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Report of the
LATIN AMERICAN SEMINAR ON THE
PLANNING AND EVALUATION OF
APPLIED NUTRITION PROGRAMS

POPAYAN, COLOMBIA 10-17 NOVEMBER 1966



PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau - Regional Office of the
WORLD HEALTH ORGANIZATION



Report of the LATIN AMERICAN SEMINAR ON THE

PLANNING AND EVALUATION OF APPLIED NUTRITION PROGRAMS

HELD AT POPAYAN, COLOMBIA, 10-17 NOVEMBER 1966,

UNDER THE AUSPICES OF PAHO/WHO, FAO, AND THE GOVERNMENT OF COLOMBIA



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INTRODUCTION

A growing number of Applied Nutrition Programs are being undertaken throughout the world. Because of the interest shown by countries that have not yet introduced them, the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) have participated jointly in a series of activities designed to improve both the planning and the evaluation of these programs.

The wide experience gained by the many countries that have conducted the programs indicates that their major weaknesses are associated primarily with the planning and evaluation stages.

FAO and WHO, through the joint effort of their secretariats and with the technical assistance of special consultants, have made a series of studies in the various regions of the world; convened a meeting of experts of international standing in the planning and evaluation of social programs (Rome, January 1965); and organized seminars in Africa, in the Far East, and in Latin America.

The purpose of the present Seminar, sponsored by PAHO/WHO and FAO, was to examine the present procedures for the planning and evaluation of Applied Nutrition Programs in Latin America and the Caribbean area and to set forth the principles and methods that could best be adopted in this region in the future. The Seminar, moreover, provided a focal point for the interest that has been shown in Applied Nutrition Programs by the participating countries.

The Government of Colombia gave the Seminar every assistance and generously offered its hospitality. The existence of a well-organized and active National Institute of Nutrition greatly facilitated the preparation and conduct of the meeting. The activities in Colombia of the Integrated Program of Applied Nutrition (PINA) also played a positive role in the technical achievements of the meeting.

The Seminar was held at Popayan from 10 to 17 November 1966, in an atmosphere that was conducive to work and reflection. The cooperation offered by the authorities of the Department of Cauca and of the City of Popayan contributed much to the achievement of the results described in the following pages. Special reference is also made to the interest shown by the other participating countries, which sent to the Seminar highly qualified and experienced officials responsible for the development of the Applied Nutrition Programs.

The United Nations and its specialized agencies—UNICEF, UNESCO, and ILO--and the Institute of Nutrition of Central America and Panama (INCAP) were also represented at the Seminar, thus demonstrating their interest in these programs.

The Seminar adopted, as the basis for its discussions, the Report of the Joint FAO/WHO Technical Meeting on Methods of Planning and Evaluation in Applied Nutrition Programs (Rome, January 1965).* Since the general and theoretical aspects of the subject had already been fully examined in that document, it was decided that the Seminar would concentrate its attention on practical questions.

The present report clearly demonstrates the efforts made by the Seminar to provide to officials responsible for Applied Nutrition Programs, nutrition and food experts, and also the Governments of the region, an instrument that might serve as a practical basis for the planning and implementation of these programs.

In a meeting of such short duration, it was not possible to make an exhaustive review of so vast and extensive a subject and submit a definitive report on all the issues raised. The participants recognized that their discussions represented merely a first step toward the formulation of a methodology for planning and evaluating

^{*} Wld Hlth Org. techn. Rep. Ser. (1966) 340.

programs of this kind. The purpose of this report is to help provide a better understanding of the subject and help improve the programs by placing them on a more rational and efficient basis.

The Seminar examined the following agenda items:

- Origin and conduct of Applied Nutrition Programs in the region.
- Basic information required for the planning of Applied Nutrition Programs.
- Planning and organization of Applied Nutrition Programs.
- 4. Evaluation of Applied Nutrition Programs.
- Basic factors to be considered for the evaluation of Applied Nutrition Programs.

The agenda items were first presented at plenary sessions and subsequently discussed simultaneously by four working parties. The chairmen and rapporteurs of the working groups assembled the conclusions on each item in a single document, which was submitted for approval to a subsequent plenary session.

To facilitate the work of the Seminar, agreement was reached on a number of definitions of the terms most widely used in the discussions; an alphabetical list of these terms appears in Annex I to this report.

CHAPTER I

DEFINITION, PHILOSOPHY, AND IMPORTANCE OF APPLIED NUTRITION PROGRAMS

An Applied Mutrition Program may be defined as follows: "A comprehensive type of interrelated educational activity undertaken by agricultural, health, and educational authorities and other interested agencies, with the objective of improving the nutritional status of local populations, particularly of mothers and

children in rural areas, through raising standards of production, distribution, and consumption of food; the principal characteristics of such activities are the coordination of the efforts of the various bodies and institutions and the active participation of the social groups affected." The Seminar accepted the definition but wished to emphasize certain concepts which it regarded as fundamental to these programs, and to indicate a special line of approach to the process of planning and evaluation.

The basic principle in these activities is coordination at all levels. The Applied Nutrition Program represents, in point of fact, an intensive effort on the part of all participants to achieve a common objective through a uniform procedure for planning, development, and evaluation.

A second principle, also of fundamental importance, is the adaptation of the program to the realities of the situation; an Applied Nutrition Program is initiated and established as a means of identifying and solving the nutrition and food problems of a given country or of certain areas of that country. Its activities should always be planned and developed in the light of the cultural, social, and economic characteristics of the population and of the special ecological conditions obtaining in each case.

A third fundamental principle of Applied Nutrition Programs is the emphasis on education, for the purpose of changing the knowledge, habits, and attitudes of the population through securing its full participation in the social and economic development of the country. This educational process is designed to achieve its maximum impact on the community and the family.

The fourth principle is the approach in depth to the social group, whether it be the community or the family, employing any available means in its efforts to reach each member of the group.

The basic principle underlying all of these programs is that they are conducted through existing governmental

structures at the national, regional, and local levels and that they consistently seek to avoid the creation of additional agencies with parallel functions. To this end, each official agency is expected to include activities in the field of applied nutrition as part of the regular functions and to correlate these with activities undertaken by other participating agencies.

The development of applied nutrition on a nationwide scale is an objective that will contribute to improving the nutritional status and food standards of the population. The resulting increase in work productivity will be reflected in the pace of economic development.

Finally, it should be emphasized that, although technical and financial aid from international agencies has given an initial impetus to Applied Nutrition Programs, this assistance should be regarded as a temporary measure and the continuation and expansion of these programs on a national scale should be the responsibility of each Government.

CHAPTER II

PRESENT STATUS OF APPLIED NUTRITION PROGRAMS IN THE AMERICAS

Item 1

In December 1965 a group of distinguished administrators in health, education, and agriculture who were familiar with Applied Nutrition Programs in the Hemisphere, met in Washington, D.C., under the auspices of PAHO/WHO and FAO. The purpose of the meeting was to formulate a tentative guide to be used by countries in the evaluation of their programs.

The Evaluation Guide that evolved from this meeting (see Chapter VI) was distributed, through the Zone Nutrition Advisers of PAHO, to the 15 countries in which Applied Nutrition Programs were operating. Eleven of these countries completed the evaluation of their

programs and submitted their reports for tabulation, prior to the Seminar.

This Chapter summarizes the most significant information provided by the ll countries. The summary is limited exclusively to the information received from the different countries and in no instance includes either comments or additional data from the international organizations.

The information is summarized without regard to the stage of development of the projects. Nevertheless, for the purpose of analysis, the countries were divided into three groups according to the date of initiation of the program.

The analysis presented in this paper includes:

- GROUP I. Four programs recently organized (approximately one to two years)
- GROUP II. Four programs that have been in operation from two to four years.
- GROUP III. Three programs that have been in operation for more than four years.

The information submitted was evidence of the great amount of time and effort invested by all who participated in the evaluation. Some countries expressed regret at their inability to analyze some of the factors which prevented them from achieving the desired objectives or for which information was not available.

Prior to the initiation of the Applied Nutrition Programs, the existing agencies and organizations had developed numerous nutrition activities, of greater or lesser importance for improving the nutrition situation in the various countries, some of them coordinated, others not. The Applied Nutrition Programs have strengthened some of these activities. In other countries new projects have been established. This is a major contribution.

The preparation of the information called for in the Evaluation Guide required coordination on the part of every agency involved in compiling the General Information Section. In some instances, individual reports were made by each of the three agencies. In some country reports, the information provided in the General Information Section about a particular aspect of the program is different from that which appears in later sections covering the same subject. Part of the difficulty encountered in reporting was due to the fact that the health, education, and agricultural portions of the Evaluation Guide were not prepared in the same format.

Sometimes the country report stated that it was not possible to supply the data because the information was the responsibility of another agency or another section of the same Ministry and therefore could not be obtained.

In some cases, there was very little coordination evident at the national level, but much more at the local level, and there was no indication that the passage of time would bring about better coordination. Thus, new and greater effort will be required in the future, not merely for the continuation of these programs, but for improved coordination.

The results of the analysis are as follows:

A. Program's Support

It was clear that the scope and progress of the programs depended upon the interest, support, and cooperation received from each one of the Ministries involved in the programs. It was useful, therefore, to examine their scope and progress in relation to the population included and the funds assigned.

The interest and backing of the majority of the Governments in the different countries had increased when measured in terms of the number of extensions of the program, population and area covered, funds assigned, and facilities available. The 150 sectors, with a population of 516,535 inhabitants, included in the

initial projects, had been increased to 576 sectors with a population of 3,974,439 inhabitants. Six countries had extended their programs by means of new agreements. However, it is important to point out that no country supplied information about the criteria used for program extension.

The Governments had increased their support in terms of funds assigned, although some countries reported that they did not have corresponding data from all the Ministries. The budgets reported for nutrition activities varied from:

\$ 19,600 to \$133,900 (Ministry of Agriculture) \$ 43,400 to \$220,000 (Ministry of Education)

\$120,000 to \$338,798 (Ministry of Health)*

Of the three agencies, the Ministry of Health contributed the greatest amount to nutrition programs in the countries. Nevertheless, in the Ministries of Agriculture and Education the total amount of the funds assigned to nutrition was utilized for the Applied Nutrition Programs, whereas in the Ministries of Health only 10-35 per cent, approximately, of the total funds were assigned specifically to the Applied Nutrition Programs. The remainder of the funds were used for other nutrition activities in the country.

Other organizations, in addition to the Ministries of Agriculture, Health, and Education, have participated in and supported an Applied Nutrition Program. For example, in Colombia the Institute of Nutrition, an autonomous organization, receives funds at the national and departamental levels for operating the Applied Nutrition Programs, and includes activities in all phases of the program--agriculture, education, and health.

One country reported budget support at the local level. The national contributions to the Applied Nutrition Programs are from three to 50 times greater than the international funds. In some instances the amount

^{*}This includes some funds assigned to INCAP.

of funds reported showed an increase over those budgeted at the beginning of the program.

