

directing council



PAN AMERICAN
HEALTH
ORGANIZATION

XVIII Meeting

regional committee

WORLD
HEALTH
ORGANIZATION

XX Meeting



Buenos Aires, Argentina
October 1968

Provisional Agenda Item 22

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21 October 1968
ORIGINAL: SPANISH

OBJECTIVES, FUNCTIONS, AND FINANCING OF THE INSTITUTE OF NUTRITION
OF CENTRAL AMERICA AND PANAMA

(Item proposed by the Government of Honduras)

Dr. José Antonio Peraza, Minister of Public Health and Social Welfare of the Republic of Honduras, in his capacity as President of the Central American Public Health Council, addressed the letter dated 20 September 1968, a copy of which is attached to the Director of the Pan American Sanitary Bureau, with the request that the subject "Objectives, Functions and Financing of the Institute of Nutrition of Central America and Panama" be included in the agenda of the XVII Meeting of the Directing Council of the Pan American Health Organization, XX Meeting of the Regional Committee of the World Health Organization. This request is in compliance with Paragraph 6 of Resolution VIII approved by the Central American Public Health Council at its last Meeting.

The Director of the Pan American Sanitary Bureau accordingly submits the proposed item for the consideration of the Directing Council. It is suggested that the attached document serve as basis for its discussion.

Annex

(TRANSLATION)

Tegucigalpa, D.C., September 20th, 1968

Communication No. 2-68

Dr. Abraham Horwitz, Director
Pan American Health Organization
Pan American Sanitary Bureau
525 Twenty-Third Street, N. W.
Washington, D. C. 20037

Dear Dr. Horwitz:

As you know, the XIX Meeting of the Council of the Institute of Nutrition of Central America and Panama (INCAP) was held in Guatemala on 5-10 August 1968. During the proceedings of the Meeting a Resolution (VIII) was passed, paragraph 6 of which reads as follows: "To request that the Director of the Pan American Sanitary Bureau, as a means of ensuring an adequate level of stability and development of the Institute of Nutrition of Central America and Panama, explore the possibility and advisability of transforming it into an organization of wider scope, having more direct responsibilities with regard to the remaining countries of the Continent." A copy of the Resolution is attached herewith.

The Proceedings of the Council were submitted for the consideration of the II Ordinary Meeting of the Central American Public Health Council, XIII Meeting of the Ministers of Public Health of Central America and Panama which was held in Tegucigalpa, Honduras, on 15-17 August 1968, and at that Meeting Resolution VIII, which is also attached, was approved.

In view of the above, I should be obliged if you would take such measures as you deem appropriate to include this subject in the agenda of the XVIII Meeting of the Directing Council of the Pan American Health Organization to be held in Buenos Aires, Argentina, as from 21 October 1968.

I should be most grateful for your attention to this request, and assure you of my highest consideration.

Dr. J. Antonio Peraza
Minister
President of the Central
American Public Health Council

cc: Secretary General ODECA,
Dr. Albino Román y Vega

OBJECTIVES, FUNCTIONS AND FINANCING OF THE
INSTITUTE OF NUTRITION OF CENTRAL AMERICA AND PANAMA

OBJECTIVES, FUNCTIONS AND FINANCING OF THE
INSTITUTE OF NUTRITION OF CENTRAL AMERICA AND PANAMA*

INTRODUCTION

In addition to its direct advisory responsibilities towards its six member countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama), and in order to adequately fulfill them, the Institute of Nutrition of Central America and Panama operates as a research and training center in the field of human nutrition. These are two of the main functions of INCAP that, as an international scientific organization, was created to study the region's nutritional problems, to seek means for their solution and to assist and advise member countries in the effective application of the measures recommended for this purpose.

In its triple international function of research, training and service in the field of nutrition, INCAP carries out its

* Working Document CD 17/23, Addendum I, presented at the XVII Meeting of the Directing Council of the Pan American Health Organization held in Port of Spain, Trinidad and Tobago, October, 1967, served as basis for the preparation of this Report.

activities under the administrative direction of PAHO/WHO, Organizations whose main purpose is to respond with increasing emphasis to the growing demands of its Member Countries in regard to guide and assistance in the nutritional aspects of their respective health programs.

The research activities of the Institute are oriented towards the study of the nutritional problems of the area and the finding of practical means for their solution. However, most of the problems and conditions inherent to Central America are not unique for the region but, indeed, are common or very similar to those prevailing in most of the Latin American countries as well as in other large areas of the world. Therefore, the research activities of the INCAP are of value not only to its member countries but also to all of the other regions that can benefit from them. As exemplified in the following paragraphs this has already been the case in many instances. It is also the reason why the training programs of INCAP have such a large demand and are utilized by students that arrive at the Institute from many countries outside the Central American region specifically for this purpose.

