donated food. In order to construct an education component two types of activities must be considered:

1. specific job training and support of people working in the program, both at a community and regional level; and
2. providing appropriate and relevant health/nutrition information to the beneficiary or the beneficiary's family.

The prospect of developing a health/nutrition education plan for the MCH program is exciting and challenging. To date very little has been done, and just as the total program could develop in many different directions, so could the education component. CARE is currently considering a serious commitment to an education component. The activities described in this section of the report are ideas for some first steps. They were chosen because they are crucial for the beneficiary's understanding of program interventions (e.g., growth monitoring materials), or because models or actual materials already exist in Honduras* (e.g., PROCOMSI and PRASAR materials). However, even for these first steps, and definitely if CARE makes a commitment to education, there must be a concomitant agreement

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* Before any additional planning is done, the report on the diagnostico on nutrition education in Honduras, written by INCAP and available in the AID Mission, should be examined for existing materials that may not have been identified during this consultancy.

to increase the program's staff and budget.

Training and Support of Community Workers

Regardless of how the new MCH program finally takes shape, there will be more emphasis placed on program implementation at the local level. The pros and cons of this emphasis have been discussed earlier, and when weighing the options, the role of education and training should not be forgotten as ways to alleviate many of the already identified problems associated with programs run by community volunteers, such as desertion, lack of motivation, or improper completion of a task. Proper, task-related training and periodic contact through the radio or the distribution of a new material can better prepare the person for the job, help him or her take more pride in the work, and experience a stronger connection to a larger effort that involves people like themselves.

The term 'community worker' used throughout this section includes MCH volunteers (the guardians, representantes, and, if applicable, the trained midwife), as well as those working for the INBS and community programs, whether these latter volunteers are from the patronato or the housewives' club. Ideally the activities listed below would be applied gradually, but universally, over time in all three MCH subprograms.

a) Training in nutritional status screening

Eventually every community should implement a simple system for detecting and monitoring the nutritional status of children 0-4 years old. The Detección Precoz armtape system developed by the MOH Department of Nutrition is one of the least complicated to adopt. The Department of Nutrition has designed a three and a half day course to train guardians to conduct a community survey every three months. This survey includes nutritional status screening using the armtape and the collection of family background information. The consultants were able to observe a day of this training and urge CARE to support the training for workers in communities supervised by the MOH and JNBS. However, modifications are necessary in the current scheme. The desired modifications are two:

1. Revise the community survey form. The present forms asks for information apparently irrelevant to the scope of the program (e.g., what the family cultivates), while other information is not recorded (e.g., the child's birthdate). Additionally, the mimeograph reproduction is difficult to read and the boxes are too small to be filled in easily. The format should be one that allows the family information to be entered once, and space should be provided to permit the nutritional status information to be recorded periodically. As the form is designed now, all family information would have to be rewritten every six months: the equivalent of every two nutritional status screenings.

2. Revise the nutrition education component's training to strengthen the understanding and utilization of the arm circumference tape. Currently, the education provided for the community worker is general, listing facts on a variety of topics. It is not focused on any particular community problem or task that the health worker must complete. The significance of the current training module is that the type of education community workers receive is the kind that they will convey to families; in this case, general nutrition facts.

If the armtape detection system is instituted, there will be an ideal situation to make this a tool for education. The community worker can be provided with nutrition information specifically related to the job of nutritional status screening. The messages can be tailored to the outcome of the screening. Therefore, the concepts the community worker learns will have relevance to the families, because they will be determined by each child's nutritional status.

The educational module proposed is one specific to the outcome of the screening. For example, if a nine month old child's arm circumference measurement is in the yellow zone on the tape, the community worker would recommend that the child be given two more tortillas and three extra spoonsful of beans per day. On the other hand, if the child is 14 months old and the arm circumference measurement is

in the red zone, the advice would be to feed the child an extra plate of food each day, plus extra tortillas and snacks, like cassava, in addition to taking the child to the health center and enrolling him or her in the food program.