In addition to providing funds, Ministries supplied important services and provided facilities and equipment, which contributed to the success of the program. Among the services supplied were training, supervision, consultation, and the distribution of equipment, at the national level as well as the local level.

B. Program Direction

1. Structure of the Program

There are great variations in the organizational structures under which the programs operate. These vary from the utilization of the existing structure in the Ministries to the creation of new structures within and outside the Ministries.

In eight countries the Ministry of Health had a Nutrition Section prior to the initiation of the Applied Nutrition Programs. The responsibilities of these sections have been extended to include the Applied Nutrition Programs, but personnel is limited. In these eight countries a total of 12 physicians, 11 nutritionists, and 21 other professional personnel are working in the Nutrition Sections. Not all of the personnel work in Applied Nutrition Programs, however.

Two countries reported they had an Institute of Nutrition, but in one of these countries no Nutrition Section existed in the Ministry of Health. The two Institutes reported a total of 16 physicians and 24 nutritionists working in the program.

No information was obtained about the total number of personnel working in the programs of the Ministries of Agriculture and Education.

In agriculture, the majority of the Applied Nutrition Programs are incorporated into the regular operation of the Ministry. Four countries had a special section for the Applied Nutrition Programs. Three had authority for developing the program and four had suitable resources.

In the education sector, the program was reported as having been developed mainly in the primary schools.

All of the educational programs acknowledged the cooperation of the agricultural and health agencies to the programs.

2. Information was requested on the procedures for achieving coordination and putting into practice the philosophy that enables programs to become an integral part of the existing Ministries.

That coordination and integration were not achieved to the extent desired was confirmed by the fact that:

- a) There are countries that do not include the three Ministries in the operating organogram at the national, regional, and state levels.
- b) In some countries copies of the Plan of Operations for the programs are not found in all of the participating Ministries.
- 3. Only one half of the countries have a National Nutrition Committee with representation from the different Ministries and organizations of the country, and with responsibility for helping to establish a national food and nutrition policy.

Some countries have set up Coordinating Committees for the Applied Nutrition Programs with functions at the national, regional, and local levels. These assume the responsibility for the execution of the program in an integrated manner. There are countries, however, in which Coordinating Committees have not been established or, if they exist, do not always function effectively.

In the majority of cases, the coordinator or president of the Nutrition Committee and of the Coordinating Committee is a special official. One country reports a rotating presidency.

C. Essential Requirements

The following requirements are listed as indispensable in the development of an Applied Nutrition Program: personnel, training, advisory services, diagnosis,

and identification of the problem, a written plan of action, facilities and equipment.

1. Personnel

All the countries recognized the importance of having a sufficient number of well-trained professional and auxiliary personnel, if their objectives were to be achieved.

Trained personnel in nutrition, occupying key positions of responsibility, help considerably in moving the program in the desired direction.

All countries had an insufficient number of personnel.

It was gratifying to note, however, that in replying to the question which asked for the enumeration of the greatest needs in order of priority, no one assigned the highest priority to money; all assigned it to personnel.

The data concerning available personnel were very limited. In some reports there was no agreement between the information provided in the General Information Section and that in the special sections on health, education, and agriculture.

From the information supplied, nevertheless, it can be concluded that in addition to the fact that there were too few personnel, increases in the number of trained personnel were very small and did not necessarily occur in the areas of greatest need.

Auxiliary personnel has increased through the years, but professional personnel responsible for direction and supervision has remained the same and is insufficient.

One indicator of the growth of a program is an increase in the number of personnel with better professional qualifications.

All the countries reported they had trained professional personnel to participate in the program. Training was provided principally during the first two years of the program's existence. The training period varied from three months to two and one-half years, the average duration being 7-12 months.

2. Training

The total number of professional personnel receiving long-term training for this program was as follows:

Agriculture: 4 agronomists

l veterinarian

3 nutritionists

2 nutrition auxiliaries

l dietitian

l home extension auxiliary

Education: 13 teachers

1 economist

2 nutrition educators

Health: 21 physicians

ll nutritionists

l dietitian

l audiovisual technician

1 biochemist

1 nurse

A problem of major concern to the countries is that the persons trained for the program cannot be retained. The difficulty is attributed in part to:

- a) The fact that the trained personnel are not assigned to work in the area of their specialization upon the completion of their training.
- b) The poor working conditions, which provide no motivation for personnel to remain.
- c) The lack of a specific program plan and a plan of activities at the beginning of the program.

which has resulted in inaccurate identification of personnel really needed.

d) The confusion which exists in relation to the objectives, methods, and operation of the program.

In addition to the training of long duration, training of short duration in various subjects was given to both professional and auxiliary personnel in 11 countries. Information on short-term training is incomplete but that which was provided indicates that the training of short-term duration was offered to:

Health

Trained personnel	Number of persons trained	Number in service
Physicians Dietitians and	43	20
nutritionists	5	2
Nurses	91	-
Nutrition auxiliaries	4	3
Nurse auxiliaries	1,266	- ,
Sanitarians	20	11
Health educators	50	_
Social workers	64	_

Agriculture

Areas of training that were offered	Number of persons trained
Food and nutrition Fruit culture Horticulture Small animals Home economics Social development	1,148 655 2,088 755 1,759 1,460

Education

Subject matter in which training was offered	Number of persons trained
Health Nutrition Horticulture Animal breeding Home economics Social development Methodology Supervision Veterinary medicine	1,369 3,449 2,286 1,627 1,527 1,505 2,274 2,274

The effectiveness of training was rarely evaluated. When it was evaluated, the reports of the results were inadequate.

Other opportunities for professional personnel, such as travel or loans, are very limited.

3. Advisory Services

Of the 11 countries, 10 reported that they received international assistance from FAO, PAHO/WHO, and UNICEF. This assistance was provided by 43 experts who served for periods ranging from one week to six and one half years.

Four countries reported that they received help from INCAP and also from other organizations (UNESCO, IIO, UN/TA).

The majority of the countries considered that international assistance was insufficient in terms of available experts, equipment, and funds provided. There was an unanimous expression of opinion that thus far the assistance has been neither continuous nor of sufficient intensity.

In only one document was information supplied about agricultural counterparts. Six countries reported that national counterparts were assigned to the international experts in other fields.

4. Diagnosis and Identification of the Problem

One area where obvious deficiencies existed was in basic information for diagnosing and evaluating the problems.

Most of the countries used the statistics they already had available, although these were limited. Initially, most countries did not have data available on nutritional status, food production, distribution or consumption. Nevertheless, the situation has improved considerably and now some of this type of information is available.

It is recognized that for a more precise diagnosis, information about the specific problems was lacking, especially at the local level.

The majority of the countries presented evidence of having diagnosed some of the problems as a basis for the structure of the program.

2 .

Protein malnutrition accompanied or not by calorie malnutrition is considered to be the principal health problem in most of the countries, and a primary factor in all of them.

Nutritional anemia and goiter are considered second in importance, followed by deficiencies in vitamin A and riboflavin and a high incidence of dental caries.

The identification of these problems can serve as a basis for planning the programs in health and education.

Parasitoses and other aspects related to environmental health were more clearly identified than specific nutrition problems in the school health program.

There was no evidence that the agricultural aspects of the program were planned on the basis of the nutrition problems diagnosed from the health view point.

Lack of land, credit, and understanding of agricultural techniques, inadequate marketing facilities, and poor food habits were the principal problems reported. With reference to the school garden program, inadequate amounts of water and lack of equipment and materials were cited.

Very little information on other related factors was offered.

The majority of countries considered the attitude of the people to be a very important factor; cultural factors and the low educational level of the population were next in order of importance. Each country assigned a different priority to the cultural factor.

5. Plan of Action

There were some programs without a plan of action at the national level. The direction of the programs and the objectives achieved toward the solution of the problems were reported in general terms.

An analysis of the numerous activities cited was made primarily on the basis on which priorities were assigned to each activity.

The health sector assigned first priority to the training of personnel, followed by education of the mothers. Centers of recuperation and aspects of sanitation and food supplementation programs were next in order of importance.

In agriculture, the major emphasis was on gardens, nutrition courses, training of personnel, animal breeding, and pilot demonstration projects.

The education sector considered the teaching of nutrition, school feeding programs, school gardens, animal breeding, training of personnel, and teaching of home

economics as their principal activities. It was suggested by several countries that the various methods used to carry out these activities needed to be revised.

There was evidence of a considerable extension of the types of activities included in the programs. Initially, the activities consisted for the most part of school gardens and other instructional programs in the schools. Now it appears that some of these have been replaced by other activities which are considered more important.

It should be pointed out that school garden projects were in existence in many of these countries before the introduction of Applied Nutrition Programs, but the number of schools that include this activity has increased.

The animal projects can be considered a direct result of the Applied Nutrition Programs, in the majority of the countries.

It was recognized that the activities could not be considered an end in themselves, but only a means of achieving the desired objective.

6. Supplies and Equipment

These facilities included, among other things, the maintenance of vehicles and the provision of gasoline, housing, vitamins and minerals, food and land, and means of communication.

The equipment provided primarily by the Ministries included vehicles, laboratory equipment for demonstrations of food, and projectors.

There is an insufficient amount of all types of equipment, but the greatest deficiency appears to be in audiovisual equipment. At times there is either no equipment of this type available or it may be found only at the national level.

D. Significant Comments

1. There is a great need for more planning in the programs, including a better understanding of the philosophy and objectives of the programs and the methods of developing a plan of action.

Apparently, the philosophy of the program was not well understood by all who participated in the evaluation, especially in reference to the health and education aspects.

Some merely enumerated activities. The majority made no reference to interministerial coordination, and even less reference to the need for making the program an integral part of the respective ministerial services.

There appeared to be no correlation between the length of time the program had been in operation and a good understanding of planning.

There was evidence of confusion about long-term and short-term objectives, but in general these were better defined in the more recent programs.

Furthermore, there appeared to be uncertainty with respect to identification of objectives, which were very broad.

2. The public in general and the officials in particular need to be kept informed of the progress and development of the program, if their support and participation are to be obtained.

Very little information is given to the officials and the public. The newer programs report greater efforts in this respect, but they recognize that even these are limited.

All countries reported that information to the public is infrequent and limited. Use of the press, radio, movies, and bulletins is mentioned more frequently than other means of communications.

More than half the countries reported that they do not use any of these methods for providing the public with an understanding of the program, while others indicated they are used occasionally but always to a more limited extent at the local level than at the national level.

Meetings and visits are also used as a means of reporting to the public. The frequency and extent of such reporting was not indicated.

3. The community support achieved and also the cooperation obtained are an indication of the extent to which the program has succeeded in securing family participation.

Community and voluntary agencies were seldom used. In those instances where they were used, no mention was made of their particular contribution.

The countries recognized that the number of community leaders is insufficient, but few reported training of leaders.

