

**ACTION PROGRAMS:
A SKETCH OF THE STANDING APPROACHES IN MEXICO***

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SUMMARY

The subject of this Colloquium, *Prenatal and Perinatal Nutrition*, can not be separated from that of primary collective malnutrition, a phenomenon observed within incohesive societies, traditionally ravaged by exploitation, under- and unemployment, external or internal colonialism and, very especially, by ignorance. Nutrition and social development are mutually dependent so they must be promoted together; nutrition, however, is specifically the direct responsibility of nutritionists.

Among applied nutrition programs the most commonly used are those of *education* and *food supplementation*. When adequately planned and performed, education programs are more likely to succeed since they modify attitudes and ways of living. Food supplement programs, in contrast, are only symptomatic, tend to be self-perpetuating and to create dependence; in addition, they are expensive. Therefore, they are used for the correction of acute situations or as a measure of initial attack in critical regions. Both kinds of programs are not exclusive; thus, they may be combined.

The paper briefly describes some experiences of the National Institute of Nutrition (INN) in Mexico. An account is presented of how an educational program achieved an important decrease in preschool children malnutrition and mortality rates in an extremely poor community. A brief description is also made of a Basic Rural Health Program proposed in 1976 for the next six years including actions in five areas: a) nutrition, b) responsible paternity, c) hygiene, d) vaccination, and e) promotion of high nutritional efficiency products.

* Presented at: Colloquium on "Prenatal and Perinatal Nutrition" held as part of the IV Latin American Nutrition Congress, Caracas, Venezuela, 21-27 November, 1976, under the sponsorship of the Latin American Nutrition Society (SLAN).

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In the five previous presentations, profiles of the *fetal growth retardation* were outlined with precision. Although this phenomenon is not known as yet with the depth it merits, it is clearly frequent and extraordinarily transcendental in the Latin American countries. Its multifactorial character and the crucial role that the history of nutrition and maternal health play in its genesis, has been underlined. The existence of a chain of adverse factors that perpetuate malnutrition from one generation to another has also been pointed out. This starts —if the use of this term is acceptable— with malnutrition of the mother throughout her life, follows with pregnancy under inadequate nutritional conditions and with insufficient lactation, and reaches its critical moment at the weaning stage. Fatally, of this series of events emerge mothers even more deteriorated in their health and nutrition, on the one hand, and on the other, a decimated preschool population whose “survivors” are seriously affected in their growth and in their physical, intellectual and social development. Later on, as adults, these children will virtually “transmit” malnutrition to their descendants not only through biological mechanisms, but also through those of a cultural and social nature¹. Thus, the “social malnutrition cycle” will be closed.

I deem it advisable to strictly present the approaches that have been proposed in Mexico and the pertinent antecedents, with the understanding that I do not pretend that any of them necessarily have validity in other countries.

For practical purposes, it is artificial to dissociate perinatal nutrition from nutrition through the rest of the life stages since, as mentioned previously, they are links of the same chain; in other words, one is dealing with a *global phenomenon*.

In its turn, nutrition is the product of a multitude of factors² that, in an effort to classify them, can be interpreted as a reflex or consequence of the degree of development of the society where they occur. Massive primary malnutrition is observed in societies with little cohesion, chronically subjected to external and internal colonialism, where exploitation, unemployment and underemployment are common, and where ignorance is prevalent.

Nutrition, therefore, is limited by the degree of social development but, in its turn, the possibilities of reaching a greater development depend, among other factors, on the degree of prevalent nutrition in a given human group. This mutual relation generates a vicious circle from which it is difficult to escape; discussions on whether this vicious circle must be broken by improving nutrition or by improving social development fall, as is to be expected, in another interminable circle.

Ideally, a thorough solution would require the parallel promotion of both elements: *nutrition* and *development*. The temporary dimension where this promotion must originate, however, is radically different in one case and the other, since promotion of development requires a much longer term. On the other hand, the latter task is considerably more complex and difficult: it requires modification of the attitude and behavior of the population and only by exception does it fall in the field of direct action of the common nutritionists who have to limit themselves to express

their opinion or recommend measures to the political sector. In contrast, it is the immediate responsibility of the nutritionist to act at short and long term on the nutrition factor, including in their actions and programs the greatest possible number of change elements for development.