It is of course difficult, and in some areas impossible, to quantify the utilization of the INCAP's services by indi-

vidual countries or regions. One of the main obstacles lies in the fact that although such services are available, its utilization by different countries may vary in relation to their interests and other factors inherent to the countries themselves.

Another limitation is the subjectivity in evaluating the utilization of services both in the research and training fields. In the case of research, for instance, it is not always apparent when basic information obtained from studies in one place is utilized to develop further work on the same or similar fields in other places. As far as training is concerned, the number of students that have participated in these programs is not enough to quantitate benefits derived from it, because the training of one key person may be of greater value to a given country than the training of ten persons with lower responsibilities or less capability for applying the knowledge and experience acquired.

In spite of this situation, and recognizing the inevitable limitations, an attempt is made to illustrate, as far as possible quantitatively, the utilization of the INCAP's contribution outside the area of Central America and Panama.

RESEARCH ACTIVITIES

A brief outline of the main areas of research in which the Institute has worked or is engaged in at present will give a basic idea of the importance of this work to non-member countries, particularly to all Latin American countries. These are:

1. Methodology for the diagnosis of nutritional problems in population groups.
2. Epidemiology and methods for prevention and treatment of the following nutritional problems: a) protein-calorie malnutrition; b) vitamin A deficiency, and c) endemic goiter.
3. Relationships between infectious diseases and nutritional deficiencies.
4. Etiology of the anemias frequently found in malnourished populations.
5. Etiology of diarrheal diseases in children and their relationship with nutrition.

6. Effects of chronic states of malnutrition on mortality, morbidity, growth and development of children and on the working capacity of adults.
7. Epidemiology of atherosclerosis, with special emphasis on the role of dietary factors.
8. Methods for improvement of the nutritional value of conventional foods.
9. Methods for more efficient production and/or utilization of foods of high nutritive value.
10. Development of non-conventional foods prepared with locally available products, that could be practical sources of essential nutrients which are deficient in the diets of large population groups.

The information obtained from these research studies is made known through publications in scientific journals of wide distribution, in both Spanish and English. To date 416 papers have been published in Spanish and 466 in English. Furthermore, the INCAP also distributes throughout the world and on a very wide scale, reprints of its scientific articles, special monographs and many other technical publications.

The results of its research work are also reported at national and international meetings in which staff members participate and who contribute their experience as members of important technical committees, the work of which has considerable international repercussions. In addition, INCAP's professionals have teaching responsibilities in universities outside the area, mainly in the U.S.A. or in other international training programs. Some of them are members of the editorial boards of scientific journals, and have served as consultants to other areas of the world.

As specific examples of the utilization of some of the INCAP's research work outside Central America and Panama, the following can be mentioned:

1. Application of methodology developed at the INCAP for the conduct of nutritional surveys in many countries of the world.
2. Utilization of the methods recommended by the INCAP for the treatment of severe forms of protein-calorie malnutrition (kwashiorkor and marasmus) and for prevention of these pathologic conditions.

3. Application of the method for iodizing crude moist salt with potassium iodate, instead of potassium iodide, as a practical and effective measure for the prevention and prophylaxis of endemic goiter in areas where common kitchen and table salt is not refined.

4. Utilization of the vegetable mixtures developed by the INCAP, either as such, or by applying its principle to the development of similar mixtures. In this regard, it should be stressed that all of these mixtures follow closely the orientation that the INCAP has already proved to be applicable: the usage of available low-cost raw materials - which frequently are non-conventional sources of nutrients - for the preparation of foods adapted to the dietary habits and buying capacity of the populations for whom they are intended and which can correct prevailing nutritional deficiencies.

Because of its particular importance and actuality, and because it is relatively easier to quantify its impact throughout the world, a more detailed description is given on the contribution of the INCAP through its research program on vegetable mixtures. As early as 1957, the INCAP staff started reporting on their basic research activities leading to the

development of feasible low cost protein-rich vegetable mixtures. This was done through scientific publications, wide discussions at various international scientific meetings and also through the press. This early research stimulated much of the initial interest in the possibility of utilizing vegetable sources of proteins in acceptable mixtures suitable for commercial application as a device for relieving malnutrition in the developing countries. Since those first publications, the Institute has been called on to render many services to Governments, private and public organizations and interested individuals in many countries other than those of Central America and Panama.

