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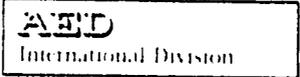
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NUTRITION EDUCATION IN HAITI

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Logical Framework

LIST OF ABBREVIATIONS

BON	Bureau of Nutrition
CFH	Center for Family Hygiene
CHS	Community Health Service
DFH	Division of Family Hygiene
DSPP	Département de la Santé Publique et de la Population (Ministry of Public Health and Population)
GOH	Government of Haiti
HACHO	Haitian American Community Health Organization
IDRC	International Development Research Council
INCAP	Institute of Nutrition for Central America and Panama
IPN	Institut Pédagogique National
MCH/FP	Maternal and Child Health and Family Planning
MOA	Ministry of Agriculture
MOE	Ministry of Education
MOH	Ministry of Health
MPH	Master's Degree in Public Health
ONAAC	Office National d'Alphabétisation et d'Action Communautaire (National Office for Literacy Training and Community Action)
PAHO/WHO	Pan American Health Organization/World Health Organization
PCM	Protein-Calorie Malnutrition
PVO	Private and Voluntary Organizations
RHDS	Rural Health Delivery System

ABSTRACT

Haiti has the lowest health standards of the entire Caribbean and Latin America area. The average life expectancy at birth is 52.2 years; the infant mortality rate in the under-five age group is 45/000, or sixty percent of all reported deaths. Such a high mortality rate is a result of a number of factors. Seventy percent of the population of Haiti live in rural areas, without many of the basic necessities: access to medical care, adequate food supply, potable water, electricity, and decent shelter. Basic sanitation facilities are seriously lacking. There is widespread poverty. In 1970, the per capita income was estimated at \$55, \$43 of which was spent on food. However, despite the significant percentage of income spent on food, Haitian diets are seriously deficient in calories, vitamins, and possibly protein--deficiencies which, in turn, lead to malnutrition, the most serious health problem and a major constraint to development. Best estimates are that 75 percent of the Haitian population under five years of age suffer from mild-to-severe malnutrition.

Thus, the Government of Haiti, with the assistance of the United States Agency for International Development, is undertaking a four-year nutrition education project designed to improve and expand nutrition education for the rural poor and thus reduce malnutrition, especially in infants and small children. Specifically, the program will benefit the mothers of these children, who will receive better medical and nutritional advice and prescriptions; pregnant women and lactating mothers and their offspring; and, finally, many of the urban poor, who will receive nutrition information over the radio and through the dissemination of nutrition education materials at health centers, dispensaries, and schools.

The project has three major components: the development of a training methodology for nutrition education for the (Haiti) Bureau of Nutrition (BON) education staff and extension personnel; the development of a methodology for using media, especially radio, in the training and education activities of the BON; and the development, through a field trial in two regions of Haiti, of a methodology for increasing the extent of nutrition education through improved training and the media, i.e., the replication of the project's activities.

Over four years, the project will integrate the services of the staff of the BON and professionals from other agencies both inside and outside the Ministry of Health. They will participate in the in-service and participant training and a number of workshops. These professionals will, in turn, train other health professionals who, in their turn, will train local health agents. Eventually, professionals in other development sectors such as agriculture, education, and community development, will also benefit through improved training, improved pedagogical materials, and support generated by project activities.

PART I: SUMMARY AND RECOMMENDATIONS

A. Face Sheet

B. Recommendations

1. Grantee and Implementing Entities

The grantee will be the Government of Haiti (GOH). The executive agency for the GOH will be the Department of Public Health and Population (DSPP). The principal implementing agency within the DSPP will be the Bureau of Nutrition (BON).

2. Recommendation

It is recommended that a grant be authorized to the Government of Haiti, in an amount not to exceed \$, ,000 to finance costs for a four-year nutrition education project. The grant described herein will be subject to the conditions and covenants specified below.

C. Description of the Project

1. Project Goal and Purpose

The goal of this project is to reduce the magnitude of malnutrition in Haiti. The purpose is to improve nutrition and to expand its coverage of the (mainly rural) population in order to modify food consumption practices in ways that will improve nutritional status.

The project should result in a significant strengthening of the Bureau of Nutrition (BON) and the personnel at the lower echelons of the new Community Health Service of the DSPP, as well as some of the personnel in other sectors whose activities have nutrition impact.

2. Project Description

This project will establish, over a four-year period, the institutional capability to improve and expand nutrition education for the rural poor in Haiti. Within the project scope, three major activity components are included:

- A) The project will develop and implement a training methodology for nutrition education for the rural population for the BON education section staff and for extension personnel of other agencies involved in nutrition education in Haiti (see Section II.B.6-A.).
- B) The project will develop and demonstrate an effective methodology for the utilization of media and mass media within the training and education activities of BON (see Section II.B.6-B.).
- C) The project will, through a field trial in two Haitian regions, develop and demonstrate an effective methodology for increasing the extent of nutrition education in a way that incorporates the improved training methods and improved communications/media capacities developed in the previous phase of the total project (see section II.B.6-C).

I.C.3 Beneficiaries

Various groups of beneficiaries can be identified. Some groups will benefit from actions for which the project prepares the groundwork; others are the immediate participants in project activities; still others will only be tangentially related to the project, its activities and outcomes, but will derive some benefits.

In the final analysis, the primary beneficiaries of the project will be the infants and small children in the rural population of Haiti for whom malnutrition is prevented or treated because of improved and/or expanded nutrition education. They will derive this benefit mostly through their mothers who will receive better and more appropriate advice, prescriptions and demonstrations. These are offered 1) in mothercraft centers, 2) by health and other extension personnel, and 3) in nutrition campaigns through a variety of media and interpersonal channels. Through improved nutrition education for mothers of malnourished children, there will be a diffusion effect benefitting other siblings in the household.

Although not belonging to the primary target group of mothers of malnourished children, pregnant women and lactating mothers and their offspring will also be beneficiaries. They will improve their nutritional practices because of educational outreach activities supported by the project.

An even larger portion of the general population - in particular, the urban poor - will benefit through the expanded availability of nutrition information via open broadcast radio and through the dissemination of nutrition educational materials (pamphlets, posters, etc.) at health centers, dispensaries, and schools and by health agents at the local level.

In the shorter run, the main beneficiaries of the project will be the staff of the BON and a restricted number of professionals from other agencies and organizations both in and outside of the Ministry of Health. They will participate in the in-service and participant training and a number of workshops. They, in their turn, will train a limited number of health professionals who, again in their turn, will train a larger group of local health agents. The professionals in other development sectors (agriculture, education, community development) will also benefit through improved training, improved pedagogical materials, and support generated by project activities.

I.C.4 Replicability

A major component of the Haiti Nutrition Education Project will be the production of replicable methodologies for nutrition education training and for the utilization of media and mass media within education and training programs having nutritional impact. The first project component, field-based in-service training, will develop and implement training for improved nutrition education strategies for the rural population. The second component, media utilization, will develop and demonstrate effective communication strategies and techniques for use in face-to-face education and through broadcast media. In both instances, methods, procedures, and skills are being developed that can be carried on by the trained

personnel after the project terminates. Further, there will be a variety of tangible products such as training manuals, protocols, and diverse media products. The existence of these skills and tangibles will enable the trainers to repeat the education and training activities in the future, in a manner similar to that undertaken during the project's lifetime.

The third component, a field trial in two regions, is designed to allow the project to replicate portions of its own activities and outputs. The field trial uses the previously developed methods and skills, as well as the media products, and incorporates them into a program of action in Year III. Through this process, replicability of the main features of the nutrition education training and media utilization aspects of the project are tested in the field during the course of the project. As this project component is carried out, much can be learned about how the trial activities can be replicated and extended to other regions of Haiti insofar as the progress of regionalization allows.

I.C.5 Project Implementation

The project is designed in three phases over a four year period:

Phase I: Years I and II

During the first two years, the project focus will be the training of BON education section personnel and other health sector professionals in appropriate educational methods for nutrition education: planning for Phase II and evaluation of progress during Phase I.

Phase II: Years II and III

During the third and fourth years (assuming regular progress through Phase I), three main lines of activity will occur:

- 1) Continuation of training and "training of trainer" activities;
- 2) New production and development of educational strategies utilizing improved methods and incorporating media and mass media as technical support for training and for reaching the public directly (via radio);
- 3) The development and implementation of a field demonstration of a coordinated theme campaign in nutrition education in two Haitian regions, within which the newly developed training methodologies and educational media products are used and evaluated;
- 4) Project evaluation.

I.C.6 Relationship to Other Mission Projects

The project will be monitored by _____ with close technical collaboration with _____.

I.C.7 Staff Implications

This project will require ___ person months per year of Linda Morse 's time to monitor. A full-time project officer in the AID Mission Public Health Office is recommended. Either this position could be on a continuing basis or a new position could be established.

D. Financial Summary

<u>Summary Financial Plan</u>	
(US \$000)	
Construction/Renovation	10,000
Equipment & Supplies	108,200
Vehicles	42,000
Vehicle Maintenance	22,000
Technical Assistance	768,800
Training	29,300
Workshops	36,600
Evaluation	8,000
Contingency	37,020
TOTAL	<u>\$1,067,920</u>

Expenditures will take place according to the following schedule (US \$000):

FY 80	318,750
FY 81	279,290
FY 82	244,614
FY 83	225,266
TOTAL	<u>\$1,067,920</u>

E. Issues

1. Integration of Bureau of Nutrition and Division of Family Hygiene

In the AID Rural Health Delivery System (RHDS) Project Paper, it is noted that the DSPP hopes to integrate the services provided by the Division of Family Hygiene. The RHDS Project Paper calls for the integration to occur within two years after the project agreement is signed. However, the RHDS paper also notes that DSPP's views of how to proceed with integration and what the finished product should look like is not yet clear.

For this project, the planned integration could result in some problems and implementation delays occasioned by the dislocation of personnel, the time necessary to agree on merging operating procedures and guidelines, and the normal lag time required before people can operate efficiently in the merged system. For this project, the focus should be to insure that effective training and methodology development can take place within the context of the integration process. It is important to insure that project activities are not unduly delayed under these circumstances.

2. Regionalization Program

Another issue to be considered is the effect of the reorganization of the health services structure. Currently, AID's RHDS Project is helping the DSPP to shift from a largely clinical, urban-oriented program that provides mainly curative services to Port-au-Prince and a few other urban centers to a program emphasizing the delivery of low-cost preventive and curative health services in the rural areas. This undertaking includes the regionalization of the health services from the central level down to six districts, 17 regions having a total of 275 dispensaries serving 1500 health areas. At each of the 275 dispensaries, there will be two trained auxiliary nurses (a total of 550). These auxiliary nurses will supervise and supply five or six health agents (agents de santé) who will, in turn, provide preventive education and health care for 8,000-10,000 rural inhabitants in each dispensary area (1,500-2,000/agent). When this structure is fully in place, all services will be delivered through the system. For example, the Bureau of Nutrition's outreach programs will be carried out through the personnel in this integrated Community Health Service (CHS).

The Community Health Service is planned to be put in place gradually over the next five-year period, beginning in 1979. For this project, there must be some attention paid to the various dislocations and delays that may be caused by the need to integrate services into the CHS system. The issue of concern is how the pace and extent of regionalization affect the course of the project, particularly when some districts are reorganized and others are not. It will be important to insure the smooth functioning of the nutrition education intervention activities as the change from the outreach delivery system to another is made.

F. Conditions Precedent and Covenants

The project Agreement will contain the following conditions and covenants:

1. Conditions Precedent

A) Conditions Precedent to Initial Disbursement.

Except as AID may otherwise agree in writing, prior to the first disbursement or issuance of documents pursuant to which disbursement will be made, the grantee will furnish to AID in form and substance satisfactory to AID:

- 1) An opinion of counsel acceptable to AID that the project agreement has been duly executed and ratified on behalf of the Republic of Haiti, and that it constitutes a valid and legally binding obligation of the Republic of Haiti in accordance with all its terms;
- 2) The name(s) of the person(s) designated as project manager and other representative(s) authorized to act for the grantee under the project agreement as well as the signature(s) of such person(s) duly certified as to their authority.

b) Conditions Precedent to Disbursement for Technical Services.

Except as AID may otherwise agree in writing, prior to disbursement or issuance of documents pursuant to which disbursement will be made for procurement of technical services, the grantee will furnish to AID in form and substance satisfactory to AID:

- 1) The name(s) of the DSPP counterpart(s) assigned to work with the technical advisor(s) for the duration of the grant/contract;
- 2)

c) Conditions Precedent to Disbursement for Commodities

- 1)
- 2)

d) Conditions Precedent to Disbursement for Training:

- 1) In-country training:
- 2) Off-shore training (Participant Training)

2. Special Covenants:

- a) Utilization of Equipment and Materials. The grantee agrees to utilize all equipment and materials financed under the project only for purposes of the project and for similar purposes after the life of the project.
- b) Post-Project Support. The grantee agrees to provide all necessary resources to maintain delivery of nutrition education services at or above the levels attained under this project after the project has terminated.

Part II: Project Background and Detailed Description

II.A. Background

1. The Problem

The Haitian population has the lowest health standards of the entire Caribbean and Latin American area. The best available data^{1/} indicate that the average life expectancy at birth is 52.2 years; the infant mortality rate is 149/000; the mortality rate in the 1-4 age group is 45/000.

Haitian health is directly related to the Haitian economy. Haiti is an extremely poor country, with estimates of per capita gross national product ranging from \$50 to \$85. In 1970, a year when per capita income was estimated at \$55, per capita food expenditure was \$43. The arable land, cultivated intensively in small plots, is very densely populated with an average of 410 persons per square kilometer^{2/}. About 5,300,000 people are estimated to live in Haiti with about 70 percent inhabiting the rural areas. This rural population is almost entirely without the amenities of modern living: access to basic preventive and curative medical care, an adequate food supply for daily needs, potable water, electricity, and temperature-controlled shelter. Sewage and basic sanitation facilities such as latrines are almost completely absent in the countryside. Little has changed about the way the rural poor in Haiti have lived for centuries; farmers still prepare their soil with a hoe and fork. Thus, any consideration of solutions to basic health problems must be viewed in the context of widespread poverty, an inadequate food and water supply; the absence, in the main, of basic health service and the absence of basic sanitation.

Specific Problem

The major health problems in Haiti are protein and calorie malnutrition, gastro-intestinal disease, and tetanus. Malnutrition plays perhaps the major role because of its synergistic or mutually reinforcing relationship with communicable diseases. For example, in the one-to-four-year-old age group, much death is attributed to diarrhea and respiratory infections. However, many experts believe that it is highly probable that the underlying cause of death is malnutrition. Had these children been adequately nourished, there would have been a much higher probability that they would not have died from diarrhea or respiratory infection. It is this synergistic relationship between nutritional deficiency and communicable disease that accounts for the high morbidity rates in the under-five population segment (45/000).

^{1/} USAID Mission estimates

^{2/} Haitian Institute of Statistics

Malnutrition

Best estimates are that 75 percent (of an estimated 850,000) of the Haitian population under five years of age suffer from mild to severe malnutrition. Based on the Gomez classification (of I-mild, II-moderate, and III-severe malnutrition), 10 percent may be considered severely malnourished - 3rd degree, with clinical signs of kwashiorkor marasmus; 15-25 percent may be considered moderately malnourished - 2nd degree. The remainder, or approximately 35 to 40 percent of children under the age of five, may be classified as 1st degree - underweight or malnourished in terms of weight for age or weight for height. Approximately 60 percent of all the reported deaths are in the under-five age group. Malnutrition is the primary or secondary cause of most of these infant deaths. For this highly vulnerable population, the more malnourished the children, the more prone they are to disease; and if diseased, the more prone the children are to become malnourished. Thus, an important problem area in the improvement of the health of the Haitian population is how to reduce malnutrition and disease in the under-five population.