It has been proposed that the Detección Precoz system be implemented incrementally in only a few centers (approximately 25 JNBS and 25 MOH) each year, so the training could be incremental and would allow time to perfect the nutritional status screening education materials. In this way, also, the training costs on a yearly basis would not be excessive. One course, conducted for a CESAR and the area it services, attended by 30 participants and instructors, costs approximately US$650. If 50 courses a year were taught, US$32,500 would be needed, exclusive of training and education materials. The education materials for the approximately 1,500 trained community workers could be estimated at US$4,000. The money for these activities could come from the $25,000 programmed for nutrition surveillance in the outreach grant, plus some outreach money programmed for training and teaching aids.

b) Training in nutrition education

At present one of the principal jobs of the community worker is education and promotion. Usually this is done at large community meetings on days when someone from the CESAR or supervising agency visits the community. The talks, charlas, are didactic in nature and are thought to be ineffective.

It may be possible to expose health workers to some new techniques for group education during the same training session where they learn about individualized education linked to nutritional status screening. Once finished, the CARE/SAPLAN training manual should offer guidelines for the inclusion of participatory techniques into group education sessions. The manual would be most useful in modular form. This is suggested because support materials are needed for each module, and the ability to produce, print, and distribute these materials is limited. The time allowed for the training course is also restricted. The only training currently planned for community workers is in connection with the Detección Precoz system. It would be possible to introduce participatory techniques and, perhaps, one or two topics, but not everything covered in the manual at one training session. Also, certain topics are high priority in MOH programs and training on these topics would be well received and support other programs. Those modules that would be most appropriate for introduction are diarrhea and breastfeeding.

The feasibility of introducing participatory techniques depends upon the completion of at least a few parts of the manual. At this time it is difficult to project costs to CARE for completion of the manual and the production of support materials for the participatory process.

c) Training on breastfeeding

The PROCOMSI project has prepared a 12 week radio program called "Ama...Mas" for interested community people. PROCOMSI will be broadcasting the program, beginning in January, on three national radio stations, but will only be distributing booklets and officially giving the course in Health Region I. It is probably impossible for CARE/MOH to make time in the hectic month of December to print and distribute the booklets in Health Regions II and IV. Therefore, at a later date arrangements should be made with the PROCOMSI project for a rebroadcast of the course for community workers in the CARE communities (at least in Health Regions II and IV), so that they could receive training in the basics of breastfeeding.

What is needed to complement the radio broadcasts is a booklet that summarizes each lesson and contains questions on each lesson and the final exam. Each booklet costs US$.15 to print. If eight booklets (three for community workers and five for other individuals) were made available to each CARE/MCH community with community workers (1,775 communities), 14,200 booklets would be needed. The printing costs would be US$2,130 and could come from the outreach grant. If this is not done in January, it may be necessary to buy radio time, but this activity is difficult to budget at the present time.

If CARE cannot distribute the booklets in January, then the booklets could be distributed to the health centers with the food and from there to the communities with the guardian of beneficiaries. Still, it would need to be aired to tell

people about the course, but also to announce the names of the participating regions and centers so that people in non-CARE areas would not be confused.

The coverage of the CARE communities with the breast-feeding course will be easy to assess, because people taking the course must go to the health center to take an exam and to obtain a certificate. The exams or some record of how many certificates to "Ama...Mas" were awarded could be sent to CARE/MOH by the clinic nurses.

d) Training on health topics

The Department of Health Education in the MOH is in the community research phase of a project which will produce participatory materials and training modules for community workers, especially the guardians. CARE should stay informed of their progress and explore the possibilities for collaboration.

2. Support of Mid-Level Workers and Promotors

The quantity and quality of the work done by community workers is often dependent upon the training and supervision they receive. In this section, the people providing these services to community programs and also working directly with program beneficiaries are called mid-level workers. This group includes auxiliary nurses at the health center, the regional health promoter, INSS promoters, and--in some cases--the CARE program supervisors. While a

great deal of training and materials is needed, a few specific items seem most relevant.

a) Growth monitoring education materials

This support material is similar to that suggested for the guardian responsible for screening with the arm-tape. However, this material would be specific to monitoring based on weight gain.

The nurse responsible for weighing and measuring the program beneficiary monthly at the CESAR should have an age- and monitoring-result-specific message to give to the family that is coordinated with the advice they received from the guardian in their community. The advice would focus on what the family can do with their own resources to improve the status of their child.*

This advice could be the basis of a contract whose terms the parents must try to fulfill; the contractual obligation is that the child must gain weight. The family is given food and advice on what they should do over the next month to ensure that their child gains weight. If the child, after a stated amount of time (three months) cannot show any improvement, the family will be dropped from the program. Usually the provision of some extra food either specially prepared

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* For example: If the child is nine months old and has not gained weight for one month, the nurse will recommend that the child be given two more tortillas and three extra spoonsful of beans per day.

from the ration or from the family pot is enough to enable a child to gain weight and for the family to remain in the program.

