

FOOD AND NUTRITION: THE WORK OF THE INTERNATIONAL AGENCIES IN LATIN AMERICA¹

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The purpose of this article is to try to obtain a clearer picture of the role the international organizations should play in the study and solution of problems of food and nutrition in Latin America. One of its recommendations is the establishment of a Latin American Center for information on nutrition, an idea taken up recently at the Special Meeting of Ministers of Health of the Americas.

In terms of the human values underlying all activities aimed at satisfying individual needs more fully, Latin America can be regarded as a single whole. But there are great drawbacks the moment we try to devise specific programs involving rational priorities; we then find that Latin America is like a patchwork quilt, the only common framework of reference being the geographic proximity of the countries within one and the same continent. There are vast differences between them in degree of national integration; levels of development and stability of institutions; human and financial resources; population make-up; degree of industrialization; level of education of the broad masses of the population—to cite only a few characteristics—so that the region as a whole cannot properly be regarded as a single social, economic, and cultural entity except in the widest sense of the term. Latin America's common market prospects no doubt suggest greater economic homogeneity, but there is still a long way to go in this direction. What is more, other cultural and social factors likewise come into play in fixing priorities for the allocation of resources for national planning.

With these reservations in mind, let us examine the role which the international

agencies can play in regard to food and nutrition in the Latin American region.

Until recently, the stock opening for a study of this kind was to point out the distressing shortage of trained personnel capable of carrying out nutrition and feeding programs—in fact, in certain areas there was hardly a single individual to be found who had the necessary training. The inference then drawn was that professional personnel must be trained as a first, basic prerequisite for carrying out programs in the future. Once this priority was laid down, the primary task of the international agencies was to provide funds for professional training and to arrange for professional workers from other countries to be sent in to make up for the shortage of national professional workers or to begin to cope with the more urgent needs.

Under the direction of international consultants working in this way, their national counterparts completed their training on the spot, and together they embarked on an applied program, sponsored as a rule by the international agencies. The program, circumscribed within a small geographic area, was designed to throw light on local nutrition problems, and great experience was gained in the administration of whatever resources were available. At the same time, these pilot projects served for the training of professional and subprofessional personnel within the country itself.

It would be most unfair not to give full credit to these activities, through which the

¹Presented at the First Congress of the Latin American Society of Nutrition, held at Caracas, Venezuela, from 1 to 5 September 1968; subsequently published in Spanish in *Boletín de la Oficina Sanitaria Panamericana*, Vol. LXVI, No. 1 (January 1969), pp. 26-36.

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international agencies aroused the interest of Governments and individuals in nutrition and feeding. Thus the subject acquired a new dimension as both the vast scope of the problem and also the manifold causes underlying it were revealed. Contacts, superficial in many cases, between professionals working in fields as seemingly unconnected as economics, public health, education, and agricultural extension, brought out the need for coordinating their different activities and formulating joint plans.

The effect of all this effort by the international agencies and the first national workers in the nutrition field is extremely difficult to measure in quantitative terms, if only because no norms for evaluating programs were established at the outset. But it is fair to say that the policy initiated by the international agencies and followed up by Governments and non-governmental institutions has been a resounding success, in terms of the number of professional and subprofessional workers thus given an incentive to devote themselves to the study and solution of nutrition problems, of individuals who started out in this way and are today occupying high executive posts, teaching nutrition in professional schools or working as full-time researchers in institutions devoted to the study of nutrition problems; and in terms of the new institutions set up in various government departments. The net result has been to overcome the initial obstacle to progress by coping in some measure at least with the shortcoming common to all pre-industrial societies, namely, the lack of trained personnel with sufficient experience to make use of the resources available.

The international agencies have awarded both fellowships for the training of professional personnel and travel grants. The latter have given professional workers, who tend to work in isolation, a better understanding of their problems and have helped them to assess the value of the work they are doing by observing that done by other scientific workers and studying methods and procedures applied in areas other than their own. In other words,

travel grants encourage the coordination of attempts to apply different or complementary measures.

Other schemes used widely, both in the past and at present, include committees of experts, study groups, and regional conferences.

The purpose of committees of experts and study groups is to coordinate the information to be found in many different parts of the world, to promote action programs where effective control mechanisms already exist, and to encourage scientific research into problems insufficiently understood as yet. Since experts need not be invited as representatives of their Governments, but in an individual capacity, the accent is on cooperation by scientific workers who, for various reasons, do not belong to official bodies in their home countries.

It is a demonstrable fact that many of the recommendations made by such committees have been adopted and implemented, and this is true of most of the Latin American countries. A case in point is that of the committees set up to make recommendations and determine requirements in regard to nutrition.