Malnutrition and Food Supply

Best estimates of overall food availability in Haiti (based on food consumption data) suggest a daily per capita calorie deficit in the range of 400-300 cal. Hospital cases of adult kwashiorkor and isolated clinical cases identified in nutrition centers suggest the possibility of a protein deficiency problem in the adult population. Vitamin A deficiency, goiter (iodine deficiency), ariboflavinosis (riboflavin-vitamin B¹², and/or folic acid) are also assumed to be serious problems in specific regions and population sub-groups. While no current, regional data or specific nutritional status-by-age data currently exist, three population sub-groups (in addition to children under five) may be identified as high-risk groups:

- a) pregnant women
- b) lactating women
- c) rural poor newly arrived in the urban area.

Malnutrition constitutes the most serious health problem in Haiti and is a major constraint to development. The dimensions of the problem both on the macro level (food production and marketing, etc.) and the micro level (food consumption, family food distribution, food beliefs and practices, etc.) need to be addressed in an integrated fashion in order to reduce malnutrition in the vulnerable population segments.

IIA.2 Current Nutrition Education Activities in Haiti

A. Bureau of Nutrition

The major effort in nutrition to date by the GOH is through the Bureau of Nutrition within the Ministry of Health. BON efforts have been directed toward the amelioration of severe protein calorie malnutrition in the under-five population through the education of mothers and the directed feeding of their malnourished children at a mothercraft center. In the centers, operated by paraprofessional monitrices, parents of malnourished children learn basic

dietary, health, and hygiene practices by participating in the recuperation of their acutely ill children. The Bureau of Nutrition directly supports 30 of these centers (120 direct beneficiaries per center per year) and supervises an additional 60 to 70 centers run by private voluntary organizations (PVOs).

In addition, the Bureau of Nutrition is responsible for "retraining" all health personnel in each health region to improve the quality of nutrition-related health services provided in the existing health system. This retraining is being carried out on a region-by-region basis, to be concluded by 1980. As aids to improve the nutrition content in the training programs for various health workers, a number of manuals and publications have been prepared by BON staff.

Under the proposed rural Community Health Service system, the health agent and the auxiliary nurses of the dispensary and/or health center are to be responsible for delivering nutrition education to the public. A manual for the training of nurse auxiliaries has been prepared by the Bureau staff: "Cours D Nutrition Des Ecoles Nationales D'Auxiliaires-Infirmières Polyvalentes." Another reference manual, "Guide D'Education Nutritionnelle," currently undergoing revision, is for the use of health agents in their teaching of rural mothers.

A.1 Norms for Nutritional Adequacy

The supervisory personnel of the BON education section have very recently developed a set of quality standard norms for nutrition education and delivery of health care. The norms encompass:

- 1) Diagnosis of Nutritional Status: Protein-Calorie Malnutrition (PCM), anthropometric indicators (wt/age, wt/height, standard, Gomez classification).
- 2) Clinical Indicators: marasmus, kwashiorkor, Vitamins A, B².
- 3) Nutrition Status During Pregnancy: high-risk classification, diet adequacy; weight throughout pregnancy (under 9 kg.); birth weight of baby (2.5 kg); mother has other 0-to-5-year-old malnourished children; and hemoglobin 11 gms%.
- 4) Infant and Child Development: For infants' and children's (0-5) development a surveillance system using weight/age growth charts has been established. Mothers are to be encouraged to bring their children to health clinics every trimester. Growth records, food consumption adequacy (0-5 years), distribution of vitamin A capsules and food supplement, PCM control, and nutrition education counseling are provided.

A.2 Norms for Nutrition Education

The defined norms for nutrition education have not been specifically identified other than to state that nutrition education is to be a component of sanitary education directed towards individuals, groups, schools and the community.

Finally, the Bureau of Nutrition's agriculture section (2 agronomists and 26 extension agents) supports extension activities out of the nutrition centers including use of improved seed varieties, land preparation, pest control, introduction of new sources of food and income, i.e., rabbit production, book-keeping, etc.

Face-to-face individualized instruction is used at the regional, district, and health delivery centers in consultations and home visits. The health agents of the dispensary area and/or center are responsible for nutrition education to the community. Nurse auxiliaries and aides are to provide education sessions (one fifteen-minute session each day for a week) to mothers and fathers.

The content to be included is as follows:

- a) three food groups
- b) breast feeding
- c) infant nutrition
- d) nutrition during pregnancy
- e) nutrition during lactation
- f) family nutrition
- g) malnutrition
- h) prevention of malnutrition
- i) the road-to-health chart
- j) practice in the use of growth chart
- k) vaccination
- l) household hygiene
- m) water hygiene
- n) latrine construction
- o) food conservation
- p) infant care
- q) l'AK 100 supplement
- r) preparation of AK 100
- s) protein-rich recipes
- t) planting a family garden
- u) importance of child spacing

A.3 Organization and Staffing of Bureau of Nutrition

Dr. William Fougère is director of the Bureau of Nutrition. Dr. Serge Toureau is assistant director. Both are physicians trained in Haiti, with further degrees in Public Health Nutrition abroad. The Bureau's internal structure includes sections for administration, evaluation-research, supervision (of mothercraft centers), and education. Chief of Evaluation and Research is Dr. Michael Amedée; Chief of Supervision is Dr. Feyla LaMot; Chief of Education is Dr. Michele Pierre Louis. All three section chiefs are Haitian-trained physicians. Dr. LaMot has recently returned from INCAP where she obtained an MPH. Drs. Amadee and Pierre Louis have not yet obtained advanced training in public health nutrition. Within the education section, the other staff members

are: Ms. Marie José Castéera, a nutritionist who received an MPH from INCAP in 1978; Ms. Marie Christine Bertrand, trained in nutrition and dietetics at Pontifica Javeriana University in Bogotá; Ms. Keily Domercant; a nutritionist trained at INCAP; Mme. Yvette Papillon, a lay nurse who has been with the Bureau for eight years; and two agronomes, or agricultural extensionists. Usually, one or two medical students are at the Bureau doing a residency with the education and/or evaluation sections. Considerable external expertise in nutrition education and planning has been provided by PAHO through their resident nutrition advisor, Dr. Solem Donas. Until recently, Ms. Indira deBeausset, a public health nutritionist trained at INCAP, worked with the Bureau primarily in education. Another external PAHO advisor, Ms. Agathe Pellerin, who worked with the education group in the development of the Norms and Guide, has just completed her Haiti assignment and left the country. In addition to the activities of the BON, a number of other agencies and groups have undertaken activities that have a nutritional impact.

II.A B. Division of Family Hygiene

Organization and Staffing in the Education Area

Dr. Ary Bordes is director of the Division of Family Hygiene (DFH) (and also of the private Center for Family Hygiene). Dr. A. Verly is assistant director of DFH. Dr. Eustache is chief of the education section, which appears to have a technical staff of four plus, perhaps, some clerical-office support. The four are Mme. Monique Souvenir, who is in charge of writing and producing the radio programs (she also acts the lead role of Fanny in the Radio Docteur programs). She is assisted by a Mr. Jasmine and another full-time staff person. A second Mr. Jasmine (a brother) is the fourth team member, and his work is mainly in illustration, graphics, and technical layout and production of posters, print materials, forms, booklets, and the like. Presently, the DFH has a proposal submitted to UNESCO to obtain support for the long-term professional training of the personnel in this group.

The activities of the Division of Family Hygiene are in the area of maternal and child health and family planning (MCH/FP). The Division was organized as a result of population projects funded originally by AID through the Center for Family Hygiene (CFH). The Division is engaged, to a limited degree, in nutrition education. Within the prenatal care protocol used in the MCH/FP centers -- there are now 26 in operation -- some nutrition education is conveyed through fifteen-minute face-to-face instruction sessions offered daily in the health center and dispensary waiting areas. If the mother returns to the well-baby clinic, further information in nutrition and food habits is imparted. Only mothers who utilize the 26 existing MCH/FP centers (located mainly in urban areas) can benefit from this aspect of DHF activities, however.

Also, the DHF collaborates with the Center for Family Hygiene in the production and distribution of educational materials and radio programs. Educational materials consist of posters, small photobooklets, calendars, and booklets for in-school use containing advice on prenatal and postnatal care (including nutrition) and feeding practices for infants and small children, and family planning.

The radio programs of the Center and the Division are: Radio Docteur (since 1966), Radio Familiale (since 1973) and Classe d'Hygiène (for in-school use). These programs contain several nutrition themes each year. However, there are no solid evaluative data on the reach and effects of these programs.

The Center for Family Hygiene has also produced three 10-to-12 minute color movies for sensitizing local populations to the use of services of the Croix-des-Bouquets health center and its related health agents and community workers. For the same purpose the Center also sponsors a theatrical group that conveys family planning and health messages using songs, dances and traditional stories (in Creole). The films and the theatrical group are mainly used in the service area of the Croix-des-Bouquets health center.

The Center also organizes two-day workshops for primary school teachers all over the country. The workshops deal with family hygiene and family planning matters.

The Integrated Project for Public Health and Population at Petit-Goâve is a program of the Division of Family Hygiene in which the International Development Research Council for Canada (IDRC) and Drs. G. and W. Berggren of the Harvard School of Public Health have participated. It is designed to provide health services to a rural population in Southern Haiti. In this project, one full-time "community agent" per 2,000 people provides health information and education, among other tasks. They are assisted by "community collaborators." As part of their primary care services, the identification and treatment of the severely malnourished child is the primary nutritional activity.

II.A.2 C. Private Voluntary Agencies

Isolated nutrition projects and programs, unrelated to the previously mentioned activities, are being undertaken in Haiti. The private voluntary agencies, such as CARE, Catholic Relief Service and Church World Service (Service Chrétien d'Haiti) are the sole distributors of PL 480 Title II foodstuffs in schools, MCH centers and Food-for-Work projects. Projections for 1978 indicate that approximately 350,000 beneficiaries or 7 percent of the total population will receive Title II foodstuffs, with more than 50 percent being distributed in school-feeding programs. CARE is just completing a three-year project which provided nutrition education, coupled with school feeding, to 240 primary school teachers in 82 schools.

Church World Service (CWS/SCH) supervises approximately five under-five clinics in Bellevue and on the island of la Gonâve. The Haitian American Community Health Organization (HACHO) operates between 10-to-15 mothercraft centers in the northwest section of Haiti. HACHO is currently operating 18 fixed clinics, four mobile clinics, and 20 nutrition centers in the northwest. The Albert Schweitzer Hospital at DesChapelles has had nutrition clinics until recently. It still operates under-five clinics which serve a community of approximately 90,000 people residing in the area; some nutrition education is included. Also, there are a large number of successful smaller programs administered by missionaries.

PAHO/WHO has been involved in the incorporation of nutrition into the curriculum of auxiliary nurses and other health personnel; last year, PAHO completed a nine-month advanced training course for 42 auxiliary nutritionists whose function will be to supervise nutrition activities at the district level. Presently only 30 of them remain, and their status is in doubt.

II.A.2 D. UNESCO

Apart from those agencies that are immediately involved in nutrition and nutrition education, there are a number of other development-related activities which have a potential for including nutrition and nutrition education elements. Some of these activities already pay some attention to nutrition. The activities in this category belong to the Program for Education in Rural Development, coordinated by UNESCO. The program, which started in September 1978, is a kind of umbrella for a number of actions financed by UNICEF, the World Bank, and UNDP. UNICEF supports the BUNAFPAN, an organization under the Ministry of Planning and charged with developing Haiti's food policy. UNDP/UNESCO funds in-school and out-of-school radio education and community development (ONAAC). The World Bank finances the First and Second Education Projects of the Ministry of Education.

The elements of the UNESCO program are:

- the reform of the primary school curriculum and the (re-) training of primary school teachers;
- the organization of educational planning and educational statistics;
- the development of school texts and other printed support materials;
- the organization of the ONAAC and the training of its personnel -- mainly for literacy training; and
- both in-school and out-of-school radio education in collaboration with Radio Educative, the Ministry of Education, and ONAAC (ca.200 listening groups in the South).

The main objective of the program is to adapt formal and nonformal education to the realities and needs of Haiti, which is dependent on the existence of a viable agricultural and rural sector for its survival. In many of the actions foreseen by the program, there is room for nutrition interventions. For example, literacy training materials may contain instructions for changing food consumption patterns. There is also a potential in the radio programs broadcast for the ONAAC listening groups.

II.A.2 E. Coordination of Nutrition Education Services

At the moment, several government entities and a variety of PVOs have programs and activities centering on nutrition education or having nutritional impact. There does not seem to be any coordination either on a geographical basis or in terms of activities (such as standardization of nutritional recommendations for the public). No intra-ministerial office or agency appears to have been vested with authority for coordinating the food and nutrition activities within the health sector. No inter-ministerial committee or agency appears to have the assignment of pulling together

the various agencies, bureaus and PVOs to define a nutrition education policy or to draw up a coordinated plan of action. Presently, many entities do what they can, in their own way, on their own schedules, with little communication or consultation with each other. One common denominator seems to be external donor support, much of it coming from the United States Government and, in particular, USAID.

II.A.3 Assessment of Present Nutrition Education in Haiti

A) Criteria

The criteria used for assessing the present nutrition education capability of BON are threefold:

1) Nutrition Content:

Is the content of the program sound? Are the educational services based on the most current knowledge and facts? Are the behavioral recommendations and rationales derived from an understanding of the nutritional needs of the population and a knowledge of the nutrient composition of the available food supply?

2) Method and Approach:

What is the relevance and utility of the educational services for the population? Does the material presented make practical sense to the population? Can it be readily and usefully applied to daily life by the ordinary person? Is it packaged in forms and ways that are easily comprehensible and useful to the target group? Are the people able to make use of the information and understand how to go about improving food consumption patterns? Is the advice practical and feasible, given the living conditions of the audience to whom it is directed? Are the nutrition educators able to deal expertly and adeptly with the nutrition information content and communicate it in ways that are easily comprehended and rapidly adopted in practice?

3) Scope of Services:

To what extent is the target group (those having the most need for education and services) reached by program activities? What proportion of the vulnerable population is being reached? With what intensity?

The initiative for improvement and expansion of nutrition education in Haiti is, most likely, to come from the Bureau of Nutrition of DSPP. For that reason, the analysis and recommendations that follow focus exclusively on the BON.

In order to assess present nutrition education in Haiti, according to these general criteria, it is necessary to evaluate current activities both in terms of the human and material resources as they exist in the current situation.

1) Nutrition Content Expertise

In general, the training and content expertise of the BON staff is of a fairly high level, judging by international standards. The manuals and norms that have been prepared recently reflect a sound grounding in basic human nutritional requirements and accepted techniques used to assess human nutritional status, while showing an external knowledge of the relationship between the population's nutritional needs and the nutrient qualities of the available food supply. Malnutrition is assessed according to international criteria, and basic recommendations for its treatment and prevention are those accepted in worldwide practice. In terms of professional expertise in the principles of human nutrition and standards of nutritional adequacy, the BON operates at a sophisticated level. Much effort, with good result, has gone into the preparation of standards and norms for nutrition education, a basic preparatory stage to planning effective public health nutrition education programs.

One major weakness in the content area is that there is insufficient data available on the food consumption patterns and food practices of varying target groups (e.g., daily feeding practices of children 0 to 5). Such data is basic to planning nutrition education strategies. Effective nutrition education program design should be derived from a fairly precise understanding of the current knowledge, beliefs, and practices of the target group. These data are necessary in order to identify the appropriate points of intervention for the individual and the household, the potential barriers to change, and the incentives promoting change and adoption of recommended dietary and food practices. Data on the status quo are required to identify the information and skills training needs of the population relative to the recommended behavior changes.

New data will be available soon from the national sample survey conducted by BON with the U.S. Center for Disease Control, Public Health Service. This survey contains a modified 24-hour dietary recall section that will provide data on the feeding practices of infants and children in various regions of the country. These data will, in part, meet the need for more precise data on family food patterns and practices in the rural areas. A particular need is to learn more about the characteristic intra-family food consumption patterns, food selection, and food preparation patterns.