Prior to 1959, information, mostly through correspondence was provided to interested persons outside the INCAP area. Additional papers were also published reporting on the biological and clinical evaluation of the experimental mixtures which later became known as Incaparina. With the initiation of the INCAP's program for the commercial application of the mixtures in 1960 further interest was generated in the concept through both popular and scientific reports which received wide circulation.

In that year, precisely, several technical and popular articles were published on the subject of vegetable mixtures

and the product was discussed extensively in various scientific meetings. During the XII Annual Meeting of the Directing Council of the Pan American Health Organization in Havana, in August, 1960, all participating Governments resolved to support the production and distribution of vegetable protein mixtures in their respective countries. As Incaparina was then the only product of its kind, ready for commercial application, this action by the PAHO greatly stimulated interest throughout the Western Hemisphere and also in other areas of the world. This interest has not only continued, but has intensified as the magnitude of the need for such mixtures has grown.

Naturally, all of the INCAP departments and staff have been involved in carrying out the promotional aspects of this program, through consultation with interested parties, preparation of articles for publication, oral presentations, etc. However, as the load of work increased during 1960, the part-time services of an economic consultant to assist with the program were obtained. In 1961, this became a full-time project with the addition of the Economic-Industrial Adviser to the INCAP professional staff. Primary responsibility for the commercial application of the INCAP vegetable mixtures has rested with this staff member, and it is estimated that 50%

of his time has been devoted since then to work outside of the INCAP area.

For purposes of analysis the services rendered to Governments, organizations and individuals outside Central America have been classified according to the following detail.

Correspondence resulting from inquiries

This has ranged from a single letter providing the basic data requested, to many cases where a long series of correspondence has continued over many months. Frequently, the latter type of correspondence has resulted when an interested party desires to make a complete study of the applicability of the vegetable mixtures to a particular region or country. In some cases this has later resulted in visits of the interested persons to the INCAP, trips of the Economic-Industrial Adviser to the country, and possibly lengthy negotiations that eventually have materialized in the production and distribution of the product in the country. Summarizing, since July 1958 until July 1968, correspondence with regard to Incaparina has been conducted with 1,098 individuals from 49 countries all over the world (745 from 22 countries of the Western Hemisphere, exclusive of the INCAP area, and 353 individuals of 27 countries outside the Western Hemisphere).

Consulting services at the INCAP

A total of 171 persons from 18 countries outside Central America and Panama visited the Institution for consultation regarding the commercial application of the INCAP's vegetable mixtures: 161 of these contacts were from the Western Hemisphere, and 10 from other parts of the world.

These consultations ranged from brief visits of a day or less, to extended periods of several days. Frequently the longer visits required the full-time attention of the Economic-Industrial Adviser and other INCAP professional staff as well as the need to take the visitor to confer with the Guatemalan Incaparina producer and trips to various sections of the country in order to evaluate the marketing and use of the product.

Consultation in the countries

Since 1961 the Economic-Industrial Adviser has been called upon to make trips to Colombia, Venezuela, Peru, Mexico, the West Indies and the United States, in addition to his travel within the area. With the exception of Peru more than one trip has been required in order to meet the needs of the Incaparina program as it has developed therein.

Analysis of raw materials

The INCAP does not charge authorized Incaparina producers for the various analyses which must be made to control the quality of the vegetable mixtures. Also, no charge is made for other laboratory services of this type which are provided to assist Governments and others interested in the program, to determine if suitable ingredients are available locally.

Informative materials

Because of the volume of inquiries received from English-speaking countries, it was decided in 1962 to prepare and print a general booklet describing the development and commercial application of the vegetable mixtures. This booklet was revised and reprinted in May, 1965. It is estimated that about 75% of the Spanish version of this booklet has been distributed in the Western Hemisphere outside the Central American area.

The INCAP's pioneering efforts have obviously been an important factor in the development of similar mixtures now underway in many countries throughout the world.

TRAINING ACTIVITIES

In spite of the limitations indicated in the introductory remarks, the only way by which the services of the INCAP to different countries in this particular area may be quantitated, could well be the number of students that have received training at the Institute. Table 1 summarizes these numbers.

TABLE 1 - Number of persons trained at the INCAP during the period 1950 - 1968*

Member Countries	380
Other Latin American Countries	251
U. S. and Canada	110
Other Regions	62
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Total	803

* Calculated to September, 1968.