The support material could take the form of an illustrated flipchart, which not only will make it easier for the nurse to explain health information to the family, but will also remind him or her of the message. This would be a material that CARE would need to support through the developmental as well as the printing and distribution stages. Approximately 200 CESARs would need this material. Probably it could be produced for US$4,000.

b) Water and sanitation promotion material

The PRASAR project, discussed in the school feeding health/nutrition education section, has developed materials for motivating the community to analyze their water situation and to plan a solution. The flipchart is particularly useful for promoters in areas where a water project is being planned. CARE contacted the PRASAR project and is considering the purchase of these flipcharts for their own supervisors and perhaps for other promoters in the INBS or MOH program. Unfortunately, the cost of the flipchart at about US$35 would limit the number CARE could purchase. But it would not be unreasonable to program 20 copies for the next year at a cost of US$700 and make arrangements for PRASAR to conduct a brief training session in how to use the flipchart.

c) Food program materials

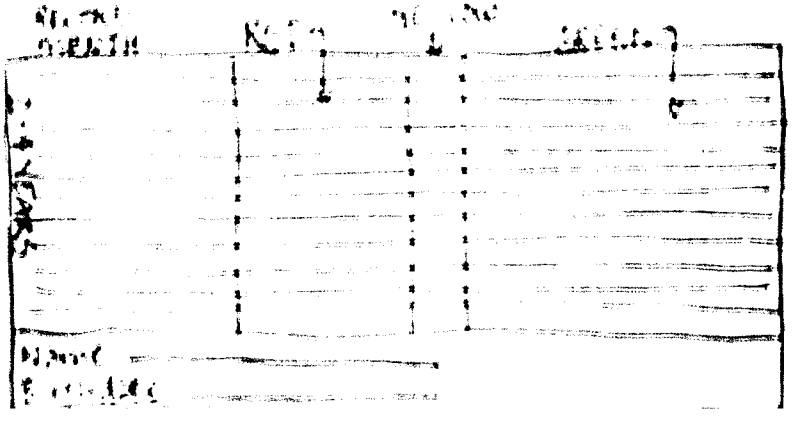
With so much of the focus of the MCH program on community operated on-site feeding programs, it might be useful to develop some promotional/motivational materials for the promotors to use in their work to establish new or improve existing community programs. This material should focus on the problems facing a community with malnourished children, the solutions to the problems, the need for community organization, and the tasks that comprise a good feeding program.

3. Education for Program Beneficiaries

Although the principal medium for providing information to program beneficiaries will be the community and mid-level health workers, some consideration should be given to providing the beneficiaries directly with materials.

a) Growth monitoring materials

An armtape card for recording the results of the arm circumference measure could be provided to each family to make the armtape screening done by the guardian a monitoring tool and to involve the family in the activity. The card could be designed like the one below.



The card is exactly the same length as the armtape. It would be as wide as 12 armtapes and would provide space to record the child's name and birthdate. One side of the card would be for children less than two years old and the other side for children two to four years old. Each side of the card would be marked in green, yellow, and red bands as they occur on the tape.

To use the card for monitoring, the worker measures the child's arm circumference, marks it on the tape and then lays the tape on the card to transfer the mark on the tape to the card (see the X marks on the model card). With this system, the family and the community worker can see the child progressing.

Implementation of this card is something that will require a great deal of discussion and that could be undertaken on a pilot basis in the areas where the Detección Precoz system is working. It is not likely that this card would be used with the next year and probably not until the arm circumference system has received wide acceptance.

b) Breastfeeding education

See discussion of the radio course "Ama...Mas" (p. 66) under Community Worker Training. This also is intended for some program beneficiaries.

c) Other health and nutrition materials and a promotion poster

As new materials are deemed necessary for the public on different topics, they should be carefully designed. The

family should not be deluged with information, but rather presented with a situation and offered concrete suggestions which they can implement and incorporate into their daily pattern.