Schools reported limited participation by young people, parents, and others in the community. Some voluntary assistance was used in providing resources, aiding in courses, lending equipment, and helping to construct facilities.

4. The preparation of informational material was very limited, as were the methods of communication. As to the small amount of visual material prepared, no one reported the topics included, the quantity or date of preparation, or its effectiveness. Naturally, the more recently initiated programs had prepared less material, and some had not prepared any.

The most commonly reported type of material used were manuals, charts, pamphlets, and leaflets. Little use was made of the press, radio, and television and in only one instance were these means used with regular frequency.

5. Supervision of the programs was extremely limited. Some programs which had been operating for some time made no mention of supervision; others reported there was no supervision.

The major supervisory activity was in the educational program, but little information was provided about the kind and amount of training the supervisor received in nutrition and how many schools each supervisor had under his direction.

- 6. Greater emphasis is needed on the development of the activities through mother and child clinics and mothers' clubs.
- 7. Very few legal measures have been adopted that would assist and strengthen the development of the program. Few countries reported that they had a sanitary code, a food code, or legislation on the enrichment of cereals or iodization of salt, all of which are important to the progress of the program.
- 8. Nutrition is taught mainly as a part of health studies in the primary schools. The content is determined in most instances by the Ministry of Education.

Although a few schools offer practical experiences, none have even minimal laboratory facilities. There is some effort to extend the teaching to other levels and to the community.

9. In the great majority of cases, there was no adequate system for reporting the program's progress, even at the national level.

There was little information with respect to the maintenance of records and other data that could be used either in evaluation or in future planning.

Not all of the Nutrition Committees prepared annual reports, even at the national level.

10. All countries mentioned the lack of economic resources of the family as a principal problem, but

little was mentioned about efforts to find the solution of the problem. An increase in individual incomes will bring about improvement in the health of the people, but special programs will be required to effect major economic changes.

E. Indices for Evaluation

There are numerous indicators that show the degree of attention given to certain identifiable factors, and to the methods used.

However, the task of selecting those indices and criteria specifically applicable to the Applied Nutrition Program is complex and sometimes very difficult to carry out.

It is possible to obtain information about various criteria that can be used in measuring effort or activities and also others for evaluating the results in terms of diminution of the problems and change in the determining factors.

Some countries (including those with new programs) supplied no information about the evaluation or use of criteria for evaluation.

F. Measurement of Activities

Criteria which were listed as being used for measuring effort or activities were: training of personnel, preparation of educational material, participation in different activities (clinic, garden projects, clubs, food programs), percentage of the population served, amount of food and seeds distributed or purchased, increase in food production and in information offered to the public.

As was to be expected, emphasis was placed on measurement in terms of activities because of the short period of time during which these programs have been in operation. It is recognized, however, that these measurements are not sufficiently precise, and that measurements over a longer period of time will need to

examine more carefully the results obtained. Although some countries have had programs for a longer period of time than others, they have not yet initiated procedures for measuring changes that have occurred. Others recognized the need for measurements, but indicated they did not possess sufficient basic data.

Few countries had evaluated the methods, but where this had been done, it was reported to have been very helpful in improving the methodology.

G. Measurement of Change

With respect to criteria selected for evaluating results involving change, either directly or indirectly, it should be recognized that changes related to food practices require a long period of time.

Apparently, half of the countries had not used any criteria for measuring results. Those that had selected criteria mentioned more frequently: mortality statistics, changes in nutritional status, admissions to hospitals for causes related to nutrition, changes in food production and consumption of food, and requests for service.

The methods and procedures most frequently used to obtain information as a basis for evaluating achievements and results were: analysis of available statistics, visits, records and reports, observations and changes in attitudes and practices, training of personnel, and number of people served.

It is worth mentioning that some countries did not have essential data, at the beginning of the program, which could be used as a basis for evaluation, but since more data are now available they will be used in future evaluations.

H. Recommendations

Recomendations were very few in number; in most instances there were none, but some of those offered were both important and interesting.

A few countries were satisfied with their achievement, but others were not because "there is still much to be done."

The following recommendations for future evaluations and suggestions for the development of the program were presented:

- a) Increase activities in supervision, evaluation, and planning at all levels, and provide advisory services.
- b) Establish more realistic objectives and goals.
- c) Promote the use of direct and indirect indicators, including those factors other than nutrition which influence the attainment of objectives.
- d) Obtain more support from the government.
- e) Increase the active participation of all the coordinating agencies.
- f) Reorganize coordinating committees and make them more functional.
- g) Place more emphasis on increasing the number of personnel and assure retention of those trained.
- h) Provide more nutrition information to students of medicine; improve the preparation of nutritionists and the teaching of nutrition in schools of nursing.
- Obtain the necessary resources for conducting the programs.
- j) Provide more help in developing suitable methods and techniques for conducting the programs and preparing reports.

- k) Increase the participation of the home economist in the program.
- 1) Give the public more information on the program and its achievements.
- m) Increase the number of educational programs for mothers.
- n) Improve the feeding programs.
- o) Show appreciation to those achieving success.
- p) Establish small industries.

I. Conclusions

From the information obtained it is evident that many benefits were derived from testing the evaluation documents. Although some countries reported a lack of information, others were made aware of the growth in the programs, the development of activities and methods, and the extent of their achievements. This experience has served and will continue to serve as a basis for reorientation, modification, and adjustment of plans and methods.

There was a marked advance in the scope of the programs and in the national resources available, as well as in the specific activities carried out.

Some programs have been successful in bringing about improvements and reducing the extent of the nutrition problem. What is required is the establishment of criteria that will make possible accurate measurements of these changes.

If the experience gained in the use of this Evaluation Guide and some of the resulting recommendations and suggestions can be utilized in future planning, greater success in the development of the Applied Nutrition Programs can be expected.

CHAPTER III

APPLIED NUTRITION PROGRAMS AT THE LOCAL LEVEL

Item 2

Finally, the Seminar proposed a list of basic information which it considered necessary in order to ensure practical planning of the Applied Nutrition Programs.

This information can be obtained at the local level without undertaking costly and difficult studies and, in general, without the need for specialized personnel.

The information collected at the local level will complement that which exists at the regional and national levels.

For uniformity, it is considered advisable that all of the participants in the Applied Nutrition Program become involved in the collection of the data and in the planning of the program at each corresponding level.

The basic data compiled will correspond to the specific sectors of the program. The information will serve, primarily, to diagnose the problem and the situation, to determine the available resources, and then to define the objectives of the program, both general and specific. It will provide also an understanding of the environment in which the project is to

be initiated, and serve to identify the obvious cultural, social and economic characteristics, as well as specific ecological factors, thus making possible an adaptation of the educational methods and content. Finally, it will be noted that much of the data sought as a basis for initiating the program are also potential indicators of change and can therefore be utilized as indices for evaluation. In fact, all of the baseline data that are to be used for evaluation purposes can be collected at the same time as the basic data, before the program is initiated.

As is evident, information considered essential for planning the program is classified under general data and specific data for each sector of the program. In addition, within each sector, the information is divided into a report of the situation, resources, and activities, respectively.

The Seminar was of the opinion that this classification is of great importance. As can be seen in Chapter IV of this report, the plans are made by sectors; within each sector the situation, resources, and activities are the elements to be considered when establishing objectives and planning the type of projects necessary to attain the objectives. Furthermore, the data on the existing situation and the activities supply the two elements considered essential for the evaluation described in Chapter V, i.e., the change in the situation and the development of activities which achieved the objectives.

The data are presented in two columns. In the first column are listed all the data considered to be fundamental or easily obtained. The second column includes those data not considered essential or the collection of which requires special effort.

(SEE TABLES ON PAGES 14-15)

Chapter III. Basic Information for the Planning of Applied Mutrition Programs at the Local Level

Type of Data	Basic	Additional	Type of Data Basic Additional
1. GENERAL DATA Geography and history			b) Environmental sanitation x c) Weight and height of in- fants, preschool and
a) Brief historical description	x		school-age children x
b) Brief description of locale	x		d) Weight of adults x
c) Water resources	x		e) Clinical-nutritional data x
d) Altitude	x		2.2. Resources
Climatic conditions	×		a) Human x
Area sketch	x		b) Institutional x
Area plan	}	×	c) Financial x d) Material x
		^	1 - 1
Population data]		2.3. Activities data
a) Sex and age distributionb) Migration and immigration	x		a) Nutrition education of the
	^	ļ	community x
Sociocultural data a) Occupation and family income	_x		b) Supplementary foods x c) Medical care in health x
b) Literacy level and average	} ^		institutions, including:
years of school attendance] x		Nutrition recuperation
c) Leadership patterns	x		centers x
d) Means of social communica-			Health centers x
tion e) Food consumption practices	X		Hospitals
	x		d) Environmental sanitation (food control, safe water
Land tenure	x	1	supply, waste and excreta
Plans for regional development	x		disposal) x
	['		e) Educational material pre-
2. PUBLIC HEALTH DATA	İ		pared and distributed x
2.1. Health status	.		f) Training x
a) Vital statistics			g) Immunization programs x
Dinkly t-			3. AGRICULTURAL DATA
Birth rate Death rate (general)	x x	!	3.1. Agricultural situation
Death rate (less than 1 year	, x		a) Land use and development x
of age)	x		b) Food production, animal
Death rate (1-4 years of age			husbandry and fish culture,
Death rate due to specific			and the factors determin-
causes related to malnutri- tion	}		ing production, marketing,
l	i	x	and distribution x

T	ype of Data	Basic	Additional		Туре	of Data	Basic	Additiona
	Food technology		х	[4.2.	Resources		
d)	Handicrafts and distribu-				- 1	TT		
	tion procedures	ļ	x	ĺ	a)	Human	Х	
e)	Development of commercial			ļ	b)		x	
	food and handicraft industry	x	!			Financial Material	x	
3.2.	Resources					Activities	×	
a)	Human	x		\	•		1	
b)	Institutional	x				Plans and programs of study	x	
	Financial	x		[b)	Education in nutrition and]	
ď)	Material	x		ł		food, agricultural produc-	1	
- •	Activities	^ [}		tion, and home economics for pupils and community		
				Ì		groups	x	
a)	· · · · · · · · · · · · · · · · · · ·	x		ļ	c)	Food supplementation	x	
βJ	Agricultural extension	х		f		Food and nutrition train-	<u> </u>	ı
	Home industries	x		1	•	ing for teachers and	1	
	Cultivation of home gar-			,		pupils	x	
	dens, orchards, etc.	x		ĺ			,	
	Home economics	x		5.	COMM	UNITY DEVELOPMENT		
	Farmers' organizations	х		-		,		
``	Training	x		ļ .	フ・ユ・	Studies and research avail-		
	Credit	x		ļ		able, economic and cultural	х	
a)	Educational material prepared				5.2.	Resources		
1	and distributed	x		İ				
e)	Products and services sup-			i	a)	Human	x	
	plied by farms, mills, and/			1	p)		x	
	or agencies	x		ļ	- :	Financial	x	
l. TIDIT	O AETON				d)	Formal and informal com-		
+. EDU	CATION		,		`	munity organization	x	
4.1.	School statistics					Material	x	
	School population	x		Į	J• J•	Activities	1	
	Total registration	x		l	a)			
c)	Average attendance	х		l		cially related to food and	[
d)	Absences and causes iden-			I		nutrition	x	
	tified	ж		1	b)	Selection, training, and]	
e)	"Drop-outs" and causes			Į .		use of leaders	x	
	identified	ж		Į.	c)	Community organization	x	
	School promotion	x				Construction of schools,	1	
g)	Schedule and school programs	x				health centers, roads,]]	
-				ì		water supply, and other		
				!		community works	ж	
			•	'		-	. ,	

CHAPTER IV

PLANNING AND ORGANIZATION OF APPLIED NUTRITION PROGRAMS

Item 3

A. Planning at the National and Regional Levels

Applied Nutrition Programs should form part of national plans of economic and social development. Since these programs exist as a result of explicit arrangements between each Government and the specialized agencies of the United Nations (PAHO/WHO, FAO, and UNICEF), the Seminar considered it essential that the planning and organizing of these programs should be initiated at the national level. In selecting the region or regions most in need of a program, Governments would need to take into account all the information available on nutrition and food problems in the various regions of the country. Similarly, within each region, it would be necessary to select operational areas on the basis of the criteria and conditions outlined in the following paragraphs. The local level, however, should be regarded as the basic element in all detailed planning, the point at which direct contact is made with the people themselves and at which the work of the officials of the various bodies participating in the program would actually be performed.