In the area of nutrition content expertise, the BON demonstrates a professional capability according to international standards in general nutrition. However, the present norms and materials of the Bureau reflect more of an emphasis on standards for nutritional adequacy than on standards and methods for the application of nutritional principles to public health education to improve the nutritional status. In order for this capable and highly trained staff to perform its nutrition education functions at a similarly high level of expertise, further training will be required in the gathering and analysis of food consumption and food practices data and the methods and procedures for transforming these data into guidelines and priorities for effective public health-oriented nutrition education. In the detailed project description (section II.B.6.A below), recommendations will be made for training that will enable the BON staff to gain expertise in the application of nutrition to public health needs.

2) Methods and Approach

As noted in the preceding section, the BON norms and materials reflect more of a orientation toward definition and explication of standards for nutritional adequacy than toward an application of nutritional expertise to the general problem of improving food consumption patterns and nutritional status. The BON wishes to change its focus in a way that will enable them to provide useful, practical, and effective nutrition education for those who need it most.

Presently, the content and focus of the norms, manuals, and educational materials are theoretical and unrelated to rural family living conditions. Program activities do not indicate a knowledge or utilization of education and communication principles for bringing about changes in the public's knowledge, beliefs, and practices regarding food consumption. No particular emphasis is given to developing strategies and tactics for the rural poor in a fashion that distinguishes itself from the strategies and tactics for an urban population.

In order to be effective, nutrition education methods and approaches should arise from the typical food patterns, habits, beliefs, and practices as well as the needs of the rural families to whom it is addressed. Research and evaluation of applied nutrition education programs have shown that meaningful nutrition education activities are those that involve the learners, that invite their participation in a hands-on skills training approach. As in learning situations of all kinds, the learner will benefit from a step-by-step approach which provides feedback, knowledge of the correct response, and the opportunity to try out new behaviors with guidance and supervision. If the learning is to take place through media, the educational communications must attempt to build in these basic elements of learning theory.

At the human level, it is important to design programs that enhance the individual's capacity for personal decision-making. The learning activities should recognize that the aim is to stimulate self-directed behavior change. This requires the gradual development of an awareness of the problem, a personal assessment of the needs of the person -- what does he or she need to do to improve nutrition for himself/herself or others? Within the available resources, what can the person do that will make a difference? This personalized problem-solving approach, with the individual guided in learning the information required for sound personal decision-making, should be the focus of education for behavior change. The nutrition education message should not be a recitation of a list of facts about a nutritional topic, no matter how important all those facts are. Rather, the message should be organized within a problem-solving framework that addresses a genuine, high-priority problem facing people who are not presently adequately nourished. Problem solving nutrition education can contribute to improving food-related practices by identifying the present positive and nutritionally beneficial food habits, explaining their worth, and encouraging people to build upon this basis. However, this strategy for developing a nutrition education program implies a) a data base on existing food practices and identification of "room-for-change" - intervention points for particular target populations.

u) a set of priorities for action. Which problems, for which groups, should be addressed - in which order. Nutrition education needs to be fine-tuned, focussed on narrow topics, in depth and over time to stimulate change.

c) an imaginative educational plan of action that organizes the information, motivation, and skills needed to promote change into attractive, interesting, and practical experiences at the face-to-face level or is packaged as media. In order to build a capability for the BON to design and implement effective nutrition educational strategies, additional training in public health nutrition approaches and methods will be required. Also, BON staff will need to acquire skills in the principles and techniques for communication and educational approaches to changing behavior. Training in these areas is an essential component of any project aiming to improve the quality of nutrition education in Haiti.

3) Scope

Despite the seeming success of the mothercraft approach, the impact of the centers on the nutritional problems in Haiti has been and is likely to be extremely limited relative to the magnitude and diversity of the problems. Of the estimated 200,000 under-five age population who suffer from second and third-degree malnutrition (approximately 35 percent of the under-five population), a maximum of only 7400 or 3.7 percent of these children can be accommodated in 70 centers per year (assuming a recovery period of four months per child and a total capacity of 35 children per center at any one time), and seventy centers would constitute more than a 100 percent increase in the number of centers the BON is currently operating.

If we assume that the mother of every child participates in the center activities, then less than one percent of the women from 15-to-39 years of age can benefit from this approach. And further, if we assume that there are two siblings under five years old per child, the spread effect of the education received by the mother could benefit only an additional 2.5 percent of the under-five population.

Because it would reach only a very small proportion of the crucial target group, improvement of nutrition education in mothercraft centers would be insufficient.

To increase the possibility that larger numbers of the rural population are reached by quality education, the scope of current nutrition education should be expanded. This means that new target audiences should be identified, and also that new communication channels should be used. New target audiences are to be found among mothers, pregnant women, and women in the reproductive age group who are not covered by existing mothercraft centers. These groups could especially be reached by the community workers of the new rural health service. Another potential target audience is the fathers whose primary contact could be the agricultural extension agents. The training of these two groups of community workers would thus increase the reach of nutrition education.

Relying on interpersonal or face-to-face contacts between target groups and the limited number of community workers would be insufficient. The effectiveness of face-to-face instruction or information transmission can be enhanced by the use of mass media and audiovisual teaching aids. Moreover, mass media (especially radio in the case of Haiti) can also be used for teaching audience groups that are presently not reached by one of the community outreach workers.

In many developing countries, the mass media and "little media" (posters, slide shows, pamphlets, etc.) have been used with some success to bring attention to a health problem, to convey knowledge about appropriate solutions and actions and, in limited ways, have stimulated population-wide changes in health-related behaviors.

A great need exists in Haiti to expand the population coverage of nutrition education to the rural population. An estimated 200,000 to 250,000 children are presently suffering from moderate to severe malnutrition. Education could convey to parents and caretakers important actions they could take, within their available resources, to treat malnutrition, to prevent its occurrence, and to deal with the deadly effects of the combined malnutrition-dehydration infection syndrome. Media offers a means by which nutrition education can be widely extended with little additional investment in professional expertise.

The mass media may be an important adjunct to the new Community Health Service. Media can be an inexpensive supplementary educational tool which could be utilized without a great deal of additional manpower. The multiplier effect of training a few communication education specialists and supporting a creative team and direct media production costs might be a very cost-effective method for delivering simple but important health information to the general public.

However, at this time, there is very little in the way of communication capability within the health sector. Most of what exists is within the Division of Family Hygiene and the Center for Family Hygiene. Their efforts are necessarily limited to the MCH/FP objectives of that group.

How new audiences are to be identified, how new communication channels are to be organized, how media and teaching aids are to be used, and how all these elements are to be combined in an effective, integrated strategy or campaign should be one of the objectives of this project.

Present capabilities of the BON to perform these tasks are limited, and should therefore be strengthened and expanded. It is, however, unreasonable to assume that BON will be the only agency involved in enlarging the scope of nutrition education. Other agencies on the national, regional, and local levels should also participate, either in the preparation and production of appropriate materials and radio programs or in the conduct of nutrition education activities.

B) Material Resources

BON presently exists in quite cramped quarters. Program expansion and the addition of personnel and resident advisors would probably demand some additional investment in office space, office equipment and supplies beyond that presently available. No media production equipment or facilities presently exist, nor do there seem to be any means of offset reproduction other than ditto and xerox. Some support should be directed to this area.

C) Conclusion

The nutritional impact of the individual and unrelated efforts of several agencies and groups involved in nutrition education is likely to be marginal, under present conditions. Interventions which are facility-based (mothercraft centers, food distribution outlets, maternal and child health/family planning clinics, dispensaries, etc.) are now limited by the small number of existing facilities and limited training of their staff in nutrition and nutrition education. As the Community Health Service is organized and expanded, the training of the outreach workers at the dispensary level (auxiliary nurses) and the community (agents de santé) will provide an opportunity to introduce improved and more relevant nutrition education to a larger number of the population.

Before this occurs, however, it is necessary to reformulate a nutrition education strategy that is relevant and useful for a rural population. Presently, the conceptualization of nutrition education is weak, and the staff lack training in the basic communication and behavioral science principles that guide effective educational planning. Although there is a high interest in the development of educational media and print materials, the staff lack most of the basic skills to do this effectively. At this point, the norms have been established for nutritional adequacy and a first cut has been made at drafting nutrition education guidelines. However, with the present level of skills and training the staff is woefully unprepared to deal with the basic tasks of establishing priorities for nutrition education based on the current levels of knowledge, beliefs, and practices of the population. They are not yet in a position where they could devise an educational plan for, for example, the monitrices, in the mothercraft centers - a task that surely needs to be done. They do not yet seem prepared to select from among the topics listed on page 18 or to work out the objectives, and then translate those objectives into an attractive, interesting, effective instructional unit or lesson plan. No work has yet been done to set priorities among themes, or to systematically develop messages and pretest them for comprehension and utility with a representative group of the target audience. In other words, the problem is to provide the education section with basic training in the development of educational strategies and the means for carrying them out in a rural setting with the target populations chosen for interventions. All the many skills involved in this process need to be the target of in-service training and participant training abroad.

In the area of media utilization and support for training and public education activities, much needs to be done. A whole range of management and planning skills are missing, for example, setting up an appropriate division of labor in the design and production of media. Skills training needs must be defined and appropriate in-service training must be provided. Ideally, this training would be organized around many of the current needs specified by the Bureau staff. Much work can be done to help existing staff expand their coverage through an increased utilization of media and mass media.

A final consideration is the improvement of inter-organizational linkages among the many agencies and groups involved in food, nutrition, and malnutrition work. Some activities within the current project need to be directed toward building this cooperation and devising mechanisms through which an integrated approach to nutrition improvement at the community level can be designed and carried out.

In sum, current nutrition education efforts and current levels of skills and training in nutrition education are seen to be inadequate. The scope of present nutrition education activities is seen to have inadequate population coverage and thus inadequate impact to deal with the massive malnutrition problem in Haiti. Poor nutrition is a barrier to further development; thus, improving and extending the reach and impact of nutrition education in Haiti should be a high priority area in any comprehensive plan for national development.

In the section that follows, the framework for such a project is presented. Its aim is to improve and expand nutrition education programs to reach widely into the rural poor population and, over time, to improve the nutritional status of all Haitians.

Project Rationale

This project is based on the rationale that improved and expanded nutrition education will have a significant positive effect on the nutritional status of the majority of the Haitian population.

In Haiti, the major factors underlying nutritional deficiencies are the poverty of the population and the lack of food. Nutritional authorities, however, are of the opinion that even within these constraints there is room for significant improvement. Traditional food consumption patterns can be changed. For example, the cultivation of foodstuffs with a higher nutritional value can be introduced and encouraged, and the more frequent feeding of small children can be encouraged.

It is proven that education can make a contribution to bringing about significant changes in food consumption habits, mostly through supporting the practical interventions of health agents and other community and extension workers, if specifically planned to do so.

Current nutrition education in Haiti is not entirely equipped for performing this task. The content of much nutrition education is not immediately relevant for the needs and conditions of its intended beneficiaries. The ways in which nutrition education is dispensed and the methods used do not sufficiently take into account the characteristics of the learners or the requirements for effective learning situations. Finally, the scope of present nutrition education is limited relative to the magnitude of the problems of malnutrition and inappropriate food consumption patterns.

This project will improve the content and methodology of nutrition education and expand its coverage. To this effect, BON personnel will be trained, and in turn will train others in developing appropriate nutrition education content and learning approaches. In addition, capabilities will be developed for designing and producing learning support materials and utilizing mass media for extending the coverage and impact of nutrition education. Finally, a methodology will be developed and tested for the effective integration of nutrition education into the activities of community and outreach workers.

II.B. The Detailed Description of Haitian Nutrition Education Project

II.B.1 Project Goal and Purposes

The goal of this project is to reduce the magnitude of malnutrition in Haiti through the modification of food consumption practices and of the majority of the population within the constraints of their available resources.

The project purposes are to:

- a) strengthen and expand the technical and managerial capability of the Bureau of Nutrition, DSPP, and other nutrition education implementation personnel to design and conduct nutrition education training and nutrition education interventions;
- b) develop and demonstrate a methodology for the effective utilization of print/audiovisual aids and mass media in the conduct of nutrition education training and nutrition education interventions;
- c) develop and demonstrate a methodology to expand the population coverage of nutrition education through a collaborative approach integrating nutrition education with other community-based extension efforts.

II.B.2 End of Project Status

At the end of the project, an education section of the Bureau of Nutrition (at some point integrated with the Division of Family Hygiene) will provide improved nutrition education training and periodic retraining to health and other sector professionals and paraprofessionals on a continuing basis. Trained paraprofessionals of the Community Health Service (auxiliary nutritionists, auxiliary nurses, and community health agents) will include,

as part of their preventive health care, information and skills training on the appropriate food selection, preparation and consumption patterns to maintain and promote health and well-being for all members of the rural poor population. The content of nutrition education will reflect and meet the needs of the population and will be geared toward providing relevant and practical nutritional guidance within the available means of the population.

Within the project, relevant data will be collected on the existing food patterns and practices of the general population and vulnerable population segments; important positive virtues of the traditional diets will be encouraged and enhanced, and incorporated into nutrition education content.

Within the project, audiovisual materials, protocols, and other informational items will have been produced and distributed to a wide range of health and other sector professionals. A large number of the population in two trial demonstration areas will have received or been exposed to an integrated program of nutrition education within their local communities.

II.B.3 Outputs

The basic outputs of the project are the following:

- 1) The effective in-service and participant training of BON staff (up to 10 persons) in nutrition education methodology. This BON staff will, in turn, have improved the nutrition education components of the training of health agents and mothercraft center monitrices (up to 1500 persons).
- 2) The effective in-service training of BON staff (10 persons) in designing and managing instructional strategies, in pretesting and producing audiovisual aids and media programs, and in their distribution through a variety of channels.
- 3) The effective integration of nutrition education into the activities of MOH, MOE, MOA and PVO field personnel in two selected regions.

II.B.4 Inputs

The inputs required for this project, during the four-year implementation period are in the areas of technical assistance, GOH counterparts equipment and vehicles.

1. Technical assistance

Technical assistance will consist of:

- Three person-years of health training specialists with background in nutrition (Years I-III)
- Three person-years of nutrition educational technology specialists (Years I-III)
- A total of one person-year of short-term technical assistance for training workshops and communication workshops (Years I-III)

2. Counterparts

The GOH will provide counterparts (existing BON personnel or newly hired personnel) for a total of 22 counterpart years:

- one project director (Years I-IV), who is also the chief of the BON education supervision section;
- one program director (Years I to IV) who is also the Bureau's director.
- one training coordinator (Years I-IV)
- one communication manager (Years I-IV)
- one visual aids and technical-lay-out designer or part-time free-lance equivalents (Years II-IV)
- one intra-regional nutrition education coordinator (Years II-IV);

3. Commodities and Facilities

- two vehicles in Year I and one vehicle in Year II
- office supplies, equipment and production/pretesting costs for audio/visual/print/AV material
- office space and communication production facilities.

II.B.5 Critical Assumptions

Assumptions for Achieving Project Goal and Purpose

- That there will be no substantial deterioration in the Haitian economy with regard to inflation, unemployment, or real wage levels.
- That no major natural disasters will take place, affecting the cultivation and availability of foodstuffs, and forcing the GOH to alter its food and nutrition policy priorities.
- That the infrastructure and level of technology in Haiti are adequate to achievement of the goal and purpose.
- That GOH and AID are committed to expand the scope of nutrition-related activities in Haiti and to strengthen the BON.
- That GOH will continue its efforts to foster intersectoral coordination and collaboration at the ministerial and operational levels, particularly with regard to nutrition, health, and agriculture.
- That GOH continues to be amenable to the conduct of the project and its related aspects by U.S. contractors acting in conjunction with local agencies.
- That the project fits with regionalization objectives of the DSPP.