The training programs of the INCAP have had a definite multiplying effect on the extension of the knowledge and experience that the Institution has acquired through its 19 years of work. This factor has also definitely influenced the

wide range of the nutritional programs - primarily those of application and of training that have been or are being implemented - in particular in Latin America, but also in other areas of the world.

Within the INCAP's training programs that have been more widely utilized by all the countries in the Western Hemisphere, the following should be mentioned: the Public Health Nutrition Course for physicians and other professionals; the Specialized Course in Applied Nutrition for Latin American Dietitians (CENADAL), and its tutorial teaching programs.

In addition to the students that arrive at INCAP for formal training, a great number of visitors (Table 2) are acquainted with its work. Many of them return to their institutions or countries, with the capacity to apply experiences or knowledge developed at the Institute.

Through its nutrition education pamphlets, quarterly informative bulletin, annual reports, and many other documents of technical character, and through its continuous flow of scientific articles, the Institute of Nutrition of Central America and Panama endeavours, within the limits imposed by economic and other conditions, to make available to the world

at large, the findings of its research and the results obtained in other fields of work. In this regard it may be of interest to state that around 10,000 requests for reprints of scientific publications from all around the world are received annually at the INCAP, and that more than 1,000 informative bulletins are distributed on a quarterly basis.

TABLE 2. - Number of persons that visited the INCAP during the period 1964 - 1967.

Member Countries	944
Other Latin American Countries	283
U. S. and Canada	210
Other Regions	110
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Total	1,547

FINANCING OF THE INCAP

The INCAP started operations in 1949 with a budget based on annual quotas from the six member countries of \$ 8,500 (U.S. dollars) each, and on the financial aid provided by the Pan American Sanitary Bureau. The latter covered mainly the salary of the Director, who also acted as Regional Adviser in Nutrition of the PASB.

As the INCAP program developed, its budgetary needs also became greater. For this reason the Member Countries started to progressively increase their annual quotas until these reached the actual amount of \$ 62,424 per country. The PASB, on its part, also increased its financial aid to INCAP so that in 1965 this reached the figure of \$ 188,591, mainly through the payment of salaries of staff members included in the PASB budget and assigned to the INCAP. Based on the multiple benefits derived from the INCAP's work by the Continent's countries outside the Central American region, the Directing Council of the Pan American Health Organization, approved in 1966 an additional amount of \$ 200,000 per year, as a direct contribution of PAHO to the Institute's budget. Thus, the Organization reached its actual annual contribution of around \$ 400,000.

Another important source of income for INCAP have been the grants-in-aid received from private foundations and governmental agencies of the United States of America, destined mainly for support of the Institute's research work. This part of the INCAP's budget that has allowed the development of its research programs reached the figure of \$ 1.2 millions per year, that is, more than 60% of the total budgetary provisions of INCAP. Evidently, this situation reflects faithfully the confidence gained by INCAP as a scientific center. Undoubtedly, however, it is very inconvenient to depend on these grants as an important financing source, since such funds are always granted on a short-term basis. Consequently, their maintenance requires tremendous administrative and burocratic efforts. Furthermore, for reasons that have nothing to do with the interests, needs, and capacity of the Institute, these grants are liable to unexpected cuts. The risks implied by this course of action have been felt in the latter years, particularly in 1968 when, for reasons of the external policy of the U.S., the grants that INCAP had been receiving were drastically cut. The perspectives for the coming years are even more serious, and this state of affairs has provoked a crisis that severely handicaps the working possibilities of the Institution.

The proposed budget for 1969 and its different financing sources is summarized in Table 3. As the figures show, in spite of the fact that the working program was considerably reduced, limiting it to the most indispensable actions so that INCAP may continue to operate efficiently, a proportion of the budget still remains without funds. This was one of the reasons that led the Directing Council of INCAP and the Ministers of Public Health of Central America and Panama, as members of the Central American Public Health Council, to request from the Director of the Pan American Sanitary Bureau, to explore the possibilities that INCAP be transformed into an Organization of a wider scope, with actions and responsibilities discharged at a continental level, as a means of insuring its stability and of maintaining and increasing its services to all the countries of the Hemisphere.

TABLE 3 - Proposed INCAP budget for 1969 and financial sources.

