The last few years have seen the unfolding of a sincere desire on the part of the developed nations to help those countries that are less privileged. It has been recognized that everybody will benefit from this outlook. Today, no nation can live without feeling the influence of the rest of the world, and we cannot expect peace and progress while two thirds of the world population is struggling with ignorance, disease and hunger.

In the Americas, a major event in the movement for international cooperation has been the Alliance for Progress program. The Latin American countries are very interested in having their problems recognized.

In this regard, I would like to quote Dr. Candau, Director General of the World Health Organization who recently said "economic and social development is not something which can be given to people--it is, instead something which they can only achieve for themselves." If we agree with this philosophy, we should recognize that unless the serious nutritional deficiencies afflicting the majority of Latin Americans are corrected, we cannot expect them to contribute significantly toward the achievement of better social and economical structures in their countries. It is also true on the other hand, that unless a significant improvement of these conditions is obtained, the nutritional problems will not be solved completely.

^{*} INCAP Publication I-264

These facts were recognized at Punta del Este and one of the resolutions of the Alliance for Progress program states that one of its objectives is:

"To make substantial improvement in the feeding and nutrition of the most vulnerable sectors of the community by increasing the consumption of animal or vegetable proteins."

It is further stated, as another specific objective, "to reduce the rate of mortality in children under five years of age to one half of its present rate during the present decade."

In regard to this last objective, I would like to remind this audience that the evolution of mortality in children in the more developed countries as well as the present situation in the pre-industrial countries, both clearly indicate that nutritional deficiencies are one of the most important causes leading to the alarmingly high mortality rate of children under 5 years of age in Latin America today.

It is evident, therefore, that there is a great need for nutritional programs as part of public health plans. The Pan American Health Organization, Regional Office for the Americas of the World Health Organization, is conscious of this, and is devoting a significant portion of its efforts to guide these countries in eradicating this menace.

I am not going to review the nutritional problems of Latin

America, as this was done by Dr. Nevin S. Scrimshaw at this meeting a few

years ago. I would rather discuss some of the achievements already obtained

and consider some future proposals; for the latter I will base my comments on the conclusions of the Advisory Group convened by the Director of the Pan American Health Organization to discuss this problem and which met in Washington in January of the present year.

The first public health nutritional problem that Dr. Scrimshaw mentioned in his presentation to this Committee in 1956, was endemic goiter, highly prevalent in at least one area in every Latin American country. He also mentioned that a practical way of solving this problem, using a new method of iodizing the salt, which takes into consideration local facilities and limitations, had been worked out and thoroughly tested under experimental conditions. This work was followed by the visit of two consultants of the World Health Organization who visited every country in Latin America in order to help the authorities concerned in the writing of laws and regulations for the iodization of salt, aiding as well in the technical and practical problems involved. As a result the necessary legislation was adopted in most countries; in Guatemala, for instance, this was done in the same year, 1955. It took some time for the measure to be applied, however, and in 1961 it was estimated that about 60% of the salt consumed in Guatemala was iodized. At the beginning of 1962, the proportion was Towards the middle of 1962, a new survey on the prevalence of endemic goiter was carried out in Guatemala, in order to find out if it was already possible to observe some results. This survey was made following the same procedures and covering almost the same number of persons in the original survey carried out in 1951-52, and the results were much more encouraging than we expected them to be. In fact, the original survey indicated a prevalence of endemic goiter between 21 and 44% for the majority of the

villages investigated, and some with figures over 50%. The 1962 survey, studying the same communities, indicated a definite decline, the figures now being reduced to from 10 to 30%. These observations are of great importance because they show that it is possible to control this public health problem without great effort, and this will be a great stimulus to other countries which have not yet adopted the measure of iodizing their salt according to the recommendations of WHO. If this is done, endemic goiter can be eradicated as a public health problem within a few years.

The other major nutritional problem presented by Dr. Scrimshaw was the high prevalence in Latin America of the severe nutritional disease known as kwashiorkor, which in fact should only be considered as an index of the even greater problem of protein deficiency, not necessarily as severe as to produce kwashiorkor, but from which a large majority of children in Latin America are suffering, being also responsible for their inadequate growth and development and contributes to the very high mortality and morbidity rates in children during their second and third year of life.

Dr. Scrimshaw also reported the efforts that were being made at that time, in which WHO was actively participating toward the development of vegetable mixtures of high nutritive value, produced with locally available materials, of low cost and adapted to the food habits of the people. This was believed necessary, since for economic, agricultural and cultural reasons, there are no possibilities of solving the problem of reduced availability and consumption of proteins of high nutritive value with only milk and other sources of animal protein.