It was also considered necessary to centralize at the national and/or regional level some general types of activity, such as special research projects (surveys), preparation and printing of educational material, training of personnel, nutrition recuperation centers, etc.

The Seminar identified the following criteria and conditions for use in the selection of a representative pilot area in which to begin detailed planning of an Applied Nutrition Program:

 a) Existence and magnitude of nutrition and food problems.

- b) Existence of minimum resources in terms of health, agricultural, educational, and other services.
- c) Quality of natural resources: soil, water, climate, etc.
- d) Accessibility of the area (distance, communications, methods of transportation).
- e) Responsiveness of the community.
- f) Density of population.

It was also emphasized that the existence of minimum resources in terms of services of the health, agricultural, and educational agencies as well as others is essential for the initiation of the program.

It was further observed that a favorable attitude on the part of the community is advantageous for the initiation of activities in the pilot area, and is an essential prerequisite in future expansions of the program to other areas of the region.

B. Planning at the Local Level

Once the area has been decided upon, on the basis of the afore-mentioned criteria and conditions, the planning process should include the following stages and substages:

1. Diagnosis or Study of the Situation

- a. Description of the nutrition and food situation:
 - (1) General basic data
 - (2) Establishment of the indicators of change
 - (3) Identification of factors responsible for the change

b. Interpretation and analysis of the situation and definition of the problems.

2. Planning the Program

- a. Establishment of priorities based on the magnitude, importance, and vulnerability of the health hazard or problem, giving due consideration to cost.
- b. Definition of general and specific objectives and of long-range and short-range goals. These goals should be numerically quantifiable, as far as possible.
- c. Plan of action (what, who, for whom, how, when, and where?)

C. Organization of the Program

1. At the National Level

One of the fundamental principles in Applied Nutrition Programs is that their planning and execution are the responsibility of the health, educational, and agricultural officials and agencies participating in them.

As the program involves a number of disciplines, it is considered essential to form a national committee composed of representatives of the Ministries of Health, Agriculture, and Education and of any other bodies it may be desirable to include.

It is also suggested that a national secretariat of a permanent character should be formed, possessing the staff needed to carry out the extension and coordinating activities of the national committee on a more continuous and effective basis. One of the primary functions of the national committee should be the furnishing of adequate funds for the program. The committee should also be responsible for the coordination and allocation of technical assistance and international funds assigned to the program.

2. At the Regional Level

At this level, too, it is considered necessary to form a coordinating committee composed of representatives of official and private health, educational, agricultural and community development agencies, as well as of other agencies, official and voluntary, that can contribute to the program. Besides its coordinating functions, this committee should be responsible for obtaining satisfactory financing for the program, from official and private sources.

At the Local Level

Local committees composed of local authorities and community leaders, and of officials of the agencies participating in the Applied Nutrition Program, should be formed with the primary objective of establishing the program firmly in the area and ensuring the continuous participation of the community in the various fields of activity.

D. Supplementary Conclusions

The following additional conclusions were also reached:

- 1. Each Ministry participating in the program should create the minimum machinery required to enable it to perform its assigned functions.
- 2. The Government should allot additional funds to Ministries to meet the cost of the special activities required for the development of the program.
- 3. Programs for the training and education of personnel should be strengthened in all the special fields of the program and at all its levels.
- 4. Conditions and incentives should be created to ensure that personnel trained for Applied Nutrition Programs will remain within those programs.

- 5. Continuous and effective supervision of the program should be assured by the personnel of each of the participating bodies.
- 6. Appropriate records and reports on the activities undertaken in all aspects of the program should be maintained.

CHAPTER V

EVALUATION OF APPLIED NUTRITION PROGRAMS

Item 4

The Seminar considered some of the more important aspects of the evaluation of Applied Nutrition Programs. Its main conclusions are given below.

A. Most Suitable Indicators for Measurement of Changes in the Nutrition Situation

The following were regarded as the most suitable indicators for the measurement of changes in the nutrition situation:

- Mortality rate in children of less than 1 year of age.
- 2. Mortality rate in children 1-4 years of age.
- 3. Ratio between mortality rate in children 1-4 years of age and in children of less than 1 year (Wills-Waterlow index).
- 4. Percentage of deaths of children of less than 5 years of age in relation to the total mortality rate.
- 5. Specific mortality rate for malnutrition.
- Specific mortality rate for measles and gastrointestinal diseases.
- 7. Weight and height in relation to age.
- 8. Clinical indications of nutritional status.

B. Some Specific Objectives Frequently Found in Applied Nutrition Programs

The specific objectives of an Applied Nutrition Program—which are determined at the planning stage, after analysis of the existing situation, definition of the problems, and establishment of their relative priorities—have already been discussed in previous chapters.

The following chart indicates in columnar form some of the objectives frequently established in programs of this kind by the health, agricultural, and educational sectors, and shows in each case the indicators regarded as most suitable:

	Specific Objectives		Indicators
Hea	lth		
1.	Prevention of malnutrition in vulnerable groups:	1.	Weight and height
	 Preschool Pregnant and nursing mothers Infants Schoolchildren 		
2.	Recuperation of children suffering from malnutri-tion	2b.	Classification of children according to extent of malnutrition (Gómez scale) Number of children recovered Percentage of readmissions or relapses
3.	Assurance of an adequate diet for infants		Weaning Nature of diet after weaning

<u> </u>	Special Objetives	Indicators
Agr	riculture	
1.	Increasing cultivation of foods (garden vegetables, legumes, etc.)	la. Number of small- holders growing these crops lb. Area under culti- vation lc. Amount produced
2.	Increase in small-scale animal husbandry	2a. Number of pro- jects 2b. Number of live- stock by species 2c. Production (meat, eggs, etc.)
3.	Increase in home preser- vation of food	 3a. Number of families engaged in activities of this nature 3b. Amount of produce preserved (for consumption and sale)
4.	Improvements in the marketing of agricul-tural produce	4a. Number of farmers participating (in organized groups) 4b. Volume of production marketed and its value
Edu	ncation	
1.	Improvement in the under- standing of nutrition and food by the general public	la. Number of courses given, talks, etc. 1b. Number of persons who have received instruction 1c. Subject taught 1d. Number of hours of classes

	Special Objetives		Indicators
Educ	cation (continuation)		
		le.	Educational mate- rials prepared and distributed
2.	Increase in the consumption of protein-rich vegetable mixtures	,	Number of families using the food mixture Volume of sales in stores, health agencies, etc.

C. Responsibility for the Evaluation of Applied Nutrition Programs

The Seminar was of the opinion that each participant in the planning and execution of these programs, at all levels, has the responsibility of evaluating the parts of the program with which he is concerned. To ensure that this is done effectively, it is essential to train the personnel in the techniques and methodology of evaluation.

D. Reporting Procedures

The Seminar believed that all agencies participating in the Applied Nutrition Program should maintain an effective system of reports at all levels, which will ensure that information from the local level reaches the regional and, in turn, the national level, and similarly that a reverse pattern of communication from national to local levels is established. Reports should be prepared periodically and as often as circumstances require. So far as possible, they should be uniform in character, in order to facilitate their tabulation and analysis. The information should, preferably, be quantitative and should relate not only to activities already undertaken (efforts made), but also to the results obtained (changes realized) in the achievement of specific objectives, as measured by

the indicators of change. The reports should be utilized not only to ensure that officials in the participating agencies are supplied with up-to-date information, but also to inform the general public, and the beneficiaries in particular.

Participating agencies should exchange reports, so as to ascertain that each is well informed about the activities that are being developed by the others.

E. Principal Problems Arising in the Evaluation of Applied Nutrition Programs

The Seminar was of the opinion that the principal problems arising in the evaluation of Applied Nutrition

Programs are the following:

- Lack of basic data and points of reference (indicators).
- 2) Failure to establish specific objectives and corresponding goals.
- 3) Absence of satisfactory system of supervision and reporting.

These defects are more especially due to the lack of personnel trained in these types of activities, and to their short period of tenure in their respective positions.

CHAPTER VI

GUIDE FOR THE EVALUATION OF APPLIED NUTRITION PROGRAMS IN LATIN AMERICA AND THE CARIBBEAN AREA

Item 5

				COI	UNTRY				
(To	Ъе	used	at	either	national,	regional,	or local	levels))
						Dates r	eports sub	mitted:	
						Month_		Year _	
						Month_		Year	
				_		Month_		Year _	
						Month_		Year	
						Month		Year	

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Country	у			
Level				
Region				
Area				

I. General Information

A. Period of Evaluation*

First period, from the month of	19	until	19
Second period, from the month of	19	until	19
Third period, from the month of	19	until	19
Fourth period, from the month of	19	until	19
Fifth period, from the month of	19	until	19

B. Persons Who Made the Evaluation* (Names and positions)

lst Period	2nd Period	3rd Period	4th Period	5th Period

^{*} See General Instructions.

II. Identification of the Fundamental Problems

A. Diagnosis of the Existing Problems and How They Were Determined

Theighing muchlows		Magnitude (1-5	range) and how	determined*	
Existing problems	lst Period	2nd Period	3rd Period	4th Period	5th Period
		·-			
	,				
		,			
			'		

^{*} See General Instructions.