Assumptions for Achieving Project Outputs

- That a sufficient number of Haitian ministries and organizations are interested in cooperating with the MOH and the BON.
- That the regionalization of the DSPP will proceed as scheduled.
- That there is an effective integration of overlapping services within the MOH.
- That the DSPP agrees to the selection of two health regions for the trial demonstration in the second project phase.
- That the two selected health regions are sufficiently reorganized and functioning.

Assumptions for Achieving Project Inputs

- That appropriate outside technical assistance of the type and amount required can be obtained.
- That qualified and competent counterparts of the type and number required are available and are designated by GOH.

II.B.6 Detailed Description of Project Activities

In the Nutrition Education Project three major components can be distinguished:

- field-based training;
- media utilization; and
- field trials in two regions.

II.B.6 A. Field-Based Training

Purpose:

This component has a dual purpose (a) to strengthen the capability of the BON to provide nutrition education to low income families in (rural) Haiti, and (b) to improve the training of trainers of health workers, as far as nutritional matters are concerned. In this component, three groups of activities are foreseen:

- field-based training of BON staff;
- training of trainers of rural health implementing personnel; and
- participant training abroad for BON staff.

In the foregoing sections it was established that improved nutrition education could have a significant impact on the nutritional status of rural Haitians. Nutrition education will provide them with information on nutritional, recommended, and feasibility practices, which they can adopt to

maintain and improve their nutritional status. In addition, training will contribute toward assuring that quality and meaningful nutrition education is provided in malnutrition-rehabilitation or mothercraft centers, through rural health services, and other extension and community development work. The emphasis will be on educational techniques that can be easily learned by paraprofessionals and community workers. The content will be directly relevant to the felt needs of mothers and families in rural areas.

Nutrition education training will motivate and enable the Bureau of Nutrition headquarters staff as well as other nutrition implementation personnel to apply problem-solving techniques in the design and development of nutrition education training workshops, materials, and protocols. Over the course of the project, the nutrition education team will foster intra-sectoral (health) coordination for nutrition education, and collaborate inter-sectorally for an improvement in the nutritional status of the rural population. Relationships, over time, will be built between DSPP divisions, the Ministries of Agriculture, Education, Community Development, and the ONAAC literacy programs, and other organizations who have an interest in community nutrition education.

II.B.6 A.1 Field-Based Training

To assure that meaningful, quality nutrition education for a rural population is conducted at all levels by BON staff, a series of learning activities and workshops will be organized as follows:

a) Public Health Nutrition Rural Practicum

To develop program-planning, nutrition-intervention capabilities among BON section chiefs, a structured practicum focussing on assessing health and nutrition characteristics of rural families will be held. The practicum will focus on integrating MCH nutrition curative and preventive services.

The field practicum will be directed by a practicing public health physician knowledgeable in nutrition, Creole, and rural conditions. It will take place during the first six months of Year One of the project. The four-week technical assistance will be provided for a tutorial learning experience for two BON M.D. section chiefs (i.e. education and evaluation). Extensive supervision and guidance will be given by the director throughout the four weeks, preferably in Petit-Goâve. If lodging is not available in Petit-Goâve, the practicum would be held in Croix-des-Bouquets.

The field tutorial or workshop would be based on two principles: the study of the nutritional problem as it is experienced by the rural population, and the planning of a program to deal with this problem. The participants would select a small sample -- two to three -- of representative rural families, and would become familiar with their health and nutritional problems. Data gathered would be interpreted and a plan prepared for a relevant nutrition education intervention. For evaluation purposes, and for use as an educational tool for future nutrition education workshops, each participant would develop a case study on the family studied, which would include the educational strategy and materials for improving the problem. For evaluation of the learning acquired, each

participant would give a seminar to the health service personnel in the Croix-des-Bouquets training center.

Workshop Product: The outline for a BON Nutrition Instruction Guide in booklet form.

Written case studies on representative low-income rural families indicating feasible health interventions and a step-by-step education plan of action for conducting intervention on a few selected themes and messages for that specific target group.

b) Public Health Nutrition Education Workshop

A public health nutrition education workshop would be held in Year One for BON supervisory personnel. The purpose and aim would be to enable the participants to develop quality problem-solving prototype nutrition education instructional modules. A nutrition education specialist on contract would direct the four week workshop.

Fifteen to twenty nurses and auxiliary supervisors would attend the workshop in Croix-des-Bouquets during four consecutive weeks. Participant selection criteria would include:

- currently occupying a supervisory position in the BON,
- responsibility for training field personnel,
- having participated in the formulation of the BON quality standard norms, and
- residence in Croix-des-Bouquets during the four-week sessions.

The participants would select, from a pre-defined listing, a characteristic health and nutrition related problem experienced by rural poor Haitian families. The nutrition content areas would include such topics as: breastfeeding, weaning foods, feeding the one-year old child, feeding the two-three and four-year-olds, nutrition during pregnancy, and lactation. A problem related to one of these themes would be selected and an educational intervention would be developed by group discussion.

Evaluation procedures would focus on rating the relevancy and quality of the instructional modules that each participant would develop in mini-group discussions. Upon completion of the workshop, each participant would receive a copy of all instructional modules to test his/her local nutrition education group activities.

Workshop Product: Instructional modules to be used as basis for improving the instructional guide and as input into message selection process. Each participant will have developed a prototype module for use in the training of nurses, nurse auxiliaries and aides/agents de santé.

c) Applied Social Science Workshop

In Year One, a workshop would be developed to enable BON rural personnel to acquire participant-observer ethnographic techniques for assessing rural family food consumption practices that can be positively influenced.

Technical assistance would be provided for one person-month by an anthropologist fluent in Creole with experience in studying Haitian folk healers in a rural community.

The workshop would be held in Petit-Goâve out of the health service facility. The nurse auxiliaries and all mothercraft center monitrices of the rural health service in Les Cayes and Petit-Goâve (Southern Region) would be workshop participants (approximately 20).

The content would include instruction related to participant observation techniques for collecting baseline information from rural families on ages of infants and children; family composition; food marketing practices; water and fuel resources; food preparation practices; quantity, frequency and quality of food consumption; intra-family food distribution; nutritional beliefs and practices during pregnancy; weaning practices; infant and child food consumption; use of docteur-feuille, sage femmes/matrones, charlatan and/or houngan, etc. The participants would be instructed on the preparation of educational messages and teaching materials based upon the family data.

Evaluation of the workshops would consist of a participant opinion profile in addition to an evaluation, by the peer group and the work-shop director, of the information obtained from the rural families.

Workshop product: Identification of characteristics of rural family living patterns; input into nutrition education strategy workshops and instructional program design. (a further contribution to the completion of the Nutrition Instruction Guide); development of a Program Content Priorities List (a written document).

II.B.6 A.2 Training the Trainers of Rural Health Implementing Personnel

a) Training of Mobile Health Training Teams

The DSPP has placed top priority on creating a Community Health Service that will emphasize extensive rural preventive care, as approximately 70 percent of Haitians live in rural areas without even rudimentary services.

The RHDS plan is to establish 275 dispensaries serving 1,500 rural agents de sante. Two trained auxiliary nurses will live at each dispensary and supervise the five-to-six para-professional health agents in that area. Each dispensary will serve 8,000 to 10,000 rural individuals with primary preventive and curative care.

The DSPP estimates that each health agent may be able to contact 150 families per month by home visits, visits to schools, markets and consultations. The agents will have supplies and knowledge to treat symptoms such as headaches, worms, diarrhea, respiratory infections, and minor cuts. They will provide contraceptives and counseling on family planning, community sanitation, and malnutrition. In addition, they will refer cases that can not be treated in the community to the medical staff dispensary.

To further expand the outreach of primary health care, the DSPP plans to create five mobile training teams to train the auxiliary nurses and health agents. The teams will consist of four people: a graduate nurse specialized in community health, two auxiliary nurses with experience in community medicine; and one health education specialist trained by ONAAC (National Office of Literacy Training and Community Action).

Twice yearly the Mobile Health Education training teams will hold two three-day refresher courses in each district for health agents and auxiliary nurses. The course content will focus on strengthening the activities of the health agents.

The mobile training team personnel play a key role in assuring quality health care in rural areas. It is certain that the teams need exposure to new ideas and methodologies in nutrition and nutrition education. To this end the BON education section would organize a nutrition education workshop focusing on applied skills and practices for teaching improved food practices to rural families. The workshop would be held during Year Two of Nutrition Education Project and would be directed by a nutrition education specialist with a Master's degree in Public Health Nutrition, experienced in the Haitian rural health program.

The 20 Mobile Health team members would attend the workshop in Croix-des-Bouquets or Petit-Goave if facilities permit.

The subject matter content, which would deal with concrete problems and practical solutions, would include priority nutrition themes. Emphasis would be on causative factors and feasible recommended practices for improving the situation. The themes would include:

- How to weigh and measure infants and children (must be done every four months);
- How to calibrate infant and adult scales;
- Diarrhea and oral rehydration (with one lime, two pea-sized pieces of salt, one Coke capful of sugar);
- child nutritional requirements and frequency of feeding of children up to five years of age;

- Support for breast feeding;
- Weaning practices and recommended use and preparation of local low cost foods, (puree banane, improved la bouilli and sauce pois;))
- Food consumption for lactation;
- Road to Health chart and how to teach mothers to record and keep the chart; and
- Food demonstration techniques.

To evaluate the impact of the workshop, trainers will observe members conducting a demonstration for a group of rural, low income mothers in the training area.

Commodity expenditures include ten standard calibration weights; ten infant height measuring boards, ten infant scales, ten adult BEAM scales, and ten adult measuring devices.

b) Contribution to Training Curriculum for Auxiliary Nurses

The Ministry of Health plans to train 560 auxiliary nurses in the next five years for the RHDS. Their nine months' training is expected to include hygiene, anatomy/physiology, contagious diseases, psychology, and nutrition. BON qualified staff members would become members of the curriculum development committee for input into the nutrition component of the training. Content would be defined during Year II.

As nurse auxiliaries are responsible for the functioning of dispensaries and supervision of health agents, the content should focus on their job-related activities.

The inclusion of relevant nutrition education subject matter within the nine months' nurse auxiliary curriculum should contribute to decisively influencing the rural food consumption patterns.

II.B.6 A.3 Participant Training Abroad

To increase the capability of the BON to plan and manage its expanded nutrition education activities, one two-year fellowship will be allocated for one BON staff member. Selection of one of the BON staff members will be on a comparative basis. Selection criteria would include: (a) experience in teaching nutrition to rural families, (b) experience in planning and managing educational strategies, (c) motivation to apply acquired knowledge and skills after return to Haiti, (d) knowledge of Spanish or language required for training.

The recommended program of study would be in the Department of Public Health, School of Medicine, University of Puerto Rico, Rio Pedras. The public health nutrition curriculum at the master's level is academically challenging. It allows for flexibility in line with students' varying interests. It also includes a field practicum for students to learn the application of knowledge with rural low income families. Puerto Rico's

rural population resembles that of Haiti's to much a greater extent than Guatemala's does (INCAP). BON's staff includes two nutritionists who completed the INCAP Public Health MPH program. It is not recommended that all staff be qualified similarly.

Because the curriculum of the nutritionist training program of the Pontifical Javeriana University of Bogota, Columbia, is presently reorganized, and because two BON staff members have already studied at the Javeriana, it is not recommended that participant training take place there. Also, in contrast to the applied nature of the program at the University of Puerto Rico, the programs at Harvard's School of Public Health are not geared to the conditions and needs of developing countries such as Haiti.

In addition to the long-term participant training, two short-term (four weeks) public health nutrition study tours are recommended for BON nutrition education staff (e.g. nutrition auxiliaries). The public health nutrition program throughout Puerto Rico has established norms for health services delivery, and has an ongoing practical nutrition education program. The patterns of living in rural Puerto Rico were studied in the 1960's by Dr. Lydia Roberts and serve as a baseline for evaluating the impact of nutrition interventions. Four weeks of supervised planned observations (Ms. Nexy Quinones) would strengthen capabilities and skills in program planning, and may stimulate innovative ideas for incorporation into the nutritional activities of the DSPP.

II.B.6-B Media Utilization

1. The Purpose

The purpose of this project component is to increase the capacities and skills of BON personnel and personnel of other agencies having nutrition impact to conceptualize, plan, design, implement, and manage instructional programs using audio/visual aids and mass media. Specifically, the activities related to media utilization aim to train BON staff and to develop capacities elsewhere (e.g., DFH) in order to:

- support and improve current nutrition education activities carried out by BON personnel (in mothercraft centers, health centers, and recycling seminars) and field personnel of MOH, MOE, PVOs, MOA, and other organizations operating at the community level; and
- to increase the population coverage and effectiveness of nutrition education and nutrition-related activities through the utilization of print/audio/visual aids and mass media (e.g., radio).

Given the impending reorganization of the DSPP, it is recommended that the capacity and skills for communication planning and management and for media utilization developed in the course of the project be integrated into any new educational structure that may evolve from the reorganization of the DSPP. This could mean, for example, that newly trained education personnel of the BON will be placed in an entity such as a Central Bureau for Health and Nutrition Education within the DSPP at some later point in time. Other qualified education and media production personnel from the DHF and other entities within the present DSPP could also be part of this central support service group.

This Central Bureau would be responsible for providing pedagogical and communication technical support to the divisions of DSPP.

It is strongly recommended that such a Central Bureau be created, staffed and equipped. However, it is realized that such a bureau can only be an end product of the reorganization of the DSPP, not one of the initial steps. Prior to the establishment of such a bureau, highly trained and experienced leadership, having the full support and encouragement of the Ministry of Health, and a qualified professional staff must exist.

Such a bureau would be ideally suited to meeting some of the immediate pedagogical and communication needs of the Bureau of Nutrition. However, no such bureau exists now. In the absence of any support and service group to meet these needs, it is recommended that technical assistance be provided to the Bureau of Nutrition in the area of media utilization. The Bureau can make immediate and profitable use of technical assistance to reinforce existing skills to personnel in the education section. Activities should include the production of print, audio and audio-visual aids, radio announcements and programs, planning for distribution and broadcast of Bureau-produced materials. BON field personnel and the field personnel of the Ministry of Health's new Community Health Service, as well as community-based agents of the Ministry of Agriculture, ONAAC, appropriate private voluntary organizations and other community organizations should also be provided with instruction about the appropriate use of these communication methods and media products in their activities.

2. Current Needs of BON in Media Utilization: Recommendations

At present, BON activities in the area of media support for nutrition education are rather limited. Media could enhance the effectiveness of the training of the monitrices, as well as the impact of the nutrition education sessions, if appropriate and well-designed, simple materials were made available. Monitrices, experienced in their work, should play a strong role in the development of further educational materials and media supports for use within the centers. At the moment, BON staff would like to expand and improve their materials. Few materials exist (e.g., the Guide d'Education Nutritionelle, a set of flipcharts); the BON staff finds their quality doubtful and wishes to pursue their pretesting and revision, or re-design. Also, the BON currently strongly desires not only to improve and revise the existing materials but also develop new ones (e.g. flannelboards, photo albums). Therefore, it is recommended that activities be supported to train BON staff to carry out the formative evaluation of their own educational materials, to teach BON staff the basic methods of communication design for educational purposes, and to aid BON staff to develop skills in the development of educational strategies for effective nutrition education program planning.

It is also recommended that activities be encouraged and initiated to provide training in the production methods of teaching materials, and a staff person added to develop new audio, visual and audiovisual materials. These materials should reflect the current knowledge, beliefs, and practices of Haitian rural populations as well as the needs. Special care should be taken to adapt the media and educational strategies to suit the conditions of their use.

3. Nutrition Education Expansion

In Haiti, the need is to expand the population coverage of nutrition education. This project's approach is to look for existing interpersonal networks and media channels by which larger audiences can be reached.