1. Member Countries quotas	\$	374,545
2. Pan American Health Organization		433,057
3. Grants		530,925
4. Other income		21,000
5. Unassigned		400,031
Total	\$	1,759,558

PRESENT RESOURCES AND POTENTIALITY OF SERVICE

INCAP central offices and laboratories are located in the outskirts of Guatemala City. The central buildings, consisting of several units, house the Director's offices, other administrative sections, and excellently equipped laboratories for work in physiological chemistry, agricultural and food sciences, clinical research, microbiology, hematology, and physiology. There are also facilities for studies with experimental animals; statistical laboratories with electronic computing facilities; a spacious auditorium, conference rooms, classrooms and teaching laboratories for its academic programs; an audiovisual aids service, printing, photography, mechanics, and carpentry shops, store rooms, a cafeteria, transportation system, etc. etc. In addition, there is a well equipped clinical center for clinico-metabolic studies in hospitalized patients, with 16 beds for children and 10 for adults, and other facilities.

The Institute's library is one of the most complete of Latin America in nutrition and its allied fields. It contains approximately 12,000 volumes, including an excellent collection of bound periodicals, textbooks and other kinds of reference

material. There is also a collection of over 23,000 reprints of selected articles on nutrition and related disciplines from all over the world. This material increases constantly and, at the present time, more than 340 scientific journals are received.

Furthermore, INCAP has a 180-hectare experimental farm, only one hour away from its headquarters. The Institute considers it of inestimable value for nutritional studies on barnyard fowl, hogs, sheep, and dairy cattle; and for agricultural experiments devoted to the improvement of basic crops.

Field stations located in several rural villages of Guatemala are equipped with all the necessary conveniences for the development of the epidemiological studies carried out therein. Those requiring it also have facilities to house personnel living in these communities.

Construction for buildings destined to serve as a rural training center has already been initiated. Besides adequate living facilities at the center, students will also be able to carry out duly supervised work and the necessary field practices.

However, the most valuable asset of INCAP lies in its professional staff members and technicians. This personnel has been carefully selected and formed throughout 19 years of continuous effort. The INCAP, at present, has 50 professionals and 174 subprofessionals, which form part of its total staff of 224 members. The key staff includes physicians specialized in nutrition, public health, pediatrics, internal medicine, physiology, hematology, and pathology; biochemists specialized in food sciences and human and animal nutrition; microbiologists, biostatisticians, nutritionist-dietitians, agronomists, economists, psychologists, pedagogues, etc. etc. These professionals were formed at the highest academic level in centers of recognized prestige. This fact, together with the experience gathered in the course of their work at the Institute, has qualified them to the point that many have achieved world recognition as experts in their various fields of interest.

As indicated in preceding pages, since its establishment INCAP has been serving all of the countries in this Hemisphere. With the support of the Pan American Sanitary Bureau, under whose administration it has always operated, the Institute is now capable of extending those functions of cooperation and service to all the Continent countries. Therefore, its present

material and human resources would allow INCAP to serve efficiently as a Pan American training and research center in nutrition and allied disciplines, cooperating with the national institutions that fulfill those functions, and expanding the advisory and service facilities of the Pan American Sanitary Bureau and of other international and national organizations working in this field.

As a multinational organization with continental responsibilities, the INCAP would be a scientific and technical resource in the field of nutrition. Cooperating with the national nutrition institutes, the nutrition departments of the universities and other governmental services and agencies with similar activities, the INCAP would help complement the resources of each one of the Continent's countries. This would apply mainly to the training of high level specialized personnel and in regard to research programs oriented to intensify knowledge on nutritional problems and their responsible factors, as well as to the search of practical solutions for their correction. Furthermore, with its technical and professional personnel, as a program of the Pan American Health Organization, INCAP would strengthen the PASB's resources in nutrition, since it would expand its capacity to satisfy the

needs for advisory services and collaboration that the countries require for the development of applied nutrition programs.

The INCAP would carry out these functions under the administrative direction of the PASB following the general policy and programming set forth by the directing bodies of the Bureau. These would imply both the programs developed in its own central laboratories as well as the mobilization of personnel required to collaborate at country level in those programs needing direct services in the field.

This system would also allow a greater interchange of knowledge and experience. Its results would evidently be a better utilization of continental resources of general benefit and a more rapid progress of the nutrition studies and programs in all the American Continent countries.

In this case, that is, if INCAP were established within the PAHO as a continental service center, it would naturally have to redefine the priorities of its research and training programs. Of course, this would be done in agreement with the needs of the Continent's countries, and those of the responsible national institutions with which it would collaborate in

a more direct manner than it has done up to the present moment.

In this way, the INCAP would be able to contribute even more effectively towards the solution of the nutritional problems that affect great population sectors in all the countries of the Western Hemisphere.