II. B.* Main Problems Related to Nutrition and Food, and Their Magnitude in a 1-5 Range

In order	7	MAGNITUDE				
of priority	Problems	lst Period	2nd Period	3rd Period	4th Period	5th Period

III.* Objectives

A. Long-Term

In order of priority	Objectives	Time period	lst Period	2nd Period	3rd Period	4th Period	5th Period
	·						
							<u> </u>

^{*}See General Instructions.

III. B.* Short-Term

In order of priority	Objectives	Time period	lst Period	2nd Period	3rd Period	4th Period	5th Period
		!					
							·
					ļ		

^{*} See General Instructions.

IV. Program Direction. Structure and Method of Coordination

A. Brief Description of the Program

B. Areas Covered

	lst Period	2nd Period	3rd Period	4th Period	5th Period
Number of areas					
Total number of areas covered					
Total population covered					
Who selected the areas?				·	
Basis for selection					
	Total number of areas covered Total population covered Who selected the areas?	Number of areas Total number of areas covered Total population covered Who selected the areas?	Number of areas Total number of areas covered Total population covered Who selected the areas?	Number of areas Total number of areas covered Total population covered Who selected the areas?	Number of areas Total number of areas covered Total population covered Who selected the areas?

IV. C.* Area Map or Sketch

Identify initial area and its expansions to date, indicating date on which it was expanded.

^{*} See General Instructions.

IV.	D.	Nutrition Service and Institute of Nutrition.*	Do Nutrition Services exist?
			Institute of Nutrition?

	Information	lst Period	2nd Period	3rd Period	4th Period	5th Period
1.	Nutrition Service				<u>-</u>	
	Date created					
	In which Ministries?					
ļ	Section's responsibilities					
	No. of sections					
	Total no. of technical personnel					
·	No. personnel working solely in Applied Nutrition Program					
	% of time devoted to Applied Nutrition Program					
2.	Nutrition Institute					
	Date created					
	Under which Ministries?					
	Responsibilities					
	Total no. of technical personnel					
	Personnel working solely in Applied Nutrition Program					
	% of time dedicated to Applied Nutrition Program					

^{*} See General Instructions.

IV. E. Nutrition Committees

Information	lst Period	2nd Period	3rd Period	4th Period	5th Period
No. of Committees	 				<u> </u>
Levels at which they exist					
Date of organization					
Are they active?					
Specific functions at each level					
Membership				· · ·	
Coordinating mechanism*					
No. of meetings					
No. of reports prepared					
No. of proceedings					

^{*} See General Instructions.

IV. F. Coordinating Committee of the Applied Nutrition Program

1.	Is there a Coordinating	Committee?* Nation	onal level?	Regional level?	Local level?	
	Indicate whether or not	the Coordinating	Committee is the	same as the Nutrition	Committee. Yes	No

Information	lst Period	2nd Period	3rd Period	4th Period	5th Period
NATIONAL LEVEL:					
Main functions					
Members					
Coordinating mechanism					
No. of meetings					
No. of reports					
No. of proceedings					
REGIONAL LEVEY:					
Main functions					
Members					
Coordinating mechanism					
No. of meetings					
No. of reports					
No. of proceedings					
LOCAL LEVEL:					
Main functions					
Members		·			
Coordinating mechanism					
No. of meetings					
No. of reports					
No. of proceedings					<u> </u>

^{*} Only one level should be filled.

IV. G.* General Organization Chart Identifying Relationship of the Different Ministries, Agencies, and Other

Organizations Participating in the Applied Nutrition Program

^{*}See General Instructions.

IV. H.* Organization Chart of Any Special Structure Developed for the Operation of the Program

I. Describe the Organization and Function of Any Special Structure

Year	Description
L	

^{*} See General Instructions.

IV. J. Identify the Section or Group within Each Ministry or Any Other Agency Which Has Specific Responsibility for Directing, Supervising, and Evaluating the Applied Mutrition Program

Agencies	lst Period	2nd Period	3rd Period	4th Period	5th Period
Agriculture					
Education					
Health					
Community development					
Other					

K. Is the Applied Nutrition Program an Integrated Part of Ongoing Programs of the Respective Agencies?

Ministry	lst Period	2nd Period	3rd Period	4th Period	5th Period
Agriculture					
Education					
Health					
Community development					
Other					

V. Resources for the Program*

A. Annual Budget Assigned to Food and Nutrition Programs**

Ora	anization	lst Period		2nd Period		3rd Period		4th Period		5th Period	
01 6	31112001011	Total assigned to nutrition	% ANP	Total assigned to nutrition	% ANP	Total assigned to nutrition	% ANP	Total assigned to nutrition	% ANP	Total assigned to nutrition	
1.	Country Agriculture										
	Education										
	Health										
	Nutrition Institute										
	Other***	222 222222 22									
2.	International WHO										-
	FAO										
	UNICEF										
	Other***										

^{*} Complete only the corresponding level.

(ANP - Applied Nutrition Program)

^{**} See General Instructions.

^{***} Specify.

V. B.* Personnel: by Organization and Amount of Time Devoted to the Program

1. Professional Personnel**

Organization	lst Period	2nd Period	3rd Period	4th Period	5th Period
a. <u>Total</u>					
l. Agriculture					· · · · · · · · · · · · · · · · · · ·
2. Education					
3. Health					
4. Other***					
b. <u>Full-time</u> (indicate type) l. Agriculture					ı
2. Education					
3. Health					
4. Other***					
c. Part-time (indicate type)					
1. Agriculture					
2. Education 3. Health					
4. Other***					

^{*} See General Instructions. ** Complete only the corresponding level. *** Specify.

V. B.* 2. Auxiliary Personnel

Organization	lst Period	2nd Period	3rd Period	4th Period	5th Period
a. <u>Total</u>					
1. Agriculture					
2. Education					
3. Health					
4. Other**					
b. <u>Full-time</u>					
l. Agriculture					
2. Education					
3. Health					
4. Other**					
c. Part-time					
l. Agriculture					
2. Education					
3. Health					
4. Other**					

^{*}Complete only the corresponding level. ** Specify.

V. B.* 3. Additional Information about Professional Personnel

Personnel working in the Applied Nutrition Program

Year of report	Profession and specialization	Training and principal responsibilities	No.	Agency involved	Time devoted to the program
					·
			. :		
4-					

^{*} See General Instructions.

V. B. 4. International Experts* and Other **

Year of report	Specialty	No.	Organization involved	Principal responsibilities	Agency of assignment	Agencies being advised	Is there a nation- al coun- terpart?	Length of service	% time devoted
							E		

^{*} See General Instructions. ** Complete only the corresponding level.

V. C.* Services and Facilities

1. Services Provided to the Program by National Agencies

Commission manufiled		Agencies pr	oviding services		
Services provided	lst Period	2nd Period	3rd Period	4th Period	5th Period
(Indicate agencies which provided the services)**					
l. Training					
2. Supervision					
3. Advisory services					
4. Research					
5. Preparation of visual aids					
6. Food distribution					
7. Distribution of poultry, rabbits, etc.	٠				
8. Seed distribution					
9. Equipment distribution					
10. Information to the public					
11. Other***					

^{*} See General Instructions. ** Use initials (A-Agriculture, E-Education, etc.). *** Specify.

V. C. 2. Services and Facilities Provided to the Program by International Agencies

a		Agencies p	roviding the serv	ice	
Services provided	lst Period	2nd Period	3rd Period	4th Period	5th Period
(Indicate agencies which provided the services)*					
l. Training					
2. Supervision					
3. Advisory services		·			
4. Research					
5. Preparation of visual aids					
6. Information to public					
7. Other**					

^{*} Use initials (A-Agriculture, E-Education, etc.). ** Specify.

V. C. 3.* Supplies and Equipment Provided by National Agencies

	Supplies	lst Period	2nd Period	3rd Period	4th Period	5th Period
1.	Traveling expenses					
2.	Vehicles and maintenance					
3.	Gasoline				·	
4.	Communications					
5.	Demonstration expenses					
6.	Vitamins and minerals					
7.	Food					
8.	Seeds					
9.	Fertilizers and pesticides					
10.	Housing					
11.	Irrigation					
12.	Supplies and equipment**					
13.	Publications				•	
14.	Training expenses				,	
15.	Other**					

^{*} See General Instructions. ** Specify.

V. D.* Legislation

1. Measures Related to the Applied Nutrition Programs

Date of ratification	Existing legislation	Who is responsible for its enforcement?	Importance in relation to the program
			·

2. <u>Legislation Being Promoted</u>

Year	Legislation being promoted	Actual situation in relation to its progress	Importance for the program
			·

^{*} See General Instructions.

VI.* Training Activities

A.** Training of Personnel

	lst	Period	2nd	Períod	3rd	Period	4th	Period	5th	Period
Training	Object- ive Achieved		Object- ive Achieved		Object- ive Achieved		Object- ive	Achieved	Object- ive	Achieved
1. Total trained										
a) Professional personnel										
1. No. long-term training***										
2. No. short-term training****										
b) Auxiliary personnel										
l. No. long-term training***										
2. No. short-term training***				<u> </u>						
2. Areas of training and no. trained				<u> </u>						
a) General Applied Nutrition Program		;								
b) Health		_								
Basic nutrition										
Food supplementation program										
Sanitation										
c) Agriculture										
Vegetable gardens				<u> </u>						
Rearing of animals										
Cooperatives										
Fruit culture										
d) Home economics										

^{*} See General Instructions. ** Complete only corresponding level. *** More than six months. **** Six months or less.

VI.* Training Activities

A. Training of Personnel (continued)

	lst	lst Period		Period	3rd	Period	4th	Period	5th	Period
Training	Object- ive Achieved				Object- ive Achieved		Object- ive	Achieved	Object- ive	Achieved
e) Pedagogy	140	Acilieved	1.00	Acineved	140	Aciiicvcu	100	ACIIIeveu	TAG	ACIIIEVEC
f) Methodology										
g) Community organization										
h) Other**	_									
Total number of trained personnel in service										
Agencies in charge of training										

B.* Training of Leaders and Voluntary Personnel

1. Total no. trained				
2. Areas of training				i
a) Agriculture				
b) Education				
c) Health				
d) Applied Nutrition Program				
e) Other**				
3. Agencies in charge				·

^{*} See General Instructions. ** Specify.

VI. Training Activities

C. Additional Resources Available for Professional Improvement (describe)

	Resources	lst Period	2nd Period	3rd Period	4th Period	5th Period
1.	Fellowships Total no. fellowships					
	No. of national					
	No. of international					
2.	Educational loans					
3•	Travel					
4.	Other*					

^{*} Specify.

VII. Other Objectives Achieved

A.* Activities

				Activities to	ward the a	ccomplish	ment**	
Year	Short-range objective	Description of activity	Agency responsible	Objective established	Achieve Previous number	ments Present number	No. of areas in- cluded	Difficulties
								,
								·

^{*} See General Instructions. ** Specify.