For nutrition education via face-to-face instruction, it would seem that the mothercraft center personnel, health extension agents (agents de santé, nurse auxiliaries), and other field agents are the chief targets for additional training and support. If their work can be strengthened to provide more effective nutrition education, then a much larger population can be reached with the nutrition messages.

For nutrition education via mass media, radio is the one mass medium that has the potential to reach almost all rural people. Thus, particular attention should be paid to strengthening the Bureau's capacity in this area. Until now, little systematic use has been made of mass media (radio, television, newspapers, films) for nutrition education in Haiti. There have been a number of disparate activities in the health area, some of which include some nutrition information, but most of them are without BON participation or support. Perhaps the best known are the radio programs and films sponsored by the Center of Family Hygiene and the Division of Family Hygiene, the in-school and out-of-school radio programs of Radio Educative, and radio programs broadcast by Radio Lumière, Radio Soleil, and other private (religious) stations.

At present, the BON education section is engaged in contributing nutrition themes for inclusion in Radio Educative's radio series, Étude du Mileu. These programs are aimed at students and teachers in the six grades of primary school. Further training of BON staff will be required in order for them to have an effective input into the content and format of these radio programs. Without substantial assistance and further communications/media training as well as training in how to devise nutrition education strategies, it is quite unlikely that the small BON education section would be able to take full advantage of the many opportunities offered by the presence of a fairly strong radio system. For example, radio programs and spots can be used for supporting the work of health agents, monitrices, and other community workers, as well as for sensitizing the rural population to the services offered them. Radio can also be used as one of the main ingredients for campaign-style nutrition education focusing on one single message in a very intensive way for a relatively short period. Another idea is to create "Mothercraft Centers of the Air" which would serve as support for the monitrices and as a linking mechanism for mothercraft center participants.

4. Inputs and Skills Required

In order to achieve the project purpose, to respond to the immediate communication support needs of BON, and to devise new teaching materials and communication methods and approaches for nutrition education, a certain number of activities are foreseen for the entire project period. These activities center around the design, pretesting, production, and distribution of appropriate audiovisual aids and radio programs for use by community workers as well as target audiences. In order to perform these activities well, technical assistance will be provided, communication workshops will be organized, short-term

out-of-country training will be provided, and in-service training will be conducted. Before describing in some more detail these four "inputs," a list will be given of the various skills which must be present at the end of the project.

4.A Skills Required

The project aims to develop the following skills in the area of instructional program design and communication support:

- Planning and design of nutrition education strategies oriented toward the current knowledge, attitudes and practices of specific target populations (in conjunction with project component A, Field-Based Training).
- Selecting content and theme priorities with a nutrition education strategy.
- Designing messages for comprehension and clarity.
- Audience selection to identify subunits of the population that are possible target groups for a particular communication or an overall education strategy. For example, the participants in the mothercraft centers and in nutrition education courses, women in the reproductive age group, pregnant women, mothers and fathers of children up to five years of age, primary school students, participants in ONAAC listening groups, monitrices, agents de sante, other outreach health workers, other field agents such as teachers, agricultural extension agents, and so on. All could be seen as target groups for some particular nutrition education activity. Skills can be learned for assigning appropriate audiences for particular content, themes, and message styles.
- Media or channel selection. Channels can be either interpersonal or media of several kinds. Interpersonal channels would include the change agents in the health delivery system having some nutrition education impact (monitrices, agents de sante, auxiliary nurses, for example) and other change agents such as agricultural extension agents and ONAAC listening group leaders. These change agents can be supported or not supported with print, audio, visual, or audio visual aids, and by mass media. Other media such as radio, cassette recorders, films, slides, printed materials, photographs, etc., can play some role in conveying information and skills to the public. Learning skills for appropriate channel selection, given learning objectives, need to be included within a training program.

Depending on the kind and scope of media production undertaken, several other levels of skills may be either fully or partially developed within BON education section personnel. It is understood that, depending upon the type of technical and creative message production skills required, BON will work in close collaboration with organizations such as DFH/CFH and Radio Educative. This should improve the chances of efficient and effective production, and avoid duplication of efforts. These other skills include the following:

- Message design
- Media production
- Message and media product pretesting
- Media distribution
- Media impact evaluation

4.B Technical Assistance

The bulk of training in the media utilization component of the project will be in-service training, which will be carried out with the aid of a nutrition education communication specialist,¹ resident during the first three years of the project. One short-term technical assistant for three two-week communication workshops to be held in the course of the first three project years is also included. Additional person-weeks of assistance for workshop followup are also provided.

4.C Out-of-Country-Training

The out-of-country training will consist of eight weeks of study tours and conference participation during the life of the project. These study tours will carry one or several members of BON education section to one or more communication production facilities and/or projects with important and effective development support communication components in nutrition education in the USA and/or Latin America (e.g. ACPO in Colombia, Radio Santa Maria in the Dominican Republic). If, during the course of the project, conferences might be organized for which BON education section personnel could make a contribution, participation in such conferences is encouraged.

4.D Workshops

The three two-week communication workshops will deal with the conceptualization, planning, managing, designing, pretesting and production of nutrition education communication strategies and messages. These workshops will involve not only key BON personnel but should include personnel within other MOH offices, at the Ministry of Education, of Agriculture, from PVOs, etc., who have a strong interest in nutrition education and health. Up to 20 participants will attend each workshop.

In the beginning of the first year, the content of the first workshop should be defined according to the present needs and activities of the BON nutrition education staff through consultation with BON and the resident technical advisors. The content of the second and third workshop will be specifically defined in the second year. Presently, the critical learning focus of these staff skills-training workshops² are:

¹ See Annex A for qualifications and job description.

² It is suggested that these workshops aim at producing actual media products, e.g., photo-pamphlets, posters and radio program scripts.

I or II - Management of Nutrition Education Communications:
Division of Labor in Communication/Media Production and Evaluation
(Skills areas 1, 6-10)

I or II - Formative Evaluation:
Fitting the Program Design and Message to the Audience and Channel
(Skills areas 3, 4, 5, 6, 10)

III - Formulation of Nutrition Education Communications:
Selecting a Focus for Program Content and Message Design (Skills
areas 2, 4, 5)

4.E In-Service Training

The in-service training of BON education section staff (4-6 persons) will be organized around current and future activities concerning:

- a) developing, designing, pretesting, producing, using, and evaluating audio, visual and audiovisual aids for nutrition education sessions and for nutrition education training of professionals and paraprofessionals. These media items may be, for example, booklets, flipcharts, posters, flannelboards, photo-pamphlets, filmstrips, slides, sound-slide sets, demonstration models, and so on.
- b) developing, designing, pretesting, producing, and evaluating radio programs with the following functions:
 - publicity and promotion of the work of monitrices and agents de sante,
 - broadcasting messages aimed at changing knowledge, attitudes, and practices of selected target audiences with respect to nutrition habits and food consumption patterns,
 - complementing and supplementing nutrition and nutrition education-related activities of community-level personnel, such as primary school teachers, PVO agents, agricultural extension agents, and community development agents.

5. Media Utilization Activities by Project Year

Year One:

In Year One, the project activities around which in-service training will be organized should first answer current needs before new activities and strategies are planned or new materials developed and radio programs produced. Consequently, Year I of the Project will be largely devoted to the testing, revising and distributing of existing nutrition education materials.

5.A.1 Specifically, BON education section staff will (1) test and revise the Guide d'Education Nutritionelle with the aid of the resident technical assistant, (2) test and revise the flipcharts actually used and determine their usefulness for monitrices (during their training as well as for their use in mothercraft centers), and (3) test and determine the usefulness of proposed flannelboards for use in health centers and dispensaries.

5.A.2 The second activity in Year I is the collaboration of BON education section personnel with Radio Educative for the production of the nutrition programs to be included in the Etude du Milieu series for students in the lower levels and upper levels of the primary school. The Etude du Milieu series contains programs dealing with physics, biology, geography, and health. The introduction of nutrition information seems useful but, given the fact that most nutrition and food decisions are not made by small children, a serious effort must be made to address those topics that are relevant for children in a way that is appropriate to their levels of comprehension and attention span.

One of the elements that may contribute to the improvement of these radio programs is conducting a content analysis of existing nutrition educational materials and of existing nutrition content in radio programs (e.g. Etude du Milieu, Radio Docteur, Radio Famiale, Classe d'Hygiene, les Mains dans les Mains). Because the results of such a content analysis will be a basis upon which future nutrition education activities can be planned, this study should take place early in year I.

In order to perform well the activities mentioned under 5A1, 5A2, 5A3, it is necessary that BON education section staff, and particularly those who are engaged in one or more of these activities, initiate and strengthen the contacts with agencies providing and producing communication support for health and development education and information. These contacts are useful for coordination of educational strategies to be developed during the life of the project, and for obtaining technical collaboration necessary for producing media items and radio programs.

BON Education

The section with technical assistance will develop a four-year plan for in-service training of BON personnel through their active participation in instructional program design, message selection and testing, audience and channel selection, visual aids and media program production and distribution. This plan will be drawn up early in Year I.

Year Two:

In the second year of the project, new media utilization activities should be started. At that moment BON personnel, as well as other interested parties' personnel, will have participated in one communication workshop and will have gained experience and skills which can be used for developing new strategies and communication means.

The main new activity is the designing, testing, production, and distribution of a photo-pamphlet or similar simple visual aid to be distributed to about 3000 mothercraft center participants (mothers, fathers, caretakers) and about 3000 participants in courses and sessions given by auxiliary nutritionists and other BON personnel. The photo-pamphlet may be a concrete result of the second communication workshop to be held in Year II.

5.B.2 This activity assumes that mothercraft center participants and nutrition course participants are key audiences for nutrition education messages and that the photo-pamphlet contains essential and priority nutrition information. Therefore, the development of nutrition education content priorities and identification of key audiences, channels, and instructional strategies is an activity that will take place simultaneously, or, if possible, beforehand (e.g., Year I as a result of the first Communication Workshop).

5.B.3 The future and more extensive use of radio for expanding the reach of nutrition education messages implies that more needs to become known about the radio listening habits of the Haitian population. Therefore, in Year II, the BON, in collaboration with capable and interested third parties (e.g. Faculty of Human Sciences), will conduct a small scale applied study on radio ownership, access, and exposure. This study may be based on data already gathered by others.

5.B.4 The pretesting of pictures, images, and drawings forms an essential part of developing, designing, and producing appropriate teaching support materials. Up until now, a very limited number of studies have been conducted on the way in which illiterate and semi-literate people come to understand and comprehend visual images.¹ In order to improve the use of pictorial images in teaching materials, it is necessary to undertake another applied study on pictorial/visual literacy. Other educational agents (e.g. DFH, Radio Soleil, IPN, and ONACC) may be expected to share a research interest in this area due to their need to use pictures and images in their pedagogical materials. It is also in their interest that more becomes known about the nature and extent of pictorial illiteracy among various audience groups, and ways one can teach people to decode visual images. Therefore, in Year II, a pictorial literacy study effort will be initiated in collaboration with interested parties.

5.C Year Three

In Year III, the BON will start a major effort to integrate nutrition education into the services offered by MOH (DSPP) and MOE in two selected regions of the new DSPP regionalized community health service. This is the moment to give nutrition education manuals to the health agents in these regions and to instruct them about their use. Developing, pre-testing, producing, and distributing this manual (based on activities in the third communication workshop) will be a major activity in Year III.

5.C.2 While the nutrition educational manual provides guidelines to the health agent's nutrition education activities, it will be useful to support these activities by inserting a foldout poster, or equivalent simple and portable visual teaching aid, into his/her kit. The designing, testing, producing, and distribution of these foldout posters (or other media items decided upon later) would constitute another activity in Year Three.

¹ See Ron Parlotta, Report on Visual Literacy Research and Recommendations.

5.C.3 One of the objectives of the "integration" component of the project is to integrate nutrition education into the activities of primary school teachers. In order to facilitate and support this, the BON will design, test, produce, and distribute a series of five photo-pamphlets or equivalent pedagogical materials for the use of primary school students in the upper three grades, in the two regions selected for the field trial.

II.B.6.C Field Trial in Two Regions

A substantial number of activities foreseen in the first and second project components (field-based training and media utilization) are aimed at improving the institutional capacity and technical skills of the BON representatives of related agencies for conducting nutrition education. As said before, most training is practical, problem-solving, participatory and field-based training with the intention to strengthen the training of trainers, and thus to improve the training of local health workers in nutrition education. The training in media utilization is also practical and participatory. It is centered around the current and new actions for developing and producing effective audiovisual and media support for nutrition education activities.

Both project components will contribute to the capacity of the BON, and particularly to its education section, to plan and manage coherent and appropriate messages and media channels. The actual test of this planning and managing capacity will be the objective of the third project component. It is the purpose of this third component to develop and demonstrate an effective methodology for extending the population coverage of nutrition education, and thus for increasing its potential impact, by means of a trial demonstration. This trial demonstration will be based on, and will utilize, the improved training and communication/media capabilities developed in the first two project components. It will combine nutrition education and nutrition-related activities with the efforts of health, education and other community workers, by soliciting and organizing their active support and collaboration, by supporting them with appropriate nutrition training and pedagogical materials as well as radio programs.

For the trial demonstration to be successful, there must be a consensus at the national level about its importance and potential benefits. Cooperation and collaboration at the national planning level are necessary for inter-ministerial cooperative actions to occur at the local community level. Reports of many integrated rural development projects around the world show that local cooperation and collaboration between the agents of various ministries and organizations usually fail because the local workers do not receive sufficient political and technical support from their superiors. In the context of this project, a serious effort should therefore be made to create this political support and to bring about the conditions leading to effective administration and technical support from top to bottom. To this end, the BON, and in particular its directorate, will organize an interministerial or inter-agency committee to coordinate all nutrition-related activities in the country. This committee will convene in the first project year, and will designate a standing committee to prepare and execute its decisions. It is foreseen that the committee will meet once a year. Participating members of the committee will include, but not be limited to, representatives of the BON, Ministry of Health, of Education, of Agriculture, ONAAC, Radio Educative/Nationale, UNESCO/UNDP/ UNICEF, CARE, and other PVOs active in the food and nutrition area.

Establishing a National Committee does not guarantee that automatically the local agents of the various participating agencies and ministries will integrate nutrition-related activities into their daily work. The National Committee, in close collaboration with the BON, needs to develop specific centers of action to arrive at this situation. (See below). Given the magnitude of the nutrition/malnutrition problem, and the inexperience with integrated actions at the local level, it is suggested that actions aimed at local collaboration be restricted to one or two regions. This will facilitate the supervision and evaluation of these activities and guarantee a certain degree of success. It is not only the purpose of this project component that nutrition activities are carried out by personnel other than specific nutrition personnel, but also that a methodology is developed for organizing and coordinating such activities -- a methodology that may be followed in other parts of the country after termination of the project.

Another argument for selecting only one or two regions for this trial demonstration is that, at the time it will take place, particularly in the second phase of the project (Years III and IV), only two regions are likely to have a reorganized and functioning rural health delivery system. Because at that time the MOH will have the largest number of community workers and because the agent de santé is one of the most appropriate workers to be included in nutrition extension activities, it makes sense to concentrate efforts in these two reorganized health regions. Thus, the actions proposed for the third project component are a step in the direction of the vertical integration of health services aimed for by the DSPP reorganization plan. The two regions should be selected using the following criteria:

- the RHDS is fully staffed and working according to plan;
- the community agents from relevant ministries should be in action in the areas;
- the project is agreeable to the regional and district chiefs at DSPP and other ministries involved.