Regional conferences have proved to be another useful device for giving added weight to the recommendations and conclusions of committees of experts and study groups. Further valuable achievements have been to pinpoint the particular problems which should have top priority and to indicate the quickest and most economical means of solving them effectively within the limits imposed by scarcity of funds.

Finally, mention must be made of the assistance given by the international organizations in setting up, consolidating, maintaining, and developing institutions specializing in nutrition and food matters—activities no less important than those mentioned so far. National institutes or departments of nutrition in various countries have been given aid in the form of consultants, equipment, fellowships, and travel grants, as well as through the financing of programs and scientific publications. Such bodies, set up usually for teaching and research, but also occasionally for the promotion of nutrition and feeding programs,

have received or are today receiving help varying from a single fellowship to half or more of their total budgets. The return on this investment has been excellent: a great many institutions have not only expanded the manpower resources needed to serve their own countries, but have also assisted other countries in training personnel at various levels and in studying basic problems; and in not a few instances, through their permanent staffs, they have helped to solve the problem of the international organizations' increasing need for more and more consultants.

Through these various means—short- and long-term consultants, fellowships and travel grants, committees of experts, study groups, regional conferences, and direct financing of personnel and programs—the international agencies have helped to bring home to the Latin American Governments the true significance of food and nutrition as a national problem.

The concept of nutrition problems, which at one time was regarded as essentially a medical and welfare matter, has expanded to include an awareness of the multiple nature of their causes, and ultimately to enlist the participation of widely differing disciplines in nutrition plans and schemes. The importance of all this must be assessed today, not simply in terms of the health of the individual, but essentially in the light of its historic importance for the community and the possible effects of malnutrition on the physical and mental productivity of the community, in other words the way in which it advances or retards economic and social development.

Now that more and more Latin Americans are rendering or have rendered services as consultants of international agencies, and now that the initial problem has been satisfactorily solved, at any rate in the majority of the countries of the region, the next logical step would be to discuss what is the role that such agencies should play.

Nutrition and feeding programs, and the activities they involve, are many and varied. A rough idea of their scope may be gained by dividing them into seven broad areas of services,

as set forth below in the form of questions which the national nutrition services of the countries might be asked to answer before formulating their over-all programs.

1) *Nutritional and health status of the community*

Is sufficient information available concerning the nutritional status and the food habits of the groups living in the area?

How much is known about the health status of the people, bearing in mind that nutrition is an integral part of health?

2) *Availability of food*

How much is known about the food available at the various seasons of the year?

About food production techniques?

About the yield of food crops, etc.?

About marketing conditions?

About the diseases, etc., affecting foodstuffs?

About other causes of loss?

About the nutritional value of foodstuffs available at each different season of the year?

What is the purchasing power of families in the various social and economic strata?

Should supplementary feeding programs be set up for certain groups, e.g., pregnant women, growing children, tuberculosis patients, and others?

3) *Legislation*

Are there sufficient safeguards against food contamination and adulteration or against fraudulent advertising?

Is it necessary to add nutrients to foodstuffs, e.g., iodized salt or enriched bread or margarine, or to undertake water fluoridation?

4) *Education of the public*

Is adequate nutrition education provided for all groups—children, parents, industrial workers, etc.?

Who is providing it and how is it being presented?

Is it to the point, relevant, and appropriate to those for whom it is provided?

Does it really get through to them?

Does it actually induce them to improve their nutritional standards?

5) *Professional training*

Is suitable training in nutrition and food matters available to the professions that need it—doctors, dentists, nurses, schoolteachers, social workers, agronomists, economists, legislators, etc.?

Do those responsible do the job sufficiently effectively?

6) *Facilities for treatment*

Are there sufficient clinical facilities for the diagnosis and treatment of nutritional deficiencies?

Is there an adequate nutrition service to provide medical care for crippled children, pregnant women, overweight persons, and patients suffering from chronic diseases?

Is full use made of these facilities?

7) *Group feeding*

How are special groups fed in small hospitals, children's homes, day nurseries, correctional institutions, cafeterias, homes for invalids, rest homes, industrial canteens, people's canteens, etc.?

A mere perusal of this list makes it quite clear that in every area of service it is essential to have one or more specialists. Possibly a first priority at the present time would be to compile a professional register which could be used for determining what type of consultants would be needed, and for how long, to meet the more urgent requirements. It could also be used for determining the type and numbers of professional workers who need to be trained and the length of time it would take to train them. Such a manpower register would have to be kept constantly up to date, possibly with the help of information sent to the nutrition services by universities and other training centers.