VII. B.* Program Supervision

	lst Period	2nd Period	3rd Period	4th Period	5th Period
1. Who supervises in					
Agriculture					
Education		 			
Health					
Other** /					
2. No. of supervisors***					
Agriculture					
Education					
Health					
Other**					
3. Frequency					
Agriculture	İ				
Education					
Health					
Other**			<u> </u>		<u> </u>
4. Supervisors trained (yes or no)				:	
Agriculture					
Education					
Health				<u></u>	
Other**		· · · · · · · · · · · · · · · · · · ·			
5. Difficulties encountered				1	
Agriculture					
Education					
Health					
Other**				1	.]

^{*} See General Instructions. ** Specify. *** Indicate how many full-time, part-time, %.

VII. C. Methods Used in Achieving the Programs*

Year	Method	Frequency	In which program activity	Difficulties or problems	Any modifications of initial method
			·		
			,		
		·			
		i			
					• •
[

^{*} See General Instructions.

VII. D. Reports *

Information	lst Period	2nd Period	3rd Period	4th Period	5th Period
l. Agriculture					
a) Type of reporting					
Who is responsible?					
b) What is reported?					
Who is responsible?					
2. Education					
a) Type of reporting					
Who is responsible?					
b) What is reported?					_
Who is responsible?					
3. Health					
a) Type of reporting		·			
Who is responsible?					
b) What is reported?					
Who is responsible?					
4. Frequency					
5. Other					

^{*} See General Instructions.

VIII.* Indicators Used to Measure Changes or Reduction of the Problem

		Previous si	tuation	Present si	tuation
Year	Indicators**	National.	Area	National	Area
			·		
		,			
					i:
	1				
-					
		1			

^{*} See list of criteria - Annex II (page 60). ** Enumerate first direct indicators; then indirect indicators. See General Instructions.

IX. Conclusions and Recommendations

A.* Adequacy of the Available Resources for the Development of the Plan

	lst	Period	2nd Pe	eriod	3rd P∈	eriod	4th Pe		5th Pe	
Resources	Adequate (Yes-No)	Problems (Specify)	Adequate	Problems (Specify)	Adequate	Problems (Specify)	Adequate	Problems (Specify)	Adequate (Yes-No)	Problems (Specify)
	(168-10)	(phecil)	(168=110)	(pbecilà)	(168-140)	(pbecit?)	(165-10)	(pbeci13)	(165-10)	(pbecri2)
1. Funds]									
National										
International										
2. <u>Personnel</u>	}				!					
National (profes- sional and auxiliary)			!						,	
International										
3. Services		<u> </u>								
National							<u> </u>			
International					<u> </u>					
4. Facilities										
National										
International										
5. Equipment										
National								L		
International										

^{*} See General Instructions.

IX. B. Recommendations (based on results)

Summary	lst Period	2nd Period	3rd Period	4th Period	5th Period
A. Funds					
B. Personnel					
C. Activities					
D. Methods					
E. Reports					
F. Other*				· _	

^{*} Specify.

NOTE: It is suggested that this information be further supplemented with narrative statements.

GENERAL INSTRUCTIONS ON THE USE OF THE GUIDE FOR THE EVALUATION OF APPLIED NUTRITION PROGRAMS

This Guide is to be used as a single document covering the work of the health, education, and agricultural aspects of the Applied Nutrition Programs.

For each form, use the amount of space or number of pages needed.

PAGE 24

- I. A. Period of time covered by the evaluation. This may vary from a period of months, one year, to several years, depending on its purpose and the date of the previous evaluation.
- I. B. Include the names of those persons who participated in the evaluation of each phase of the program, and the position they hold.

PAGE 25

II. A. All of the problems will be listed in Section A. Indicate, when possible, how the information was obtained, i.e., clinical, biochemical, anthropometrical, dietetic, dental studies, etc.; or agricultural census, food balance sheets, cost-of-living studies, environmental sanitation, etc.

Indicate the date the studies were made and the total number of persons included in the study.

Give figures indicating the magnitude of the problem, when possible.

Indicate the statistics utilized in relation to the particular sector, town, state, or department covered by the Applied Nutrition Program, whenever possible; otherwise give national statistics.

PAGE 26

II. B. Identify the principal problems and assign

priority in order of importance, rating from 1-5. Assign highest priority (1) to the most serious problems and the one requiring immediate action, and the lowest priority to the least urgent problem.

PAGES 26-27

III. A and B. A long-term objective may extend over a period of several years. If, in any year, a specific objective is modified or others added, indicate this change in the year it occurs.

Long-term and short-term objectives will determine the nature of the program of work and the number of years required to achieve the identified objectives.

Relate each objective to the problem described, and to the order of priority assigned to the problem.

PAGE 29

IV. C. Indicate in the map all those areas which you expect to cover, according to the agreements, and those which are already being served.

Indicate which states, areas, regions, or geographic sections are included. Explain what is meant by each of these specific divisions. If only one region is covered, include a map of that particular area.

PAGE 30

IV. D. Depending upon the organizational structure of each country, a Nutrition Service may be called a Department, a Division, or a Section, at the national level.

An Institute of Nutrition may be called a Center in some countries.

PAGE 31

IV. E. Each country adopts a system of coordination which is most suitable for its use. For example: a permanent or rotating president of the Nutrition Committee.

PAGE 33

IV. G. It is not necessary to include a complete organogram of each Ministry, only of those specific sectors, divisions, etc., which are directly responsible for, or participating in, the Applied Nutrition Programs.

PAGE 34

IV. H. If a special division has been created to deal specifically with the Applied Nutrition Programs, indicate year in which it was organized, describe its structure, functions, and relation to the Ministries.

PAGE 36

V. A. If there are some employees in a Ministry assigned to work in the Applied Nutrition Program, full time or part time, the corresponding percentage of their salaries should be included in the assigned place.

Indicate the total amount of funds assigned to nutrition work and the percentage of these specifically used for Applied Nutrition Program. Deduct the amount used for nutrition activities, personnel, and equipment not identified with this program.

PAGE 37

V. B.l. b-c. Indicate personnel by profession (doctor, nurse, nutritionist, etc.) working full time or part time in the program, identifying the percentage

of time of the part-time personnel allocated to the Applied Nutrition Programs.

PAGE 39

V. B.3. Indicate, if possible, personnel working specifically in supervision, education, or field work at the national, regional, or local level. If possible, state their principal responsibilities.

PAGE 40

V. B.4. If you wish, you may prepare a list with the names of the experts for your future reference, but this is not essential.

PAGES 41-42

V. C.1 and 2. Indicate, using initials (A-Agriculture, E-Education, etc.), the different agencies or organizations, national or international, which provide the services in the period covered by the evaluation. The same service may be provided by one or more agencies, or essential services may not be provided by any agency.

PAGE 43

V. C.3. (Use initials as noted above to identify the agencies.) If possible, specify the type of equipment that was provided.

PAGE 44

V. D.1. Include those laws, regulations, etc., existing in the country that are related to the Applied Nutrition Program. These include such laws and regulations as: food code, iodization of salt, sanitary code, enrichment laws, fluoridation of water, etc.

V. D.2. Enumerate those laws and regulations which are in the process of being established and will become law in the near future. Indicate what result or progress has been achieved at the time of the evaluation.

PAGE 45

VI. A. If desired, a list of names of persons having received training may be prepared for future use in the program.

Indicate the different program areas in which training has been offered and the number of persons trained in one or more of these areas. For example, one group of persons may have received training in pedagogy, health, and gardening. The number trained would appear in each of the three areas.

Under Applied Nutrition Program-General (2-a), include all persons who received training in every phase of the ANP program.

PAGE 46

VI. B. Follow the same instructions as VI.A.

PAGE 48

VII. A. The list of activities in Annex II (page 60) may serve as a guide. Activities not identified in the list may be included also. In the early stages of development, a program may list only four or five, or even a smaller number of activities.

Results of activities carried on may be indicated in terms of objectives achieved or effort expended.

PAGE 49

VII. B. Indicate full-time or part-time supervisors

and, if possible, the amount of time given to supervision.

PAGE 50

VII. C. Example of methods which may have been used include charts, school feeding programs, mothers' clubs, school gardens, etc.

PAGE 51

VII. D. Reports may be prepared in quantitative or qualitative terms for specific activities such as: height and weight records, assistance in garden projects, etc.

PAGE 52

VIII. The suggested list of possible direct and indirect indicators in Annex II includes criteria that may be used to measure change or diminution of the problem. It is possible that none of these indicators will be appropriate for programs which have been in existence for only a short period of time. Since these are criteria measuring change, it is to be expected that, for obvious reasons, to obtain any visible results will require a period of several years.

PAGE 53

IX. A. Indicate whether resources available are or are not adequate. If they are not adequate, enumerate difficulties encountered. Resources may be inadequate because they are: insufficient, poorly distributed, available only occasionally, poorly coordinated, etc.

ANNEX I

DEFINITION OF TERMS

Definitions of some of the terms most commonly used in the Applied Nutrition Program.

ACTIVITY

Specific actions to achieve the objectives of a plan.

TRAINING

The provision of practical and formal instruction of selected personnel, to enable them to obtain a specific understanding and develop skills essential for the conduct of the program.

CRITERIA

A defined standard which will serve as the basis for decisions on specific situations, i.e., the establishment of identifiable norms for the evaluation of changes.

NATIONAL NUTRITION COMMITTEE

A group formed by representatives from national Ministries or agencies concerned with the food and nutrition problems and responsible for making recommendations to a Government on its national nutrition policy.

COORDINATION

The combination of efforts toward obtaining a specific objective.

COORDINATING COMMITTEE

Group of technical personnel responsible for utilizing the resources and integrating the activities of different agencies and institutions, for the purpose of achieving the common objectives of the program. At the local level, community representation on this committee seems advisable.

EDUCATION

The process of producing changes in knowledge, abilities, and attitudes.

EVALUATION

Measurement and appraisal of the progress made toward achievement of the different objectives of a Plan of Operations.

INDICATOR

Quantitative and qualitative reference values to evaluate situations and changes (preferably quantitative values should be used).

INFANCY

The period between birth and the day before the first birthday.

LOCAL LEVEL

The geographic areas where the beneficiaries of the program are living and where community activities are being conducted.

NATIONAL LEVEL

Covers the entire country.

REGIONAL LEVEL

Political, administrative, or ecological subdivision of a country or nation, such as a state, province, department, or a group of these.

OBJECTIVE

The end toward which a program or specific part of a program is directed.

GENERAL OBJECTIVE OR PURPOSE

The broad goal of a program.

SPECIFIC OBJECTIVE

A defined purpose to be achieved in each aspect of a program.

GOAL

A predetermined measurable target which can be achieved in a specific period of time.

ORIENTATION

Providing information needed to assist individuals or groups in comprehending the situations, conditions, and problems requiring action or change.

PRESCHOOL

The period between the first birthday and the last day of the fifth year of life (the day before the fifth birthday).