In the second project phase, under the auspices of the National Coordinating Committee, two intra-regional coordinating meetings will be organized, possibly chaired by a specially designated person of the BON, to motivate participating agency officials and to stimulate nutrition activities in the region. These meetings will be preparatory to a series of local small group meetings in which local health workers, monitrices, school teachers, agricultural extension agents, QNAAC community development workers, and representatives of interested PVO's will participate. These latter meetings, to be started in the third year and to continue thereafter, will be initiated and chaired by a specially designated BON representative. The function of these local meetings is to motivate community workers, to instruct them concerning their role in the nutrition activities, and, if necessary, to distribute support materials.

Nutrition Education Campaigns

Nutrition (education) activities at the local level in the two regions will be organized in a campaign-style fashion. The major characteristics of an educational campaign are these:

- 1) that only one specifically defined theme, topic area, or subject is addressed;
- 2) that it is restricted in time, and often also in place -- only a relatively short period is used for diffusing the message (several months) in a very intensive way. Campaigns may go on a longer period (a year, for example) but within that timeframe, usually several "waves" or stages are organized, each around a principal message or set of behavioral recommendations;
- 3) that it uses a large array of resources and channels in order to reach as large as possible an audience in a short period of time, and to allow for proper preparation and follow-up at the local level;
- 4) that a large number of channels are used to diffuse the message so as to achieve a wide population coverage. A good example of a nutrition campaign is the "Man Is Life" campaign in Tanzania in 1972. It is recommended that BON staff, when preparing campaigns, have the opportunity to read and study the experiences from elsewhere in nutrition campaigns. To this end, a research library on communication/education in nutrition and other health areas should be collected and kept up-to-date during the course of the project.

Central Activity

At the end of Year III, a small nutrition campaign on one central theme will be organized in the two selected regions. This campaign will be carried out under the auspices of the National and Regional Coordinating Committees and will be technically prepared by the BON in collaboration with participating ministries and agencies. Based on the experience with the first trial campaign (of 4-to-6 months in length) a larger campaign plan can be organized in Year IV. The appropriate time depends on the agricultural calendar, the calendar of activities of the participating agencies, and the topic to be dealt with in the campaign.

Campaign Themes and Messages:

The campaigns should address one single, simple theme or set of messages, the implementation of which is not restricted or prohibited by lack of resources. For example, a campaign which would urge people to boil their drinking water, in the context of a widespread scarcity of firewood and other fuels, would probably have little success. A campaign urging people to improve their protein intake by eating more dairy products, meat, and cheese would probably not succeed in rural Haiti where poverty is such that animal products are not within their means. A careful analysis of the reality of people's daily lives underlies all campaign planning. Intervention points are chosen on the basis of the feasibility, given the options open to the planners. Campaign themes should be chosen from among a list of the changes people can realistically make in their food behaviors that will improve their food consumption pattern or that will promote child health. Ideal patterns must give way to a selection from among those which are realistically possible for people to do on a day-to-day basis.

II.B.7 Evaluation

Evaluation forms an integral and necessary element of this project. Evaluation will be performed during the life of the project, at the end of each major project activity. There will be no final summative evaluation in the sense that an external assessment needs to be made of the progress and impact of the project. However, the various evaluations performed during the project will provide a base for a comprehensive judgment about the worth of the project and its achievements.

In educational projects that aim at immediate changes among their target populations, it is necessary to perform an evaluation, at a minimum, at the end of the project in order to determine project effects and program impact. Usually, effects are assessed by comparing the status of knowledge, attitudes, and practices existing prior to the project with their levels at the end of the project. This project differs from direct educational intervention projects in that its basic thrust is to strengthen the institutional capacity to create educational interventions which, at the present moment, are rather limited. The best way to determine whether this purpose has been achieved is to obtain the answers to these two questions:

- 1) Have all the proposed activities been carried out within a reasonable sequence?
- 2) Have the scheduled project outputs been produced?

In other words, at the end of the project one should ascertain

- 1) whether all workshops foreseen and scheduled were held;
- 2) whether in-service training took place;
- 3) whether out-of-country training and short-term foreign study tours were completed;
- 4) whether audio, audiovisual and print support materials were produced and distributed;
- 5) whether radio spots and programs was produced and broadcast;
- 6) whether interministerial and interagency meetings on the national, regional and local levels were held;
- 7) whether the nutrition education campaign were planned and conducted.

The summing up of all these outcomes will be performed by the BON in collaboration with USAID at the end of the project. The extent to which the BON is capable of performing such an evaluation will be another indication of their strengthened institutional capacity. Such evaluation could be called "management evaluation," assessing whether all the resources and other inputs were assembled and organized for reaching the outputs required.

In order to perform management evaluation, one should-- in the course of the project at special points in time-- assess whether a certain activity was carried out, whether its objectives were reached, whether the methodology foreseen was followed, and whether the budget and the time-schedule were respected. This means that evaluation becomes a necessary component of each

For Haiti, some appropriate campaign themes might be:

- 1) the more frequent feeding of the child under five years old (several times a day);
- 2) oral rehydration methods for children suffering from severe diarrhea;
- 3) supplementary foods for the six-month-old baby;

4) the concept that the older the child, the more food the child needs. Nutrition education strategists will have to make the selections of themes and set campaign priorities according to the best available data and the professional experience that can be brought to bear on the analysis. Whatever the theme and messages chosen to carry out the theme, the campaigns should contain messages that stress:

- a) one central behavioral skill to be learned and applied;
- b) simple step-by-step how-to-do-it explanations;
- c) information about possible counter-arguments raised to the recommendation, arising from the folk culture, existing attitudes and beliefs;
- d) information about the positive consequences of taking the recommended steps or actions (e.g., effects on child, self, family).

In general, it is important for campaign planners to analyze the life situation of the target audience in regard to the message and identify all the potential barriers to acceptance and adoption of the recommendation(s); then message content for the campaign should systematically be prepared to address these issues. It will be the task of the campaign designers and managers to see to it that this single message concept is ingeniously designed and thoroughly pretested to ascertain its fit with the target audience and to the channel and/or media vehicle used to convey the message(s) to the public.

A campaign, by definition, uses as many channels as possible to focus the audience's attention on the campaign topic. Thus, the first short campaign envisaged for Phase II/Year III will not just be a mass media campaign. All kinds of different communication channels will be used simultaneously. In Haiti, the interpersonal channels may be the most important. Radio programs, and other pedagogical materials will serve as support. Auxiliary nurses, health agents, school teachers, and other community agents will work with community councils, local leaders, and the population at large. They must make practical demonstrations of new nutrition practices. They must do the follow-up once the campaign is over.

Evaluation:

It is understood that, at the end of the third year, the BON, with technical assistance, will conduct an evaluation of the first campaign. The results of this evaluation will serve as guidelines for the organization of the second campaign in Year IV. The second campaign will also be the object of an evaluation at the end of Year IV, using a similar, though improved, research methodology to that used in Year III.

project activity, and that it will be performed by various BON staff, technical assistance personnel and, in particular, the participants in training sessions.

Specifically, evaluation will be a component of each of the three groups of activities:

- A) field-based training
- B) media utilization
- C) regional field trial.

A) Field-Based Training

At the end of each workshop, an evaluation will be held. The participants and the leadership of the workshop will discuss together whether they are satisfied about the process of the workshop.

In the workshops that aim at acquiring certain training skills, each participant will conduct a micro-teaching session, which will be observed and rated by other participants and the leadership personnel. The rating system will reflect the objectives of the workshop. The rating will determine whether the participant is able to lead the training sessions for others. The rating scores achieved by students will constitute a rating, of a kind, on the leadership and management of the workshop itself.

In the workshops in which the participants have to produce a product through individual and/or small group discussion and work, the quality of their products will also be rated according to a set of criteria developed during the workshop. For example, if the product is an educational unit or module,¹ the leadership with the group will set criteria for a "good" quality product in the early stages of the workshop. Final products will be assessed by the leadership against these criteria. Again, the ratings given to the "products" will constitute a rating of the leadership and management aspects of the workshop.

B) Media Utilization

In the media utilization activities, evaluation forms an essential element. The design and development of audio, visual, audiovisual, and print materials as educational support and for mass media messages/strategies require a permanent feedback system to ascertain that approaches, materials and messages are appropriate and understood by the audience target groups. Feedback is also essential for media planners to enable them to incorporate audience reactions and desires and to reflect changing levels of information, awareness, and practices in the next wave of media development and production. New media products and strategies evolve gradually as more is learned about the response to products already in use. It will be one of the objectives of the various communication workshops to establish appropriate feedback and monitoring systems for teaching materials and media strategies and content.

¹ See p. 49.

As said before, at the end of each communication workshop, the products produced will be an indicator of how well the objectives of the workshop were achieved.

Moreover, at the end of each media utilization activity which has a media product as its outcome, it will be assessed whether the product was produced, distributed, or broadcast and properly used for its intended purposes. Specific plans for such an assessment, including types of indicators, will be developed as part of each media utilization activity.

At the end of the project, as a parallel to summative evaluation, it may be assessed whether the number of minutes of radio broadcast devoted to nutrition education has increased, and if so, in what amounts. Also it would be necessary to find some means to determine whether this was a consequence of project activities. The findings of the content analysis of nutrition education activities in the country, to be performed in the first year of the project, could serve as the baseline measure of comparison.

C) Regional Field Trial

The nutrition education campaign, around which the field trials of acquired skills and capabilities are going to be organized, will include an important evaluation component. As is the case with the planning and implementation of any educational strategy, a formative and process evaluation component should be distinguished. The formative evaluation will focus on message development and production. The process evaluation will focus on the methodology followed to plan and manage the campaign.

The process evaluation results will describe in detail all the elements that contributed to the campaign. It will ascertain whether appropriate use was made of all the available resources, and whether all conditions were in place to guarantee a certain degree of success (the inter-agency meetings, for example). If possible, depending on the circumstance in which campaign and evaluation will be conducted, an assessment should be made of cognitive, attitudinal, and behavioral changes in the target population(s) in terms of the objectives set for the campaign. Indicators of success could be: proportion of the target group(s) reached (aware of the presence of the campaign, able to quote the major slogan or theme of the campaign, etc.); degree of recall (knowledge of major content messages gained by "X" percent of population reached); degree of understanding and comprehension improved; and numbers of persons reporting adopting new practices or modifying current practices in advocated ways.

Any evaluation should be simple in design and execution, given local conditions and the lack of any trained personnel in evaluation methodology; the lack of any computers or computer software of any kind in the entire country; the dispersment of the rural population over very rugged terrain which makes household interviewing very difficult (and, even then, calls for donkeys, 4-wheel drive jeeps, inflatable rafts for fording rivers and the like).

Evaluations should not be based on sophisticated methodology requiring computer-based analyses, or large-scale population or audience surveys. They can be done, but at great cost and effort which is judged well beyond the investment that should be made here for the information to be returned. Other simpler means are better suited to the evaluation needs and to the local infrastructural conditions. Because the campaigns will be restricted to one or two regions, a small localized sample survey using simple, informal (e.g. a systematic as opposed to random sample) methodology would suffice, provided it were to be supplemented by intensive participant observation and individual or small-group "focussed" interviewing techniques. Precise methodologies for the evaluation components should be planned and budgeted as part of the workplan for each year of the project. These plans for the first year or two would be the responsibility of the training director (for activities in that area), the educational technology technical advisor (in the media utilization area), in conjunction with the project director and the evaluation section chief. In Year II, or certainly in Years III and IV, the project director and evaluation chief should be fully responsible for design and conduct of program evaluation activities.

PART III: PROJECT ANALYSIS

III.A Technical Analysis

1. Overall Project Methodology

Previous sections of this project paper have not placed the project in the context of relevant past and ongoing research. However, the project is conceived of within that context and is based on the practical application of evaluation/research findings to the realities and existing conditions operating in Haiti at the present time.

A strong case could be made about how several decades of communication research and research in nutrition education and educational technology are fused and integrated into the plan presented herein. However, to provide such text within the timeframe allowed to develop this project paper was not possible. It would be a useful exercise to do so, and thus it is recommended that the Haiti Mission, Public Health Office, contract for a technical analysis of this project paper with a view toward extending and/or revising portions of it. Such an analysis should also include an assessment of:

- a) the appropriateness of the project components for the purposes to be served, within the Haitian context;
- b) the relationship of the methodologies to be developed to the existing state-of-the-art in communication, nutrition, and educational technology-media research;
- c) the further definition of how these research traditions can inform and direct project activities;
- d) the possible extension and elaboration of the project in terms of the study of the role of media in formal and non-formal nutrition education;
- e) the possible extension and elaboration of the project in terms of the study of the nutrition and food-related practices of the Haitian urban/rural population and their relationship to features of the traditional folk culture;
- f) the identification of important "missing pieces" of the project paper and the development of new material and text in those areas.

2. Environmental Impact

There will be no discernable environmental impact as a consequence of this project.

III.B Social Analysis

In the section on Beneficiaries (I.C.3), a statement about which subgroups of the population will receive the project's services is presented. Also, detail is provided there about the general ways in which these various groups will derive benefit from the project described herein.

From the social perspective, infants and small children throughout the rural population of Haiti should ultimately derive health benefits through the improvement of food consumption patterns leading to an improved nutritional status. Project impact desired is for project activities to make a solid contribution to a reduction of mortality and morbidity in infants and small children caused by severe malnutrition or the malnutrition-infection-diarhea syndrome. It is hoped that greater numbers of the estimated hundreds of thousands of malnourished Haitian children will live, that fewer will die of starvation and disease. Those responsible for the care of children will receive more relevant and useful instruction and information, as well as increased emotional and environmental support due to the more widespread presence of nutrition information in the rural areas. In turn, this instruction will directly benefit the well-being of its recipients and all the older children and adults in the household and within the immediate kinship group. The increased good health of those being cared for should provide the caretaker with important psychological benefits contributing to general well being.

Participating health professionals will directly benefit from the project by increased support for their activities through the various training programs and through the increased availability of instructional guides, educational materials, more training in nutrition education among their peers and associates, and the presence of supporting messages and promotion through the mass media. Health professionals and paraprofessionals directly responsible for nutrition education and for delivery of services in rural areas will benefit by the in-service training that will enable them to perform their work with improved effects. Men and women will share equally in the benefits of this project, as will boys and girls. Mothers and caretakers (female or male) may expect to be the predominant adult beneficiaries (other than health professionals). Both men and women can benefit equally from the reduced mortality among their children; both men and women can share equally in the personal benefits to be obtained from improved food consumption practices and health behaviors. Finally, both men and women health education personnel participating in the project or indirectly (through the "training of trainers") can benefit equally from the assistance and training provided.

There are no known social impediments to project success. Efforts to be undertaken are an improvement and expansion of existing lines of action. As such, there is ample evidence of their acceptability to the professionals and to the general population. The project aims to improve and expand already valued services, and in some cases will increase the abilities and competencies of indigenous staff to provide these services.

Some resistance to project objectives may occur as a result of current beliefs and mores among the population. In Haiti, this is particularly important; the expertise of native Haitian medical anthropologists and sociologists should be taken into account and project personnel should take care to understand the underlying cultural traditions and their relationship to project objectives. Much that is traditional and revered in the culture relates to the causes and rationales for disease and health. Project design and actions must respect the existence of the beliefs and practices of the population, as they currently exist, and work within that framework to improve nutrition practices in Haiti.

III.C Economic Analysis - No text material prepared in this project paper.
III.D Budgetary Analysis

IV.B Implementation Plan

A single institution, the Ministry of Health (DSPP) will be selected as the executive agency for this project. Within the DSPP, the Bureau of Nutrition will be identified as the primary implementing agency for the GOH.

The Bureau of Nutrition is expected to provide project office space (although the budget includes support for additional space and office facilities), a telephone, and designate management and health education personnel, including the counterpart trainees to receive in-service training, to work full time on the project.