It may of course be difficult to detach professional personnel who are already engaged in programmed activities, yet at the same time the degree of efficiency of registered personnel has to be assessed; hence it might be advisable to put this in the hands of an international consultant. The manpower register might thus be one of the functions undertaken by the international agencies. If these agencies had national registers at their disposal, they could produce regional registers and possibly even a world list which would be helpful in selecting and dispatching consultants in various fields to countries needing them. No less important is to ascertain the number of professional workers in each branch, with particulars of the place where they work and the precise government or private sector post they occupy. This would

help the international agency to avoid taking on professional workers vitally needed for national development programs and thus depriving a country of its scarce personnel trained at the executive level.

The last 15 years have not only witnessed remarkable advances in the knowledge of nutrition problems and the various ways in which they can be solved; at the same time there has been a tremendous increase in the number of publications relating to the science of nutrition proper and the kindred disciplines on which it is based. This has revealed the complete inadequacy of the traditional procedures for storing and transmitting knowledge. *Books* digesting knowledge, *schools* teaching the knowledge accumulated over generations, *libraries* for storing and disseminating knowledge, *films* and *television* for the visual display of knowledge, *periodicals* and *journals* for the written communication of the latest advances in specialist fields, and *lectures* for the oral communication of information—all these media, effective though they may be, are inadequate to cope with the present needs of workers and institutions engaged in the study and application of the science of nutrition.

Some of the more important factors which explain this inadequacy are the following: (1) the extremely rapid advance of science, which renders the previous knowledge largely obsolete; (2) the speed of technological change, which makes it necessary for the former graduate to return to school to refresh his skills; (3) the growing numbers of scientific workers; (4) the increasing trend toward specialization, which makes the communication and exchange of information between the various disciplines more and more difficult; (5) the constant shortening of the time between publication of the findings of basic research and its application. The consequence of this is a more and more urgent need to make the latest information immediately available in a form suitable for application. All these factors hamper communication, produce duplication of effort, and hold up progress.

The logical solution of the problem is of course a system for tracking down information at its place of origin, assembling it, storing it, interpreting it, transmitting it, processing it, and evaluating its usefulness. The scientific information center would thus not be just a library or a mere system of reference and documentation, but a service and research institution through which countries would have at their disposal, at various levels of complexity, all the existing information on which to base their applied programs, their general and specialized teaching, and their scientific research.

The international agencies could play a vital part in this, first of all by drawing up an inventory of the data available on the subject. Efforts in this direction are being made on one subject at least (protein-calorie malnutrition) by the Caribbean Food and Nutrition Institute, which operates under the auspices of the Pan American Health Organization (PAHO) and the United Nations Food and Agriculture Organization (FAO), with Dr. D. B. Jelliffe as director. As a complement to this activity, financial aid might well be granted to the journal *Revista Latinoamericana de Nutrición*. However, the most important step that could be taken would undoubtedly be the establishment of a Latin American Institute for scientific information on food and nutrition, as a joint effort by the international organizations.

The functions of such an Institute might be:

- 1) The study of the need for information in the area; existing types of information, types of users, and patterns of communication.

- 2) The evaluation of the effectiveness of the information used.

- 3) The compilation and processing of documentation, including computerization, microfiches, registration and storage, retrieval and publication of information.

- 4) Translation services from other languages into Spanish and from the specialist level to other levels of comprehension in nontechnical language.

- 5) Arrangements for the production of abstracts, indexing, and compilation of manual and machine codes.

- 6) Specific research in the field of scientific data, e.g., into the characteristics and behavior of the information produced, the forces govern-

ing the flow of information in the area, and methods of handling the data available, evaluated in the light of their effectiveness in bringing the information within easy reach and making the best use of it.

The efforts by national and international bodies are being wasted for want of adequate information made available at the time when it is needed; this could be remedied if such an information center were established. An illustration of its possible usefulness can be seen in a limited sphere by observing the computerized bibliographic reference services of the National Library of Medicine of the United States of America, which saves every user hours and hours of searching out and checking of bibliographic references.

Apart from this, it would be a tremendous boon to all food and nutrition workers in Latin America to have accessible a complete bibliography of what they need to study to be as well informed as if they had just completed a refresher course. If the many professional workers trained at the cost of much effort by countries and international bodies are to maintain a high degree of efficiency, they need to be kept fully abreast of the advances and applications of the science of food and nutrition at any given moment. This can only be done through a modern, mechanized system which will keep specialist professional workers in the field of information sciences supplied with basic and applied knowledge in a language which the individual nutrition worker can understand and at the time when he needs it.