PLAN OF WORK

A document that specifies the activities and methods

to be carried out by an individual or group as a part of the plan of action.

PLAN OF OPERATIONS

A document that gives official approval to the agreements made by the agencies participating in the program, indicating at the same time their responsibilities, the duration and the approximate cost of the program, and the method of evaluation to be used.

PROGRAM

A written plan which describes the problem, the causative factors, and the measures to be taken for its solution.

PLAN OF ACTION .

A document that defines the specific activities of the program that are to be carried out in a predetermined place and period of time.

PROJECT

A plan of action developed for the purpose of achieving specific objectives during a prescribed period of time, and in accord with the general objectives of the program.

SUPERVISION

A system of direct and constructive guidance for the purpose of assisting personnel in the performance of specific activities and determining the effectiveness of their efforts.

ANNEX II

POSSIBLE CRITERIA* FOR USE IN EVALUATING APPLIED NUTRITION PROGRAMS

- A. CRITERIA FOR USE IN DETERMINING THE ACTIVITIES CARRIED OUT AND THE SPECIFIC RESULTS
 - l. Clinic services
 - a) Number of clinics per month
 - b) Clinics
 - (1) Prenatal (or) antenatal
 - (2) Children under 1 year
 - (3) Preschool children (1-4 years)
 - (4) School children
 - Food distribution program (in health centers, schools, etc.)
 - a) Number and type of projects
 - b) Total number of beneficiaries, by age
 - (1) Children under 1 year
 - (2) Children 1-4 years
 - (3) School children
 - (4) Antenatal
 - (5) Lactating women
 - (6) Other groups (specify)
 - Percentage of the population of each age group served
 - (1) Children under 1 year
 - (2) Children 1-4 years
 - (3) School children
 - (4) Antenatal
 - (5) Lactating women
 - (6) Other groups (specify)
 - frequency with which the service is provided
- * For use in relation to the Evaluation Guide Section VIII.A.

- e) Decrease in food waste
- f) Total amount of food distributed (in pounds)
 - (1) Milk
 - (2) Cereals (specify)
 - (3) Fats
 - (4) Other foods
- g) Amount of each food assigned per person
- h) Regularity of meals served
- i) Community contribution to food programs
 - (1) Food donated
 - (2) Services donated
 - (3) Hours of service or work
- j) Total amount of funds involved
- 3. Distribution of vitamin and mineral supplements to mothers and children
 - a) Total number of beneficiaries and number of each by age
 - b) Percentage of public served represented by beneficiaries in (a)
 - c) Supplements distributed (total amount)
 - d) Total amount of money involved
- 4. Nutrition rehabilitation or recuperation centers
 - a) Number of centers
 - (1) Outpatient
 - (2) Inpatient
 - b) Number of beneficiaries by age
 - c) Distribution of foods to the center
 - d) Orientation (or education) of the family (meetings or services)
 - e) Total amount of money involved
- 5. Specialized personnel who have received professional training in nutrition (specify the duration of the training)

- a) Total number of persons trained
 - (1) For positions at central level
 - a. Physicians
 - b. Nutritionists
 - c. Others (specify)
 - (2) For positions at local level
 - a. Physicians
 - b. Nutritionists
 - c. Others (specify)
- Number of persons trained who are employed in the program
- c) Number of fellowships provided
- 6. Specialized personnel who have received shortterm training in nutrition (less than six months) (specify length of training)
 - a) Total number of persons trained
 - (1) Physicians
 - (2) Nutritionists
 - (3) Dietitians
 - (4) Nurses
 - (5) Nutrition auxiliaries
 - (6) Auxiliary nurses
 - (7) Sanitarians
 - (8) Health educators
 - (9) Social workers
 - (10) Agronomists, veterinarians, and other professional personnel
 - (11) Agricultural technicians of middle level
 - (12) Home economists
 - (13) Teachers
 - (14) Home demonstration agents
 - (15) Others (specify)
 - b) Number of persons trained who are retained in service
 - c) Number of fellowships provided

- 7. Training and use of leaders*
 - a) Number of leaders being used (specify type of leaders)
 - b) Number of these leaders who are trained
 - c) Number of courses offered under each heading (example: agriculture, education, etc.)
- 8. Educational institutions teaching nutrition
 - a) School level (primary, secondary, normal, universitary)
 - b) Number of schools
 - c) Number of students
 - d) Hours per week
 - e) Number of specialized teachers
 - f) Total number of teachers participating
 - g) Total number of teachers who have had training in nutrition
- 9. Food production Educational work
 - a) Level of school
 - b) Number of schools
 - c) Number of students
 - d) Number of hours/week
 - e) Number of specialized teachers for this training
 - f) Total number of teachers participating
 - g) Total number of teachers trained in agriculture
- 10. School, family, and community gardens
 - a) Number of schools having gardens
 - (1) Amount and kind of food produced
 - (2) Use of the produce
 - a. Consumption by the children
 - b. Sold

^{*} Evaluation Guide includes specific sections related to this information, Section VI.B.

- b) Number of family gardens
 - (1) Amount and kind of food produced
 - (2) Use of the produce
 - a. Consumption by the families
 - b. Sold
- c) Number of plots used
 - (1) Number donated by the community
 - (2) Size
- d) Kind and amount of foods distributed to the community
- e) Kind and amount of seeds and plants distributed to community gardens
- 11. Fruit projects
 - a) Number of schools with a project
 - b) Number of family and/or community projects
 - c) Kind of fruits produced '
 - d) Total production and its use
 - (1) Consumption by the producer
 - (2) Sold
- 12. Poultry projects
 - a) Number of school, family, and community projects
 - b) Number of animals in the schools included
 - c) Pounds of meat produced
 - d) Egg production
 - e) Use of the produce
 - (1) Consumption by the producer
 - (2) Sold
- 13. Number of other small projects in the school, family, and community
 - a) Number of schools included
 - b) Number and type of projects
 - c) Number and type of animals

- d) Total production for each type of project
 - (1) Use for consumption by the producer
 - (2) Sold
- 14. Improvement of distribution activities, including cooperatives
 - a) Technical assistance (type and duration)
 - b) Organized cooperatives (type, number, number of members)
 - c) Marketing
 - d) Credit (type and amount)
 - e) Development
 - f) Other (specify)
- 15. Demonstration farms
 - a) Number
 - b) Services rendered
 - c) Pilot projects for crops and cattle raising
 - d) Training of personnel and farmers
 - e) Total production
 - (1) Percentage for consumption by producer
 - (2) Percentage for sale
- 16. Centers for production of concentrated foods for animals
 - a) Type of food
 - b) Quantity of each type produced
 - (1) Used for the program
 - (2) Sold
- 17. Teaching of home economics
 - a) School level at which it is taught
 - b) Number of schools
 - c) Total number of students
 - d) Hours per week
 - e) Number of teachers available who have specialization in this field (including some special training in nutrition)
 - f) Number of home economics laboratories or demonstration areas available

- g) Total number of teachers participating
- h) Total number of home economics teachers being trained
- 18. Clubs or special groups organized
 - a) Young people in the schools
 - (1) Number of such groups
 - (2) Total enrollment
 - b) Out-of-school youths
 - (1) Number of such groups
 - (2) Total enrollment
 - (3) Type of groups
 - c) Adult groups
 - (1) Number of groups
 - (2) Total enrollment
 - (3) Type of groups
- Food conservation projects (school, home, and community)
 - a) Number and type of projects
 - b) Number of schools, families, and/or communities included
 - c) Pounds of food preserved and kind
 - d) Number of food preservation demonstrations
 - (1) Type
 - (2) Attendance
- 20. Demonstrations of food preparation
 - a) Type of foods
 - b) Number of demonstrations
 - c) Nature of groups
 - d) Attendance
- 21. Short courses offered to people in the community
 - a) Subject matter included
 - b) Number
 - c) Attendance

- 22. Meetings of planning and coordination
 - a) Specify topics of the meeting
 - b) Number
 - c) Attendance
- 23. Short talks
 - a) Theme
 - b) Number
 - c) Attendance
- 24. Observation visits received
 - a) Nature
 - b) Number
 - c) Attendance
- 25. Other activities (specify)
 - a) Number
 - b) Attendance
- 26. Result of demonstrations in the community
 - a) Type
 - b) Number
 - c) Number of people visiting demonstrations
- 27. Educational material prepared and distributed
 - a) Number of different ones prepared
 - b) Nature and content
 - c) For whom prepared
 - d) To whom distributed
 - e) Number of textbooks and contents
 - f) Number of bulletins and contents
 - g) Other
- 28. Methods of communication with the workers and community
 - a) Number of times radio used
 - b) Number of television programs
 - c) Number of press articles written and number published
- 29. Research undertaken

- B. CRITERIA WHICH MAY BE USED TO EVALUATE THE ORGANIZATION AND ADMINISTRATION OF THE PROGRAM (INCLUDES SUPERVISION, COORDINATION, REPORTS, ETC.)
- C. CRITERIA FOR DETERMINING THE RESULTS OF THE PRO-GRAM (REDUCTION IN THE MAGNITUDE OF THE PROBLEM AND CHANGES TAKING PLACE)
 - 1. Mortality statistics
 - a) Mortality rates (all causes)
 - (1) General
 - (2) Under 1 year
 - (3) Children 1-4 years
 - (4) Percentage of total deaths represented by deaths under 5 years of age
 - b) Specific mortality rates
 - (1) Diarrheal diseases (543, 571, 572)
 - a. Total
 - b. Under 5 years
 - (2) Avitaminosis and other metabolic diseases (280-286)
 - a. Total
 - b. Children 1-4 years
 - c. School-age children
 - (3) Anemias (290-293)
 - a. Total
 - b. Under 5 years
 - (4) Measles (085)
 - a. Total
 - b. Under 5 years
 - c. Pregnant and lactating women
 - (5) Others (specify)
 - 2. Number of hospital admissions for:

- a) Diarrheal diseases
 - (1) Total
 - (2) Under 5 years
- b) Measles
- c) Goiter
- d) Protein-calorie malnutrition
 - (1) Under 5 years
- e) Anemias
 - (1) Under 5 years
- f) Avitaminosis
 - (1) Under 5 years
- 3. Change in the nutritional status
 - a) Percentage of children underweight
 - (1) Under 1 year*
 - (2) 1-5 years*
 - (3) 6 years and above **
 - b) Percentage of cases of malnutrition, children under 1 year of age***
 - (1) 3rd degree malnutrition
 - (2) 2nd degree malnutrition
 - (3) 1st degree malnutrition
 - c) Percentage of cases of malnutrition in preschool children (1-5 years)***
 - (1) 3rd degree malnutrition
 - (2) 2nd degree malnutrition
 - (3) 1st degree malnutrition

^{*} Use Gomez classification.

^{**} Indicate method used.

^{***} Under supervision in maternal and infant clinics.