The remaining required personnel will be direct hire technical advisors resident in Haiti for the periods assigned (see text above), on professional services contracts to AID Haiti, Public Health Office. Their personal services contracts should provide for their full salary and benefits, as well as allowances for transportation of self and family, internal transportation, housing allowance, medical care, holidays, allowances for office space and office support including telephone, furniture, office equipment and supplies, office budget, and other details to be determined through negotiation. The workshop budget and other (to be determined) costs will either be assigned to the resident advisors or to the GOH grant, as determined by AID, Haiti, Health Office. Other project support (to be determined) will be directed toward the primary implementing agency, the _____ (BON?) through a grant to GOH, via DSPP. The grantee will locate and hire the remaining required personnel and provide the required material inputs and training to conduct the project. Project agreements with AID will be negotiated and signed after _____.

Within AID, Haiti Mission, Public Health Office will provide _____ months of staff time per project year to monitor the project. A full-time project officer is recommended, either as a continuing appointment or to fill a newly created full-time position, this position to be assigned to the AID Haiti Mission, Public Health Office.

ANNEX A TO NUTRITION EDUCATION PROJECT

SELECTION CRITERIA AND JOB DESCRIPTION FOR TECHNICAL ASSISTANCE

Selection Criteria

An absolutely necessary criterion for all technical assistance to the Haitian Nutrition Education Project is that the specialists to be selected have an excellent knowledge of French. It is also highly preferable that they know Creole, it being the language of over 90 percent of the Haitian population. If the resident technical assistants do not speak Creole, it is highly recommended that they follow an intensive course in Creole at the start of their duties in Haiti.

Another selection criterion that applies to all technical assistants, either temporary or resident, is that they have extensive experience in developing countries, preferably French speaking. African experience seems particularly helpful given the many African characteristics of Haitian culture and society.

A third, almost obvious, criterion is that the experience of the technical assistance is not limited to the academic or other formal educational environment. It is highly desired that the technical assistants have acquired and practiced their expertise and skills in daily contact with local trainers, community workers, and ordinary people. This also points to the requirement that they are able to establish and maintain human relations, in an easy manner.

Health Training Specialist with background in nutrition will assist the BON program and project directors and headquarter's staff in developing and specifying the in-service training and field-based training program for BON staff and others, dealing with the design and implementation of appropriate nutrition education interventions;

- will assist in planning and running field-based nutrition education workshops, and will assist in coordinating them with the communication workshops and other media utilization activities, in close collaboration with the educational technology specialist;

- will actively participate in the field based workshops, as trainer and ordinary participant;

- will assist in providing continued in-service training, in close collaboration with the educational technology specialist;

- will assist in defining a program of study for the participants in the long-term and short-term participant training programs;

- will assist in re-integrating participant training participants into BON activities, upon their return.

Nutrition Education Technology Specialist will assist the BON program and project directors in developing and specifying a plan for in-service training of BON personnel and a small group of "outsiders" in methods and techniques of audio-visual support materials and communication media production;

- will assist in planning and running nutrition communication workshops, and will assist in coordinating them with the field-based training workshops and other media utilization activities, in close collaboration with the training specialist;
- will actively participate in the communication workshops, as trainer and participant;
- will assist in pretesting and revising current nutrition education material, and in designing, pretesting, producing and distributing new and innovative audiovisual aids as well as radio spots and radio programs;
- Will assist in planning and coordinating nutrition campaigns;
- will teach BON personnel and interested "outsiders" simple methods and techniques for audiovisual message production and radio programming, either on an individual basis or with a small group.

Short-term Consultants

A number of short-term consultants are foreseen in order to provide specialized technical assistance for the field-based training and communication workshops. Depending on the specific objectives and topics of the various workshops, BON staff and resident technical assistants will define their job description and qualifications.

Counterparts

- (a) The program director, who is also the Director of the Bureau of Nutrition, will be the general supervisor of the project. The program director, in close consultation with the project director and technical assistants will define the overall educational policy of the BON. She/he will be particularly responsible for initiating and carrying through the integration of nutrition and nutrition education related actions into the activities of other ministries and agencies, at the national, the regional, and local levels.
- (b) The project director, who is also the head of the BON education section. She/he will be the day-to-day manager of the project, in close consultation with the technical assistants. The project director will oversee the activities in the areas of field-based training and media utilization. To the extent possible, she/he will actively participate in training and communication workshops, and will be a central figure in the organization of the nutrition campaigns and other activities aimed at integrating nutrition education into the work of community workers.

- * (c) The training coordinator will be the direct counterpart of the health trainer technical assistant.
- * (d) The communication manager will be the direct counterpart of the educational technology technical assistant.
- * (e) The visual aids and layout designer will assist BON staff in designing and actually producing printed teaching support materials. (This position may be filled by hiring free lance professionals on a job basis if it seems advisable).
- * (f) The intra-regional nutrition education coordinator will play a significant role in integrating nutrition education activities in the work of community workers. She/he will be the chief coordinator of the actions of health agents, agricultural extension agents and other community workers before and during the planned nutrition campaigns in two selected regions. This person will spend a majority of his/her time in the field and out of the Bureau performing liaison functions.

*It may be desirable for one of the current nutritionists to take on this role or it could be new staff. Jobs (d), (e), (f) are all presumed to be new, additional staff.

ANNEX B: NUTRITION EDUCATION IN HAITI: SUMMARY BUDGET BY YEAR

12/15/78

Ref. #	Cost Category	Year I	Year II	Year III	Year IV	TOTAL
1.	<u>Construction & Renovation</u>	\$ 8,000	\$ 2,000			\$ 10,000
2.	<u>Equipment & Supplies</u>	38,950	28,080	23,354	17,856	108,210
2.A	<u>Equipment</u>	<u>22,230</u>	<u>5,170</u>			<u>27,400</u>
(1)	Capital Equip.	19,530	4,470			24,000
a.	Office	9,530				9,530
b.	Media	10,000	4,470			14,470
(2)	Minor Equip.	2,700	700			3,400
a.	Office	700				700
b.	Media	2,000	700			2,700
2.B	<u>Supplies</u>	<u>6,400</u>	<u>10,010</u>	<u>7,874</u>	<u>4,956</u>	<u>29,210</u>
(1)	Office Supplies	2,790	2,790	2,790	2,790	11,160
(2)	Educ. Material Product. Supplies	3,610	7,220	5,054	2,166	18,050
2.C	<u>Educ. & Media Production</u>	<u>10,320</u>	<u>12,900</u>	<u>15,480</u>	<u>12,900</u>	<u>51,600</u>
(1)	In-house prod. (Workshop prod. included)	7,920	9,900	11,880	9,900	39,600
(2)	Technical Serv. (lab print. etc.)	2,400	3,000	3,600	3,000	12,000
3.	<u>Vehicles</u>	<u>28,000</u>	<u>14,000</u>			<u>42,000</u>
4.	<u>Vehicle Maint.</u>	<u>4,000</u>	<u>6,000</u>	<u>6,000</u>	<u>6,000</u>	<u>22,000</u>
5.	<u>Technical Asst.</u>	<u>200,650</u>	<u>194,050</u>	<u>190,050</u>	<u>184,050</u>	<u>768,800</u>
5.A	<u>Long-term</u>	180,000	180,000	180,000	180,000	720,000
5.B	<u>Short-term</u>	15,000	10,000	6,000		31,000
5.C	Study & Res. Trips	4,050	4,050	4,050	4,050	16,200
5.D	Creole Training	1,600				1,600
6.	<u>Training</u>	13,310	13,310	1,360	1,360	<u>29,340</u>
6.A	Participant Tr.	9,500	9,500			19,000
6.B	<u>Study Tours</u>					
1.	Intro. Educ.	2,450	2,450			4,900
2.	Media Trng.	1,360	1,360	1,360	1,360	5,440
7.	<u>Workshops</u>	12,840	11,850	11,850		<u>36,640</u>

7.A	Transportation	800	750	750		2,300
7.B	Space Rental	700	600	600		2,000
7.C	Per diem	11,340	10,500	10,500		32,340
8.	Evaluation			2,000	6,000	8,000
9.	Contingency	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>40,000</u>
		<u>318,750</u>	<u>279,290</u>	<u>244,614</u>	<u>225,266</u>	<u>1,067,920</u>

BUDGET BREAKDOWN

B-3

2A-(2) EDUCATIONAL MATERIALS/MEDIA PRODUCTION EQUIPMENT BUDGET

		<u>Total:</u>
<u>2A-(2)b. Education/Media Minor Equipment (items under \$200 ea.)</u>		
2	playback quality portable cassette tape recorders, \$90 ea. Panasonic RZ 309AS or similar, with internal microphone	180
	graphic design equipment: drafting table w/lightbox; chair, drafting lamp (swivel, clamp base)	350
	graphic design tools (pens, colors, misc. tools, etc.)	350
40	Easel-style blackboards/bulletin boards @ \$25 ea.	1000
30	sets of food models (Nasco or similar)	500
2	projection screens (1 standing, 1 wall hanging)	150
1	equipment trolley/carrier with wheels	50
6	IBM selectric typing elements (various styles)	<u>120</u>
		<u>\$2700</u>
		<u>2700</u>

2A-(1)b. Education/Media Capital Equipment (over \$200/item)

1	reel-reel 1/2" tape deck, mono/stereo, Ampex ATR-700	1800
2	loudspeakers compatible with other equipment	200
1	audio cassette recording/playback desk	500
1	audiotape duplicator, IAV/Standard Sound	250
1	AM/FM tuner/amplifier	300
2	studio quality microphones	300
2	Bell & Howell 797-A Ringmaster sound slide projector with built in screen, carrycase, accessories @ \$600 ea.	1200
1	Automatic projection Tachistoscope, Lafayette 41010	500
1	Kodak Super-8mm camera w/zoom lens/carrycase	300
2	Kodak Ektagraphic Slide Projects AF3 w/remote controls, case, filmstrip adaptor, zoom lens, carrycase, access.	950
2	Educational media storage cabinets	900
1	35mm reflex camera with 50mm, 85mm, 135mm lens	600
1	portable 5KW 60 cycle 110v electrical generator/auto mount	3000
1	overhead projector, Bell & Howell 360KA w/cover, case, acces.	300
1	portable public address system with auto mount, speakers	700
2	recording quality cassette tape recorders with external microphones, case (Sony TC 142 or similar)	600
2	sound filmstrip projects, Dukane 28A3A w/multiple choice response, earphones, cover, carrycases.	850
4	Mobile audio-visual tables FSC 4A @ \$60 each	240

2A. OFFICE EQUIPMENT2/ 1)a. CAPITAL EQUIPMENT - OFFICE

		<u>TA</u>	<u>BON</u>	<u>TOTAL</u>
<u>For Technical Assistance Personnel:</u>				
2	double pedestal desk	700		
2	office chairs	200		
2	desk lamps	100		
1	IBM self-correcting Selectric 15" carriage dual pitch	950		
2	filing cabinets - 4 drawer w/lock	300		
2	6' open shelf bookcases	200		
1	6' worktable	130		
6	side chairs	480		
		<u>\$3,060</u>	<u>3,060</u>	<u>3,060</u>
<u>For BON Personnel</u>				
2	office desks (one with typing wing)	700		
2	office desk chairs	200		
2	desk lamps	100		
2	IBM Selectric typewriters, self-correcting 15"	1900		
2	4-drawer letter-size file cabinets with lock	300		
2	6' open-shelf bookcases	200		
2	6' x 24" deep locking equipment storage cabinets	500		
2	side chairs	200		
1	6' x 30" worktable	130		
	side chairs			
1	6' x 9' x 18" metal rack storage shelves	300		
1	office photo-copier (xerox-type)	2000		

2A(2)a.

MINOR EQUIPMENT: OFFICE

		<u>\$6530</u>	6,530	6,530
				\$ 9,590
<u>For Technical Assistance Personnel:</u>				
		220	220	
<u>For BON Personnel:</u>				
		480	480	
		<u>\$ 700</u>		<u>700</u>

2B. SUPPLIES

2B(1) <u>Office Supplies</u>		Totals:
For Technical Assistance Personnel	1800	
For BON Personnel:		
Office supplies, postage, freight @ \$120/mo.	5760	
Paper stock, repro masters for reproduction, @ \$75/month	3600	
	<u>\$11,160</u>	<u>\$11,160</u>
2B(2) <u>Educational Materials Production Supplies</u>		
1/4" magnetic recording tape, Scotch 5" #101 (600 reels x \$2)	1200	
30/60/120 min. cassette tapes (575)	1000	
35mm b&w film/color film rawstock, printing paper, darkroom supplies	2000	
1/4" tape/audio/slide, etc. editing supplies	800	
graphic design supplies/expendables (art, Letra- set, Letratone, inks, tips, etc.)	4000	
paper stock for repro/printing/covers	<u>10000</u>	
Sub-total:	<u>\$19,000</u>	<u>\$19,000</u>

2C. EDUCATIONAL AND MEDIA MATERIALS PRODUCTION/REPRODUCTION

SUMMARY

				<u>TOTAL</u>
1.	Report	500	100 pp. Guide to Nutrition Education	\$ 500
2.	Report	1000	25 pp. Content Priorities & Messages	250
3.	Report	500	100 pp. Nutrition Instruction Guide	500
4.	Report	5 sets of 200	20 pp. Workshop Reports	500
				<u>\$1,750</u>
				1,750
5.	Media	100	sets of 50 figures for flannelboards	600
6.	Media	2000	foldout posters for health agents, etc.	4400
7.	Media	25	30/60 second radio spot announcements	2500
8.	Media	20	15-minute radio programs/modules	10200
9.	Media	6000	5-part photo pamphlet	6000
10.	Media	20	instructional modules (booklets)	2000
11.	Media	5 sets	self-instructional sound-slide programs for health workers, community workers based on instructional modules/guides	7500
12.	Media	various	new production allocation for Years III, IV, plus publicity and promotional spots and materials for field trials	<u>16650</u>
				<u>\$49,850</u>
				<u>49,850</u>
<u>2C Sub-Total:</u>				<u>\$51,600</u>

2C. BREAKDOWN OF PRODUCTION BUDGETS:

<u>Cost Category</u>	<u>In-House Costs</u>	<u>Technical Services</u>	<u>Sub- Total</u>
1-4. Reports	<u>1500</u>	250	1750
5. Flannelboard figures	<u>550</u>	<u>50</u>	600
6. Foldout Posters:			
Design and pretesting	1000		
Original art/versions		300	
Technical layout		300	
Surface printing		2000	
Bonding, cutting, laminating		800	
Packaging		<u>200</u>	
	<u>1000</u>	<u>3400</u>	4400
7. Radio spots	<u>2000</u>	<u>500</u>	2500
8. Radio Programs:			
Research and script costs	3800		
Studio facilities: recording			
4 hrs x 20=80 hrs. @ \$20/hr		1600	
Editing/dubbing/transfer @ \$50/show		1000	
Transportation/per diem (2 people, 20 trips of 200 miles, 40 days per diem @ 20/day	800		
Announcer/talent fees & expenses @ \$150/program		3000	
	<u>\$4600</u>	<u>\$ 5600</u>	10200
9. Photo-pamphlets			
Design and pretesting	2000		
Technical preparation	1500		
Photography & Printing	600	100	
Printing		<u>1800</u>	
	<u>4100</u>	<u>1900</u>	6000
10-11. Self-Instructional Modules Instructional Modules	<u>9200</u>	<u>300</u>	9500
12. New Production	<u>16550</u>		<u>16550</u>
Sub-totals:	<u>\$ 39,600</u>	<u>\$12,000</u>	<u>\$51,600</u>

3 & 4. VEHICLES AND VEHICLE MAINTENANCE/INSURANCE

3.	<u>Vehicles:</u> 4-wheel drive all terrain 9 passenger carryalls, with airconditioning, CB radio, Chev. Suburban or Intl Harvester Travelall @ \$14,000 each,		\$42,000
4.	<u>Maintenance and Insurance:</u>		
	2 vehicles (purchased in Year I):		
	2 cars x 4 years = 8 car years @ \$2000/year (including tires and all repairs)	16,000	
	1 vehicle (purchased in Year II)		
	1 car x 3 years = 3 car-years @ \$2,000/year	<u>6,000</u>	
		<u>\$22,000</u>	<u>\$22,000</u>

5. TECHNICAL ASSISTANCE

<u>Category of Technical Assistance</u>	<u>Term</u>	<u>Rate</u>	<u>5A Long-term</u>	<u>5B. Short Term</u>	<u>5G Study Trips</u>	<u>5D Language Training</u>
Health Training Specialist	48 p/m ¹	\$7500 p/m	360,000			
Nutr. Ed. Technology Spec.	48 p/m	7500 p/m	360,000			
<u>Field Training</u>						
Public Health Nut. Rural Practicum Leader TA	4 p/w ²	750 p/w		3000		
Public Health Nut. Ed. Workshop Leader TA (local)	4 p/w	500 p/w		2000		
Public Health/Social Science Workshop Leader (local)	4 p/w	500 p/w		2000		
TA followup on workshop (local)	12/pw	500 p/w		6000		
<u>B. Media Utilization</u>						
Media Formative Evaluation TA	4 p/w	750 p/w		3000		
Media Management TA	4 p/w	750 p/w		3000		
Media Content & Message Design TA	4 p/w	750 p/w		3000		
TA participation in workshop followup	12 p/w	750p/w		<u>9000</u>		
A.B.	SUB-TOTALS:		<u>\$720,000</u>	<u>\$31,000</u>		

Creole Language Training:

8 weeks @ \$100/week = \$800
x two technical assts

1,600Study and Research Trips

16,200

Transportation for short term TAs
Supports Study & Research trips for long-term
TAs (8 trips, 7 days ea=56 days x \$50/day=\$2800;
12 trips, 7 days+84 days x 50= \$4200;
\$3200 for long-term TA transportation;
\$6000 for short-term TA transportation (12 trips).