Like the School Feeding Program, the MCH program is required to produce a promotional poster that carries the PL 480 logo and states that the food in the program is donated by the United States. Printing of these posters has been included in the contract signed with the MOH and money should be available. The poster needs to emphasize the feeding program, but it could also carry a more generalized message applicable to the three different MCH subprograms. For example, a pregnant woman and a lactating woman could be shown drinking from glasses and a toddler could be shown eating from a plate full of food. To the side, the bags of commodities, as people know them, could be shown. The message: "Women and Children Need Extra Food." For maximum impact from this effort, the poster should be carefully tested.

d) Cooking demonstrations

In areas where a take-home ration is used, cooking demonstrations should be programmed to ensure that the women know how the donated foods can be used. However, these cooking demonstrations could go beyond only the use of the commodities and touch on appropriate weaning foods or snack foods from locally available ingredients. If these demonstrations proved useful in areas with a take-home program, the

demonstrations involving local ingredients could be extended to on-site feeding programs.

A wide variety of ideas have been outlined above. After review, if CARE could implement a few activities in the next year, it would provide a better idea of the level of effort needed in the future and of the mechanisms that will offer the best results for training community workers and for providing information to the public.

The projected cost for implementing some of the above suggestions is $43,330 for materials; personnel costs would be additional. Much of the cost could be covered through outreach grant money allocated in the following way:

| | |
|---|---|
| Training in nutritional status screening..... | $32,500 |
| Education materials for community screening..... | $ 4,000 |
| for CESAR monitoring..... | $ 4,000 |
| Materials for the breastfeeding course..... | $ 2,130 |
| Water and sanitation promotion materials..... | $ 700 |

## II. Recommendations

1. Target program expansion to the priority regions as defined by the Ministry of Health (Health Regions I, II, and IV).

2. Restrict expansion of community-based programs to those that can be incorporated into either the MOH or the JNBS system.

3. Encourage monthly anthropometric measurements of all children that are program beneficiaries.

4. Improve the quantity and quality of community-level supervision.

5. Encourage active and ongoing community-level promotion by all counterparts.

6. Develop necessary computer software and encourage better counterpart compliance with information feedback to enable ongoing evaluation of goal attainment.

7. Encourage greater communication and cooperation between MOH and the JNBS:

a. adoption of a single standardized list of criteria for selection and dismissal of program beneficiaries;

b. incorporation of the Detección Precoz (MOH nutrition screening) system into the JNBS community-based programs;

c. incorporation of JNBS program beneficiaries into the MOH CESAR health maintenance system; and

d. utilization of the existing JNBS commodity transportation and storage network for distribution of MOH subprogram food.

8. Test on a pilot basis the conversion of MOH take-home ration programs to community-run on-site prepared food programs. In areas where dry rations continue, family-sized portions are advised.

9. Undertake a well-defined, multiyear health/nutrition education project.

a. Consider employing a person to coordinate community promotion, education, and training activities.

b. Educate program beneficiaries using multiple media.

c. Assist MCH program counterparts in improving training and support to community-level workers:

(i) training in nutrition status screening (Detección Precoz);

(ii) development of support materials for nutrition status screening education;

(iii) improvement of general nutrition classes through use of participatory methodology and specific behaviorally oriented messages;

(iv) training in breastfeeding techniques ("Ama... Mas" course).

d. Assist MCH program counterparts in developing support materials for mid-level workers (promotors, supervisors, auxiliary nurses):

(i) provision of education materials related to growth monitoring; and

(ii) provision of education materials related to water and sanitation problems.

10. Examine community-level program implementation on a periodic basis, collecting both quantitative and qualitative data. This examination will enable comparison among the different program designs and, therefore, a more informed choice of future program directions.

## III. Recommendations for Future Technical Assistance

The general recommendations of the consultant team led CARE to make suggestions about the areas in which more assistance will be needed if the feeding programs are to encompass many of the new activities. The consultants concur on the need for the following assistance:

1. A computer software specialist to develop programs and assist with analysis required for good program management and evaluation.

2. A health/nutrition education specialist to assist CARE in elaborating a Multiyear Plan for an education project. This assistance would be necessary if CARE/Honduras decides to make a major commitment to education. It would be most useful if this person did not arrive before some of the major decisions and operational plans have been defined for the MCH program. Also, it would be advisable if CARE had begun to implement some of the education component suggestions in this report, so that there would be some experience from which to draw in elaborating the plan.