- d) Prevalence of anemia expressed in percentage*
 - (1) In pregnant women
 - (2) In children under 5 years of age
- e) Prevalence of diarrheal diseases*
 - (1) In children under 5 years of age
- f) Number of newborns under 2.5 kg.**
- g) Readmission rate of malnourished children under 5 years of age with gastroenteritis
- h) Prevalence of goiter
- i) Incidence of dental caries in school children (per cent) (D.M.F. rates)***
- j) Height and weight in vulnerable groups
- k) Other deficiency diseases
- 4. School attendance during the year
 - a) Number of days child attended
 - b) Number of absences of more than three days
 - (1) Absences for illness
 - c) Number of absences of less than three days
 - d) School retention (number of children who left school)
 - e) Decrease in number of children repeating school grade
 - f) Enrollment
- 5. Identify type of request for service received
- Number of persons adopting new agricultural techniques developed
- 7. Number of persons who have adopted new types of equipment and tools for food production
- * Under supervision in maternal and infant clinics.
- ** Expressed as percentage of prematures attaining normal weight at 1 year of age.
- *** Decayed, missing, filled.

- 8. Increased food consumption of a specific food (quantitative evidence)
- Increase in amount of food sold in the community (quantitative evidence)
- 10. Acceptance of new foods (quantitative evidence)
- ll. Changes in food habits (evidence)
- 12. Number of families who have improved the breakfast meal and any other of the meals, including the hours served
- 13. Demand for seeds
 - a) Kind and amount distributed
 - b) Kind and amount sold
- 14. Changes in family income
- 15. Better distribution of family budget
- 16. Increase, at the family level, of the utilization of foods of higher nutritive value
- 17. Diversification of agricultural production
- 18. Improvement in system of food distribution
- 19. Changes and increases in the services which are rendered by health center personnel
 - a) At school
 - (1) Medical attention
 - a. Number of persons served
 - b. Number of hours of service
 - (2) Dental services
 - (3) Conferences and lectures
 - b) In the community
 - (1) Medical attention

- a. Number of persons served
- b. Number of hours of service
- (2) Dental services
- (3) Conferences and lectures
- 20. Improvement in sanitary conditions
 - a) In the homes

- b) In school
- c) In the community
- 21. Better use of time among women in home making
- 22. Reduction in food waste in the homes
- 23. Increase in number of working days for farm labor and others

ANNEX III

ADDITIONAL RECOMMENDATIONS

The Seminar formulated the following additional recommendations which bear a direct relation to the subject and complement the other recommendations contained in the present document:

- 1. In those countries where there are programs for integration of the Indian population, these should be coordinated with the Applied Nutrition Programs.
- 2. In the above-mentioned countries, where there are no Applied Nutrition Programs, the agency responsible for nutrition policy and programs should collaborate with the services that plan for integration of the Indian population.
- 3. The specialized agencies of the United Nations, PAHO/WHO, and FAO should convene a mixed group of experts in their respective fields of work, to study jointly the problems of nutrition and advise each of the countries that are developing Applied Nutrition Programs, particularly with respect to planning and evaluation.

ANNEX IV

LIST OF PARTICIPANTS

LATIN AMERICAN SEMINAR ON PLANNING AND EVALUATION OF APPLIED NUTRITION PROGRAMS

Participants (by country)	Profession	Organization	Participants (by country)	Profession	Organization
Bolivia			Costa Rica		
Serafín Rajab C.	Agronomist	Institute of Coloniza-	Oscar Pacheco	Agronomist	Min. of Agriculture
		tion and Rural Com- munity Development	Bienvenido Ramírez	Teacher	Min. of Education
Ruth de Quiroga	Nutritionist	Department of Nutri- tion, La Paz	Federico Sosto	Physician	Ministry of Health
Hugo Alcoreza	Professor	Min. of Rural Affairs	<u>Cuba</u>		
			Ricardo Machado	Sociologist	Min. of Education
<u>Brazil</u>			Luis Kaustman	Lawyer	Min. of Agriculture
Antonio Méndes Monteiro	Physician	National Food Commis- sion, Min. of Health	Raúl Riverón C.	Physician	Ministry of Health
Antonio Padilha	Physician	Ministry of Health	Ecuador		
Chile			Iwis Vallejo	Medical Nu- tritionist	Nat. Inst. of Nutri- tion
Alfredo Riquelme	Medical Nu- tritionist	Nat. Health Service	José Alvarez	Physician	Ministry of Health
Carlos Rocca	Administrator	Ministry of Education	El Salvador		
Colombia			René Portillo	Agronomist	Agricultural Extension Services
Francisco Piedrahita	Medical Nu- tritionist	Ministry of Health	Inés Méndez	Teacher	Agricultural Extension Services
Ramón Murgueitio	Agronomist	Min. of Agriculture	Honduras		
Luis Insuasty	Health Educator	Min. of Education	Arturo Zelaya	Physician	Ministry of Health
Roberto Rueda Williamson	Medical Nu- tritionist	National Institute of Nutrition	Manuel A. Cáceres Rafael Tercero	Agronomist Physician	Min. of Agriculture Ministry of Education

Participants (by country)	Profession	Organization	Participants (by country)	Profession	Organization
Nicaragua Francisco López	Teacher	Ministry of Education	OBSERVERS (BY COUNT	RY)	
Luis A. García Armando Arce Paiz	Agronomist Physician	Min. of Agriculture Ministry of Health	Colombia Marco Zambrano	Physician	Departamental Health Services
Panama			Carlos Chaparro	Physician	Ministry of Education
Sergio Pérez	Health	Ministry of Health	Flor A. Hernández	Educator	Ministry of Education
Alejandro Ferrer	Educator Agronomist	Min. of Agriculture	Gilberto Rioja	Agronomist	Coffee Producers Federation
Delia Moreno	Teacher	Ministry of Education	Antonio Guerrero	Agronomist	National Inst. of Nutrition
Paraguay			Horacio Caro	Veterinarian	National Inst. of Nutrition
Rosa Bolaños Porfirio Chamerro	Nutritionist Teacher	Ministry of Health Ministry of Education	Jaime Ariza	Physician	National Inst. of Nutrition
Bruno García de Zúñiga	Lawyer	Min. of Agriculture	José Rojas García	Physician	National Inst. of Nutrition
<u>Peru</u>			Jorge Tavera	Physician	National Inst. of Nutrition
María L. de Rueda Marino Montenegro	Social Worker Teacher	Min. of Agriculture Ministry of Education	Humberto Rodríguez	Physician	National Inst. of Nutrition
	Teacher	iminibility of Education	Alvaro Charry	Physician	National Inst. of Nutrition
St. Lucia Charles Cadet	Agronomist	Min. of Agriculture	Humberto Mancera	Physician	National Inst. of Nutrition
Trinidad and			Luis Uribe	Physician	National Inst. of Nutrition
Tobago Eunice Warner	Nutrition Educator	Ministry of Education	Ricardo Dussan	Physician	National Institute of Nutrition
J. Hamilton	Agronomist	Min. of Agriculture	Edgardo Martínez	Physician	National Institute of Nutrition

Participants (by country)	Profession	Organization	Participants (by country)	Profession	Organization
OBSERVERS (BY COUNTE	RY) (cont.)		<u>FAO</u>		
Colombia (cont.)			Henri P. Teulon	Physician	FAO, Rome
Elvia de Urrego	Nutritionist	National Inst. of	Fabián Recalde	Physician	FAO, Santiago, Chile
		Nutrition	M. Blanquie	Physician	FAO, Mexico
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Barbara Rueda	Nutritionist	National Inst. of	Nélida C. Puga	Nutritionist	FAO, Colombia
María A. Vargas	Nutritionist	National Inst. of	Clara Paesky	Nutritionist	FAO, Bolivia
Maria A. Vargas	NACT LOTORIES C	Nutrition	Jorge Bolton	Agronomist	FAO, Colombia
Hilda de Rodríguez	Nutrition	School of Nutrition	Francisco Perlaza	Veterinarian	FAO, Bolivia
	student	and Dietetics, National University	Reino Lanson	Specialist in Animal	FAO, Peru
Luz Marina	Nutrition	School of Nutrition		Husbandry	
Jaramillo	student	and Dietetics, National University	Meneke Kaiser	Nutritionist	FAO, Trinidad and Tobago
<u>Peru</u>			PAHO/WHO		
Miguel Arroyo	Physician	Ministry of Health	Abraham Drobny	Public Health Physician	PAHO/WHO, Washington
CONSULTANTS FROM INTERNATIONAL AGENCIES			Bertlyn Bosley	Public Health Nutritionist	PAHO/WHO, Washington
Esther Seijo de Zayas	Public Health Nutritionist	PAHO/WHO, Washington	Cecilio Abela	Medical Nu- tritionist	PAHO/WHO, Argentina
Igor de Garine	Anthropologist	FAO	Mario Eisler	Medical Nu- tritionist	PAHO/WHO, Peru
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UNICEF Oscar Vargas	Physician	UNICEF, Santiago,	Reinaldo Grueso	Medical Nu- tritionist	PAHO/WHO, Venezuela
Méndez Marcos Candau	Sociologist	Chile UNICEF, Colombia	Someswara Rao K.	Medical Nu- tritionist	PAHO/WHO, Brazil

Participants (by country)	Profession	Organization	Participants (by country)	Profession	Crganization
OBSERVERS FROM INT	PERNATIONAL AGENC	IES (cont.)			
PAHO/WHO (cont.)			IIO		
Joginder Chopra	Medical Nu- tritionist	PAHO/WHO, Trinidad and Tobago	Gonzalo Pezantes	Sociologist	II.O, Colombia
Deen Low	Nutritionist	PAHO/WHO, West Indies	INCAP		
UNESCO			Graciela de Canedo	Nutritionist	INCAP, Guatemala
Roberto Florez	Teacher	UNESCO, Colombia	Jaime Alvarez Zamora	Public Health Physician	INCAP, Guatemala

ANNEX V

OFFICERS

(Colombia) Roberto Rueda Williamson PRESIDENT: (Chile) Alfredo Riquelme VICE-PRESIDENTS: Manuel A. Cáceres (Honduras) Porfirio Chamorro (Paraguay) Henri P. Teulon (FAO) GENERAL SECRETARIES: (PAHO/WHO) Bertlyn Bosley (FAO) RAPPORTEUR GENERAL: Jorge Bolton (Colombia) SECRETARY: Jorge Tavera WORKING GROUPS GROUP NO. 1 (Colombia) Francisco Piedrahita CHAIRMAN: René Portillo (El Salvador) RAPPORTEUR: GROUP NO. 2 Manuel A. Caceres (Honduras) CHAIRMAN: María L. de Rueda (Peru) RAPPORTEUR: GROUP NO. 3 Bienvenido Ramírez (Costa Rica) CHAIRMAN: (Ecuador) Luis Vallejo RAPPORTEUR: GROUP NO. 4 CHAIRMAN: (Paraguay) Porfirio Chamorro

Arturo Zelaya

RAPPORTEUR:

(Honduras)