6. TRAINING6A. PARTICIPANT TRAINING ABROAD (Puerto Rico)

(two years)

per year

3 round trips	500
books and research costs	500
tuition/room & board	8000
other expenses	<u>500</u>

\$ 9500/yr x 2 = \$19,000

6B. STUDY TOURS (to U.S., Latin American, England-France etc.)

a) training component

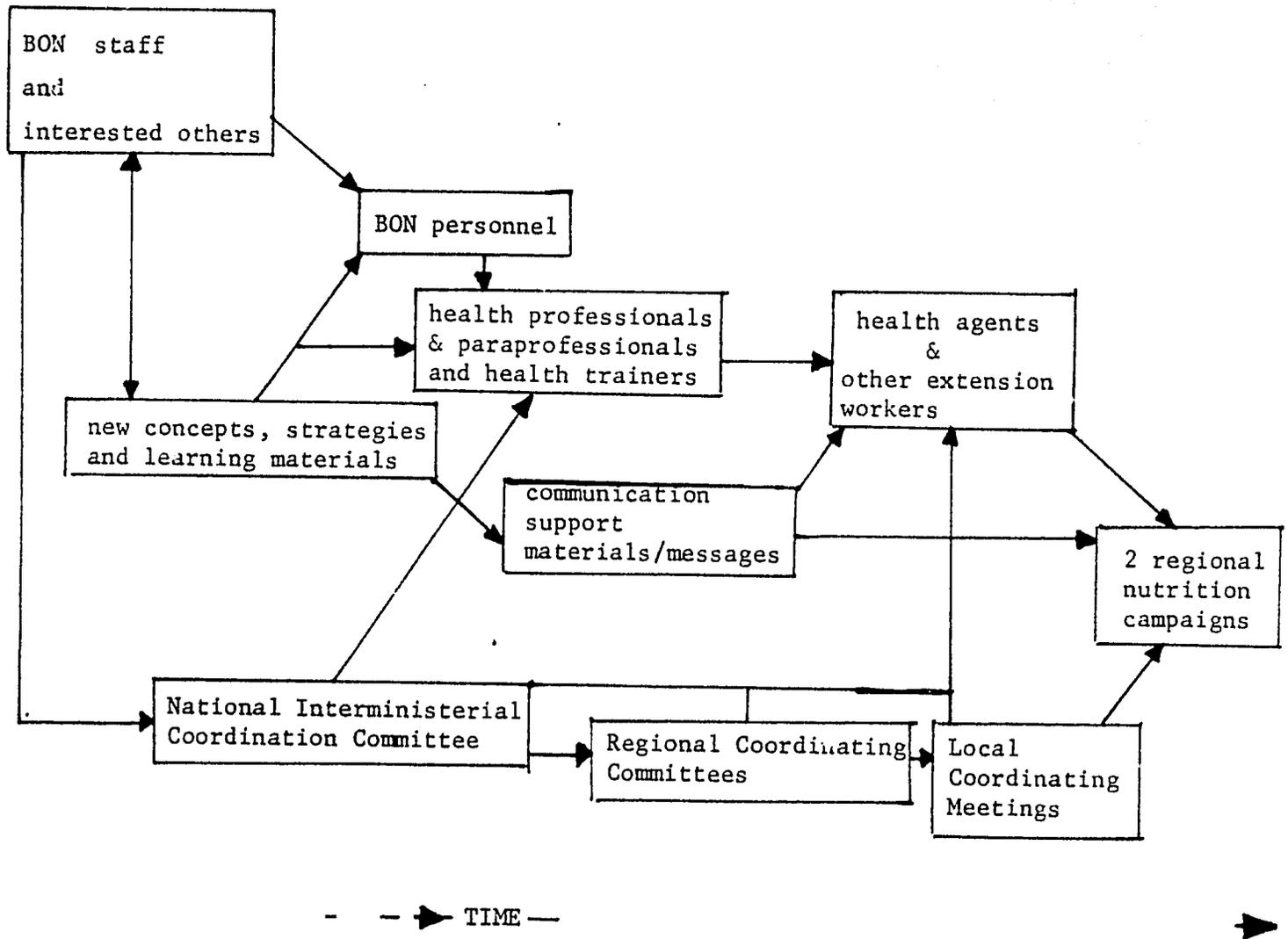
2 trips @ \$600 ea.	1200	
8 weeks per diem @ \$40/day	2240	
fees/miscell expenses	500	
local transportation	<u>400</u>	
	4900	4,900

b) media utilization component

4 trips @ \$600	2400	
8 weeks per diem @ \$40	2240	
fees/miscell expense	400	
local transportation	400	
	<u>\$5440</u>	5,440

\$ 29,340

FRAMEWORK FOR THE NUTRITION EDUCATION PROJECT IN HAITI



NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Program or Sector Goal: The broader objective to which this project contributes:</u></p> <p>To improve the nutritional status of the majority of the population, and to reduce the magnitude of malnutrition.</p>	<p><u>Measures of Goal Achievement:</u></p> <p>Reduction of mortality and morbidity from malnutrition, among the target population</p>	<p>Analysis of mortality and morbidity statistics for target population groups.</p>	<p><u>Assumptions for achieving goal targets:</u></p> <ul style="list-style-type: none"> a) - The Haitian economy will not substantially deteriorate with regard to inflation, unemployment, or real wage levels. b) - No major natural disasters will take place, affecting the cultivation and availability of foodstuffs and forcing GOH to alter its food and nutrition policy priorities. c) - The infrastructure and level of technology in Haiti are adequate to achievement of goal and purpose. d) - GOH and USAID are committed to expand the scope of nutrition-related activities in Haiti and to strengthen BON. e) - GOH will continue its efforts to foster intersectoral coordination and collaboration with regard to nutrition, health, population, and agriculture. f) - GOH continues to be amenable to the conduct of the project and its related aspects by U.S. contractors acting in conjunction with local agencies. g) - The project fits with the regionalization objectives of MOH.

NARRATIVE SUMMARY

OBJECTIVE VERIFIABLE INDICATORS

MEANS OF VERIFICATION

IMPORTANT ASSUMPTIONS

Project Purpose:

1. To strengthen the institutional capacity to design and conduct relevant and effective nutrition education.
2. To improve nutrition education and to expand its coverage of the (mainly rural) population of Haiti in order to modify the food consumption patterns in ways that improve the nutritional status of the majority of the population.

Conditions that will indicate purpose has been achieved. End of project status:

1. Technical and administrative capability of BON to design and implement nutrition education training for professionals and paraprofessionals in health and other sectors, and to design and implement effective nutrition education strategies will have been improved.
- 2.a. 80% of scheduled workshops will have been implemented on schedule.
- 2.b. The nutrition education of health personnel (either trainers or community workers) will have been improved.
- 2.c. The quality of old and new nutrition education support materials will have been improved.
- 2.d. The amount, frequency, and quality of nutrition education content in mass media (radio) programs will have been increased.
- 2.e. In at least one region a trial community-wide nutrition education program will have been implemented (see also Output 5).

1. Examination of records and reports.

See also the Means of Verification for the various Outputs.
- 2.a. Examination of project records comparing implementation objectives with actual execution.
- 2.b. Improvement measured by examination of supervision reports for health workers.
- 2.c. Professional judgment of technical assistants, other external professionals, and reactions of users.
- 2.e. See Means of Verification for Output 5.

Assumptions for achieving purpose:

The assumptions listed on page 1 apply to both the goal and purpose levels.

Outputs:	<u>Magnitude of outputs:</u>		<u>Assumptions for achieving Outputs:</u>
1. Training			
1.A. In-service participant training of BON staff in nutrition education methodology (nutrition education norms, standards) completed.	1.A. - 3 BON Section Chiefs, - up to 20 nurses and supervisors, - up to 20 aux. nurses and <u>monitrices</u> ,	1.A. Evaluation sessions at end of seminars, workshops, etc. Examination of records and reports.	h) - A sufficient number of COH ministries and other organizations is interested in cooperating with MOH and BON.
1.B. Training by BON of health agents and <u>monitrices</u> , through direct training and training of Mobile Health Training Teams completed.	1.B. - up to 20 persons (Mobile Training Teams), - up to 500 health agents and 200 nurse auxiliaries.	1.B. same	i) - The regionalization of MOH will proceed as scheduled.
1.C. Participant training abroad in Public Health Nutrition at the MPH/MA level completed.	1.C. 1 person	1.C. same	j) - Overlapping services with MOH will be effectively integrated.
1.D. Study tours and participation in international conferences, dealing with rural nutrition in LDCs and nutrition education, completed.	1.D. Up to 4 persons	1.D. Examination of records, reports, presentations and publications.	
2. <u>Nutritional strategy and message concepts:</u>			
2.A. Nutrition education norms defined and reported in "Nutrition Instruction Guide".	2.A. 500 Copies of Nutrition Instruction Guide.	2.A. Examination of records and reports.	
2.B. Nutrition education program priorities selected, list prepared and distributed (Year I).	2.B. 1000 copies of booklet containing list of program content priorities (with themes and background research) distributed to BON personnel, MOH personnel, etc.	2.B. same	

NARRATIVE SUMMARY

OBJECTIVELY VERIFIABLE INDICATORS

MEANS OF VERIFICATION

IMPORTANT ASSUMPTIONS

Outputs (continued):

Magnitude of outputs:

Assumptions for achieving outputs:

3. Educational materials:

3.A. Current nutrition education materials pretested and revised.

3.B. New educational support materials designed, pretested, produced, and distributed.

3.A. - 500 copies of Improved Nutrition Education Guide.
 - 500 improved flipcharts.
 - 30 nutrition education radio programs for in-school use, per year.

3.B. - 2000 copies of foldout posters for health agents.
 - 25 nutrition education radio spots.
 - 20 nutrition education radio programs and/or cassettes.
 - 5 photopamphlets for last three grades of primary school (6000 c.)

3.A. Examination of records and reports.

3.B. same

4. Media utilization planning:

4.A. Four-year plan for instructional program design, message selection, and testing, audience and channel selection, visual aids, and media program production.

4.B. Radio ownership, access, and exposure study conducted.

4.C. Pictorial literacy study conducted.

4.D. Nutrition Education Content Analysis conducted.

4.A. - list of nutrition education content priorities.
 - list of key audiences and appropriate channels.

4.B. 20 copies of report.

4.C. 20 copies of report.

4.D. Internal report.

4.A. Examination of records and reports.

4.B. Examination of report.

4.C. Examination of report.

Outputs (continued):5. Trial demonstration in two regions:

- 5.A. National Nutrition Education Coordinating Committee with Executive Secretariat established.
- 5.B. Nutrition education coordination meetings of regional administrators of various agencies interested in nutrition.
- 5.C. Nutrition education coordination meetings of community workers of various agencies interested in nutrition.
- 5.D. Nutrition education content, methods and communication support (in short: nutrition education strategies) introduced to community workers in two selected regions.
- 5.E. Nutrition campaigns effectively conducted in two selected regions.

Magnitude of outputs:

- 5.A. 1 interministerial or inter-agency committee.
- 5.B. At least four regional meetings.
- 5.C. At least 10 local meetings.
- 5.D. See: Objectively Verifiable Indicators for outputs 1, 2, 3, 4, 5.A.B.C.
- 5.E. Up to 10,000 people effectively reached with appropriate nutrition information
- Effective campaign methodology established and reported

- 5.A. Examination of meeting reports.
- 5.B. same
- 5.C. same
- 5.D. See: Means of Verification for outputs 1, 2, 3, 4, 5.A.B.C.
5. small scale survey
amination of report.

Assumptions for achieving outputs:

- k) The MOH agrees to the selection of two health regions for the trial demonstration in project phase II.
- l) The two selected regions are sufficiently reorganized and functioning.

NARRATIVE SUMMARY

OBJECTIVELY VERIFIABLE INDICATORS

MEANS OF VERIFICATION

IMPORTANT ASSUMPTIONS

Inputs:

1. Funding for outside Technical Assistance.
2. Funding for professional/consulting services.
3. Funding for workshops.
4. Funding for materials production.
5. Funding for nutrition campaigns.
6. Funding for commodities, vehicles, office supplies and office space.
7. Funding for counterparts and support personnel.

Implementation target (Type and Quantity):

1. For Technical Assistance \$ _____ from A.I.D.
2. For professional/consulting services \$ _____ from A.I.D.
3. For Workshops \$ _____ from A.I.D.
4. For materials production \$ _____ from A.I.D.
5. For nutrition campaigns \$ _____ from A.I.D.
6. For commodities, vehicles, office supplies, office space \$ _____ from A.I.D.
7. For counterparts and support personnel \$ _____ from COH.

USAID records.

COH and BON records.

Assumptions for providing inputs:

Appropriate outside technical assistant of the type and number required can be obtained

Qualified and competent counterparts of the type and number required are available and are designated by COH/BON.

IV. B IMPLEMENTATION PLAN (The numbers of each line refer to the Outputs in the Logical Framework)	YEAR I				YEAR II				YEAR III				YEAR IV			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.A. Intensive field experience		■														
1.A. Public Health Training Worksh.			■													
1.A. Rural Field Training						■										
1.B. Training of Mobile Trainers								■								
3.A. Testing and Revision of Mater. and Radio Programs	■	■	■													
4.A. Plan for Communication Training and Production	■								■							
Communication Workshops with Related Products:			■		■											
2.A. Educational Strategies			■													
3.B. Foldout Posters for Health Ag.						■	■	■	■	■	■					
2B/3B Manuals for Health Agents					■	■	■	■								
4.B. Radio Study				■	■			■								
4.C. Pictorial Literacy Study				■	■			■								
3.B. Radio Spots										■	■	■				
3.B. Radio Programs										■	■	■				
3.B. Photopamphlets											■	■				
5.A. National Interim. Coordinating Committee		■				■				■	■	■		■	■	■
5.B. Regional Coordin. Meetings										■	■	■		■	■	■
5.C/D. Local Coordin. Meetings										■	■	■		■	■	■
3.B. Photopamphlets							■	■								■
5.E. Nutrition Campaigns											■	■			■	■