It is clear that the proposed Latin American Center or Institute for nutrition information would not render either the committees of experts or the working groups unnecessary. But it is equally clear that the time wasted by these could be drastically curtailed if they had the information they need at their disposal at the right time. Anyone who has had to prepare a basic document for one of these committees will bear witness to this. No one person today can cope with all the data published daily in the scientific periodicals, not even within his own field; and it is not uncommon to find that much basic information is published in

specialist journals in fields quite different in name from the expert's own discipline.

It is a recognized fact that we have access today to all the knowledge which would seem to be necessary for eliminating the main deficiency disorders prevalent in Latin America—protein-calorie malnutrition, endemic goiter, vitamin A deficiency, and iron deficiency anemia. The physiopathology of these disorders is well known, as is the treatment and prevention in individual cases. However, at the community level, preventive measures have not produced the spectacular results that might have been expected at first sight. The fundamental reason for this is that specialized knowledge is lacking in social science and education. Some of the more obvious answers we need to know are how to provide people with the incentive to adopt practices which are good for them; how to inculcate education through the various channels, normal or special, available to the community; and how to assess research findings in terms of efficient return per unit of investment. For example, in regard to nutrition administration in the public health field, we do not know how efficient are the five fundamental instruments of health policy, namely, the number of individuals saved from malnutrition or recovering from its effects as a result of medical consultation; visits in the home; sanitary inspection; hospitalization; and supplementary feeding. It is not the intention here to go deeply into this aspect of the matter; all we wish to do is to emphasize that the lack of this knowledge largely explains our present inability to obtain the best returns.

Two types of specialists would seem to be urgently needed for nutrition as applied to communities; experts in the social sciences and education, and specialists in planning.

The international agencies could help countries to train such professional workers by awarding fellowships and travel grants. It is most encouraging to learn that a department established recently within one of the United Nations specialized agencies—the Food Habits Section of FAO—has a social anthropologist as its chief. It is to be hoped that this example will

be imitated elsewhere and that professional workers already qualified in the social sciences or in nutrition will undertake the studies needed to train them in this very basic subject of applied nutrition.

We have already seen that in the field of nutrition, wherever the training of experts in the chemical and biological sciences has been really first-class, they have made an invaluable contribution to the subject. An example on a world scale is the Institute of Nutrition of Central America and Panama (INCAP), which is administered by the PAHO. The time has come when the international agencies, while not ceasing to assist with this type of professional training, can make a further vital contribution by promoting and financing the training of personnel of comparable academic level in the social sciences and education. Without such professional workers, all the efforts and the brilliant achievements of their colleagues working in biochemistry, microbiology, food technology, etc., are bound to fall far short of their practical targets. As Pasteur said, there is no greater satisfaction for the scientist than to make discoveries, but the cup of joy is filled to the brim only when his discoveries are put into practical application.

It seems likely that the role of the international agencies in the field of food and nutrition in Latin America over the next few years might well be focused on three main objectives: (1) the training of high-level professionals in various branches of the social sciences and education, including food and nutrition planners; (2) the establishment of a Latin American register of professionals specializing in the various branches of food and nutrition; and (3) the establishment of the Latin American Center for scientific information on food and nutrition.

Summary

Until recently the food and nutrition activities of the international agencies have concentrated mainly on providing trained personnel to meet the most pressing needs. Other contributions have been fellowships and travel

grants, expert committees, study groups, and regional meetings. All these activities have served a valuable purpose. But the approach today is more all-embracing.

Seven broad areas should be taken into account in formulating national nutrition programs: (1) the community situation; (2) availability of foodstuffs; (3) legislation; (4) education of the public; (5) professional training; (6) facilities for treatment; and (7) group feeding. Specialists are needed to cope with the problems in each of these areas. One of the priorities of the international agencies might therefore be the preparation of a register of professional nutrition workers showing the type of consultants available and the time they could devote to providing service. Once national manpower registers had been prepared, regional and perhaps even a world register could

be compiled, thus facilitating the selection and recruitment of consultants.

International agencies could also greatly help to solve the complex problems of scientific communication by organizing systems for the location, collection, storage, retrieval, interpretation, transmission, processing, and evaluation of information. This could best be done through the training of high-level professional nutrition workers; the compilation of a register of nutrition specialists; and the establishment of an institute of scientific information on food and nutrition for Latin America. The main functions of such an institute would be: (1) the study of information needs; (2) evaluation of the effectiveness of the information used; (3) documentation and processing, computerization, data retrieval, etc.; (4) translation; (5) preparation of abstracts; and (6) research on the handling of scientific data.