In the case of malnutrition there is abundant biomedical essential information for planning the programs. However, this is not the case regarding adequate psychosocial data that, among other things, must include a detailed view at regional level, of the food habits, food production, local social problems, income levels, etc. This deficiency, which is not remedied with the simple transfer or extrapolation of data from other regions or countries, gives an aleatory character to many programs. Since the urgency to carry out resolute efforts whose initiation cannot await obtainance of the necessary data for an orthodox planning is indisputable, it seems justifiable and even desirable to initiate these programs based on a realistic generic sense, foreseeing the mechanisms which permit exploring the regional problem at the same time that this is attacked and which also allow modifying the plans already under way.

According to the experience of the National Nutrition Institute (INN) in Mexico, the nutritional panorama in the rural areas is so severe that application of simple measures that appear to be of no consequence on account of their obviousness, can represent real revolutions in the communal life. Probably this is also valid for the majority of the Latin American countries.

In the last decades, programs have been essayed throughout the World that, as Dr. Solimano pointed out, can be artificially classified in *educational* and of *supplementation*. In both cases results have been poor due to quite diverse causes: from the ineptitude or corruption of those who apply them, to the lack of sensitivity in their realization or in their deceitful foundations.

At the level of a theoretical analysis, it is evident that a well-planned educational program, with clear objectives and well carried out, changes the *way of life* and *acting* of the individuals and of the society. Since after all, primary malnutrition is an element of a special way of living, this type of programs have high probabilities of being effective.

On their part, the supplementation programs are based on biological unquestionable premises. It is quite easy to demonstrate, both in laboratory animals as well as in human beings, that the sustained intake of an adequate diet usually corrects the clinical picture of malnutrition and, according to circumstances, can also partially correct various of its sequelae. Undoubtedly, a supplement adequately administered for a sufficient period of time, is effective; for this reason, it is correct to carry out supplementation programs in acute situations (for example, emergencies caused by natural catastrophes such as earthquakes, floods, droughts, etc. or because of war effects), as an initial attack in zones affected by malnutrition where there is a clear danger for the lives of the people and as a general measure in crisis situations.

The disadvantage of the supplementation programs is that they do not attack the problem by root, but only their symptoms. Malnutrition is the last link of a chain of facts that will persist even though the nutrition problem is corrected.

As is to be expected in the case of any symptomatic measure, when for any reason these programs are suspended, malnutrition reappears again sometimes even with greater intensity than before because the population has lost, partially or totally, the biological, social and cultural adaptation mechanisms to the phenomena that generate malnutrition. Another disadvantage of the supplementation programs is their tendency to prolong indefinitely. This is serious if one considers their high cost, their scarce resolutive efficiency, and the fact that they foment dependency from a paternalist structure that castrates the elements of an at-depth solution.

The educational and supplementation programs are in no way mutually exclusive. They can be complemented in a combined execution or as different stages, but in any case education must have priority in attacking chronic malnutrition, since it is effective from root, requires less inversions and yields greater benefits for a longer period of time, thus resulting ideal in weak economies. Nevertheless, the educational programs require careful preparation and an intelligent selection of the messages, a great clearness in their objectives, and pragmatism and simplicity in their execution.

Several years ago, the INN of Mexico carried out a research study that, among other objectives, pretended to evaluate the effectiveness of education as a change agent in nutrition.³ A small rural village of Southern Mexico was selected for this purpose, where material poverty was so severe that, at first sight, the economic factor appeared to be the main determinant of malnutrition. Under these conditions, positive results would only be seen if education is really an effective agent.

A nutritionist was installed in the community and her work was limited to instruct mothers on the correct way of nursing and feeding the infant and on basic hygiene. At no moment did the population receive food or money. Even though the program covered only those two aspects —breast feeding and hygiene— that are far from being the only ones involved in the global problem, in a few months a significant improvement in the nutrition of infants and preschool children was achieved, and the mortality rates in these age groups were dramatically reduced. The fundamental conclusion derived from this experience is that *ignorance*, the “way of life” in that region, *added a component of inefficiency to the already extreme poverty*, and that there existed resources that were not utilized sufficiently to achieve a minimum dietary level. Something essential was also confirmed: *quite frequently, marginated populations are avid for this type of help and they accept strange persons when these are honest and well-intentioned.*

Other important antecedents are the longitudinal studies on nutrition and human development that the INN has been carrying out during the last 7 years in Tezonteopán, Puebla.⁴⁻⁹

Essentially, the design of the program was based on the study of two groups of others and their respective children; one of the groups (control) was studied in its natural state and the other received an adequate diet. In the first of these groups mothers consumed their habitual diet, which is insufficient in quality and quantity, although none of them showed obvious signs of malnutrition.