3. A community-level program specialist will assist in elaborating a protocol for the investigation of all aspects (logistics, information system, community development, community and community worker participation, nutrition impact, nutrition related practices and counterpart cooperation) of the MCH program in order to compare options and select the most effective program design.

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   e. School Feeding Project

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10. Secretaría Técnica del Consejo Superior de Planificación Económica, "Detección Precoz y Tratimiento del Desnutrido Como Apoyo al Programa," Tegucigalpa, Honduras, August 1979.

# APPENDIX I

## LIST OF PERSONS CONTACTED

### CARE/Honduras

| | |
|---|---|
| Justin Jackson | Country Director |
| Jeannette Whitfield | Food Program Officer |
| Michael Bowman | Food for Work Project Officer |
| Jaime Henriques | Water Project Officer |
| Ron Savage | Watershed Project Officer |
| Roy Medina | Field Supervisor |
| Thomas Samiento | Field Supervisor |

### CARE/New York

| | |
|---|---|
| Mary Ruth Horner | Nutrition Adviser |

### Ministry of Education

| | |
|---|---|
| Prof. Ruben Martinez Rodas | Director, General Primary Education |
| Prof. Alejandro Reyes Villagra | School Feeding Service |
| Lic. Carolina Zepeda de Gonzalez Muñoz | Director, Educational Resources Department |
| Lic. Estela Diaz de Chanson | Education Materials Production |

### Ministry of Health

| | |
|---|---|
| Dr. Juan de Dios Paredes | Acting Director General |
| Lic. Molaes Sanchez | Head, Nutrition Department |
| Lic. Dunia Perez | Nutritionist, Nutrition Department |
| Lic. Eduardo Aguilar | Nutritionist, Nutrition Department |
| Aux. Nurse, Health Promotor and Guardians | Health Center, San Antonio del Norte |

### National Social Welfare Board

| | |
|---|---|
| Lic. Anacleto Castro | Director, Social Prevention Department |
| Lic. Irma de Tejeda | Subdirector, Social Prevention Department |
| Lic. Carmen Castillos | Assistant to the Director, Social Prevention Department |

### AID/Honduras

| | |
|---|---|
| Ron Witherell | Director, Human Resources Development |
| Kathy Simmo | Chief, Nutrition Sector Programs |
| Santiago Valladares | Program Officer, PL 480/Title II |
| Marcia Bernbaum | Ch[illegible], Education Sector Programs |

### AID/ROCAP

| | |
|---|---|
| Elena Brineman | Nutrition Adviser |

AID/Contractors

| | |
|---|---|
| Betty Booth | PROCOMSI Project |
| Carl Kindall | PROCOMSI Evaluation Project |
| Dennis Foote | PROCOMSI Evaluation Project |
| Fred Hartman | Management Sciences for Health |
| Oscar Vigano | PRASAR Project |

Pan American Health Organization

| | |
|---|---|
| Phyllis Autote | Maternal-Child Program |

World Food Program

| | |
|---|---|
| Francisco Roque Castro | WFP Representative |

Catholic Relief Services

| | |
|---|---|
| John Contier | Country Director |

Others

| | |
|---|---|
| Judy Canahuati | La Leche League International |
| Marijke Velzeboer | Pueblo a Pueblo |

# APPENDIX II

## Honduras Statistical Summary (Taken from CARE's MYP)

| | | |
|---|---|---|
| Area in square kilometers | 112,000 | |
| Population | | |
| 1981 (millions) | 3.821 | 1/ |
| 1982 (millions) | 3.955 | 1/ |
| Annual percentage increase (%) | 3.5 | |
| Density per square km. (1982) | 35.3 | |
| Gross National Product (1981, $ millions) | 2561.0 | 2/ |
| Per Capita GNP (1981, dollars) | 670.4 | |
| Gross Domestic Product at factor costs (1981, $ millions) | 2384.5 | 2/ |
| Per Capita GDP at factor costs (1981, dollars) | 624.1 | |
| National Income (1981, $ millions) | 2077.0 | 2/ |
| Per Capita National Income (1981 dollars) | 543.6 | |
| Crude Birth Rate per 1000 | 49.3 | 3/ |
| Crude Mortality Rate per 1000 | 14.2 | 3/ |
| Infant Mortality Rate per 1000 live births | 117.0 | 3/ |
| Life Expectancy (years) | 55.4 | 3/ |
| Apparent Illiteracy (%) | 40.5 | 4/ |
| Population 7-13 years old (1981) | 723,336 | 4/ |
| Enrolled in school (%) | 83.0 | 4/ |
| Number per 100 enrolled completing sixth grade 1975-1980 | 24.0 | 4/ |
| Pre-school age population in kindergartens (%) | 4.3 | 4/ |
| Secondary school population in school (%) | 17.2 | 4/ |
| Population 20-24 years of age in universities (%) | 6.0 | 4/ |