It is with great pleasure that I can now report that the vegetable mixture developed by the Institute of Nutrition of Central America and Panama, given to private enterprise for its commercial production and distribution under the name of Incaparina, has already proved to be a success in Guatemala, and is being introduced in other countries. In Guatemala, it has been on the regular market for more than one year. It is being sold as a supplementary food, to be used by those families who cannot afford enough milk or other animal foods in their diet, and at a price 4 to 5 times lower than that of milk (4 cents for the equivalent, in nutritional terms, of a quart of milk). The company which produces Incaparina in Guatemala has been selling about 20,000 pounds per month and is planning to increase its industrial facilities in order to be able to satisfy the increasing demand for the product.

Incaparina is now also being introduced into the markets of El Salvador and Nicaragua, and plans are well advanced for its introduction in the near future in Mexico, Honduras, Colombia and Venezuela.

Inspired by this work, groups of scientists in Peru and Argentina are now testing similar mixtures, which they have developed using material more readily available to them, or more closely adapted to the local circumstances. WHO is also providing these groups with all its experience and possible help.

We are convinced that this development can be a great help in solving the problem of insufficient availability of foods, particularly

of those with better nutritional value. This is a problem which instead of improving, has become steadily more acute due to the fact that the population increase during the last years has become greater than the increase in food production.

There are, besides, endemic goiter and protein-calorie malnutrition, other nutritional deficiencies in Latin America, which I am not going to discuss at this time. I would like, however, to mention at least two which are of great importance in some areas. These are nutritional anemias and vitamin A deficiency; the first reduces considerably the working capacity of the population, and the second, in some areas is serious enough to produce complete and permanent blindness in small children.

In reviewing the situation in regard to the problems and the resources, the Advisory Group of PAHO recommended that the following measures urgently be taken.

- l. Training of professional personnel. It was concluded that one of the major limitations for the establishment of adequate programs to deal with the problem was the scarcity of trained personnel. The minimum estimate for the next ten years was 400 highly-trained specialized medical nutritionists and 1,000 to 2,000 non-medical nutritionists.
- 2. Establishment and consolidation of the nutrition services at the national level. Although there are nutrition units at the national level in almost all the Latin American countries, most of them do not have

full-time, properly trained staffs and, as a result, do not perform all the functions they should.

It is obvious that the problem is closely related to the previous one of lack of professionals in the science of nutrition and is also due to the low priority that nutritional activities have been given in public health and other national programs.

- 3. Establishment of advisory and planning bodies to ensure coordination. These units are badly needed because the solution of nutritional problems calls for the participation of many different agencies, such as those of Public Health, Agriculture, Education and Economics. The coordination of their efforts is necessary for better efficiency, particularly when the human and material resources available are so limited.
 - 4. Strenghtening of Maternal and Child Health programs.

Mothers and children are the most seriously affected by nutritional deficiencies. So far, most of the services of these programs have been concentrated on infants, and to some extent, to school children, but even for these groups the coverage is very limited. This has been done following the practice of the more developed countries, where infants are the ones with greater need for medical supervision and because they and the school children are more easily reached by the public health agencies. The groups which need more attention in the pre-industrial countries are the infants after weaning, and the toddlers. These children, however, are left on their own. Unfortunately, it is during this period of life when the frequency

of infectious diseases and the dietary restrictions are greater. As a result, their mortality rate reaches 10 to 40 times what it should be. Furthermore, those who manage to survive will suffer the consequences of a marked retardation in growth and development.

5. Improvement of present knowledge of problems and solutions.

There is an urgent need for more research on the exact nature, magnitude and causes of the problems and on their possible solutions, in order to be able to plan rational programs relating to applied nutrition.

As you can appreciate, the task is a tremendous and difficult one; PAHO in the Americas, and WHO in general, are doing the best they can to help these countries in this regard. These organizations are also suffering, however, from the limitations of insufficient personnel and resources, and it becomes more obvious every day that the countries are now becoming conscious of the urgent need of improving one of the most important factors in economic and social development—man himself.

As the infectious diseases are controlled with the application of modern knowledge of preventive medicine, mortality is being reduced and, as a result, the population is increasing at a higher rate, creating, therefore, a greater demand for food supplies, which are already insufficient both in quantity and in quality. A permanent solution can only be expected when these populations will be able to produce or obtain by themselves enough and proper food to satisfy their requirements. Only then can we expect the now called "underdeveloped" countries to live in harmony among

themselves and with other nations, contributing towards a better world for all, and this is one of the major objectives of the World Health Organization.

To be presented before the Forum Session on "Eradication of Disease and Hunger--Objectives of the Alliance for Progress." at the 10th Annual Meeting of the National Citizens Committee for the World Health Organization, Miami Beach, October 17, 1962.

Dr. Moisés Béhar is Director of the Institute of Nutrition of Central America and Panama (INCAP), Guatemala, C. A.