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SECTORAL CONDITIONS AS RELATED TO POORER SEGMENTS OF THE POPULATION (Adapted from CARE's MYP)

## Health and Nutrition

Less than half (47 percent) of the population has access to basic medical attention, and most of this is through the village based primary care system staffed by volunteers. Unfortunately, this primary care system has many weaknesses, among them an estimated 75 percent desertion rate among guardians. 1/ Only about 10 percent of the families in rural areas and 40 percent in urban areas have incomes equal to or higher than the level required for an adequate diet. Safe water is supplied to only about 30 percent of the population. 2/ 72.5 percent of the preschool population (approximately 500,000 children) suffers from malnutrition. For each 1,000 inhabitants there are 3.1 doctors and 0.9 hospital beds. 3/

In the current five-year national health plan, it is said that Honduras has the third highest crude mortality rate (14.2/1,000) and the third highest infant mortality rate (117.0/1,000 live births) in Latin America and the Caribbean. In rural areas of Honduras these rates rise, respectively, to 16.5/1,000 and to 127.2/1,000. 4/ The Diarrhea Control Working Group in the Ministry of Health, in a staff paper, estimated the infant mortality rate in rural areas as high as 138/1,000 live births.

These high mortality rates are mainly due to infectious diseases that could be prevented through improvements in environmental sanitation, vaccination and health education.

Diarrhea and accompanying dehydration is the single greatest cause of infant deaths, accounting for 23.3 percent of the recorded infant deaths in 1979. 5/ Diarrheal diseases are intimately related to malnutrition and food wastage.

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1/ Personal communication, Dr. Fred Hartman, Management Sciences for Health.

2/ USAID, Country Development Strategy Statement (CDSS) for FY1983.

3/ Statement of Mrs. Suazo Cordova, President of the National Social Welfare Board, published in the newspaper La Tribuna, March 29, 1982.

4/ National Development Plan: National Health Plan 1979-1983.

5/ Anuario Estadístico of the D.G. de Estadístico y Censo, 1979.

The GOH's extremely ambitious 1987 goals are to provide health care, safe water and waste disposal facilities to 85 percent of the population and to reduce the infant mortality rate by about half to 50 per 1,000 live births. The Ministry of Health has established its priority programs to help achieve these goals. The four priority programs in health are: (1) treatment and prevention of diarrheal diseases; (2) immunizations; (3) malaria control; and (4) respiratory diseases, especially tuberculosis.

Education

The percentage of school-age population enrolled (at the beginning of the year) is 9.1 percent at the pre-primary level, 91.6 percent at the primary level, 23.2 percent at the secondary level, and 6.0 percent at the university level.

In urban areas 97 percent of school aged children are enrolled in schools. In the rural areas with 65 percent of the school aged population, 71 percent are enrolled at the beginning of the year and 60 percent at the end. Only 126 out of 1,000 first grade entrants can be expected to finish the sixth grade. The average attainment is under two years in rural areas. Because of drop-out and repeater rates, it takes 18-19 years of classroom time to produce one sixth grade graduate in rural areas. 1/ The apparent illiteracy rate is 40.9 percent nationwide, 19.7 percent in urban areas, and 51.7 percent in rural areas.

The quality of education for those receiving it is poor. Combined with poor health and nutrition, this produces a weak human resource base that impedes development. The highest GOH priority in the education sector is improving primary education.

The GOH objectives are to achieve by 1987 a 95 percent enrollment rate through the sixth grade in rural areas; an effective literacy rate of 70 percent in the population under age 15; and the extension of basic education to nine years.

The Ministry of Education receives a larger share of the operating budget than any other ministry. Most of the MOE budget is assigned to primary education, reflecting the stated priority of the Ministry. The University receives almost as much as secondary education.

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1/ USAID, op. cit.