It is pertinent to comment on this occasion only some of the findings in the lactation field. In general, all the mothers in the control group presented a marked hypogalactia,⁴ especially as of the third month of lactation, a phenomenon which chronically kept deteriorating the nutrition of the child up to the weaning crisis. In other regions of the country transversal data have been obtained which permit to suspect that hypogalactia could be a general phenomenon in the poor-fed populations, whose effects would be prevented by an early and effective supplementary feeding that should have priority in the educational programs.

In 1973 the Mexican Government decided to carry out a nutrition education program in the rural area, which should be highly efficient given the limitation of material resources and availability of personnel. The INN judged pertinent to concentrate the program on the weaning problem, based on the antecedents described in previous paragraphs.

The *small child* was taken as the *central beneficiary* of the program, not only because it represents the most vulnerable group to malnutrition and where the higher morbidity and mortality rates are observed, but also because it is at this age where action is more timely and, in absolute terms, requires less efforts.

The ideal *educational message* for this program should be very *simple*—both for the receptor as for the transmitter—in order to guarantee its assimilation. It should also have immediate practical application.

Transmission of the message should be *intense and repetitive* utilizing various parallel ways. Particular emphasis was placed in avoiding distraction from the central objective by introducing messages of other nature, a very frequent temptation in this type of programs.

Lastly, the “messenger” should be *reliable*, have *prestige* in the community and remain in it for a *long period of time*.

On the basis of the preceding considerations, the following methodology was established:

1. The “messengers” would be *voluntary* mothers of the rural area identified by their tendency to participate in communal life and by their local prestige. Preferably, they would be mothers with a lactating child, who would receive theoretical and practical training during 1 or 2 weeks and would then return to their place of origin to practice and diffuse the acquired knowledge. In principle, the fact that they

were mothers of the locality assured their interest and permanency. More than 50,000 of these "B Promoters" were prepared in the first stage.

In their turn, B Promoters had been trained by various generations of "A Promoters", women with minimal primary studies who, in turn, were instructed by personnel from the Institute thus achieving considerable and rapid multiplication of the number of persons who knew the message.

2. The message covered three basic concepts:

- a) To introduce solid food to the infant's diet around the third month of lactation without reducing breast feeding.
- b) To utilize for this purpose the available home resources, which varied according to the case, and that had been previously identified as not being used.
- c) To prepare these foods hygienically and in such a way that they could be consumed by the child.

It should be pointed out that in the Mexican rural area many a time the existence of taboos on weaning are observed.^{10, 11} For example, food such as beans, available in the majority of the homes, as well as eggs, milk and meats are considered by the people as inconvenient and even dangerous for the child. This is why they prefer to give them starchy foods such as "atole" and others derived from cereals or the bean "broth", which is the water where this legume is cooked and which contains only from 1 to 1.5 g of protein per 100 ml. Even the animal products cited are periodically available in the poor homes in amounts that would be sufficient to benefit the child. In regard to the propitious time for introduction of solids, people believe that this should take place not before the infants are 7 or 8 months old. On the other hand, the prevalent culinary techniques in the rural area are very poor, since simple preparation such as purées, boiled eggs, grated meat, etc. are unknown and, in general, the hygiene in the preparation of foods is inadequate. The poor culinary technique is, then, another obstacle for the use of appropriate foods in the weaning stage and a mechanism of contamination of the infant diet.

The design of the program message here described and the pragmatic content given to it, reinforced with demonstrations and practical sessions was based on the already mentioned experience. There is no space to detail it more at depth. Suffice is to state that in mid 1976 an evaluation of the results was made by selecting at random various communities and, in each of them, some mothers were interviewed without considering the fact of whether they had been subjected to the program's influence or not. Around 30% of them answered satisfactorily the questionnaires employed.

Early in 1976 the gearing of this type of nutrition education programs was started, transforming them into more ample communal development programs.

Among the proposals presented to the new Government that will take power on December 1st, the implementation of a *Basic Rural Health Program* is cited. This would function through the work of promoters such as those who intervened in the nutrition program. The Plan would cover 5 areas:

Nutrition

The same general scheme of the educational program on weaning would be used with other aspects added to it, trying to cover in an integral manner the nutrition of the family. As the families of the marginated rural area base their meals on corn and beans, but ingest insufficient quantities of the latter, a greater and better consumption of this legume will be promoted for the purpose of achieving not only a better total protein ingestion, but also a better complementation with the corn proteins. In the same way, introduction to the habitual diet of a "third dish" which will vary according to the region and whose importance not only lies in enriching the diet but in making it more attractive and varied, will be promoted.

Responsible Paternity

In the experience obtained by the INN, it must be pointed out that, often, the peasant women ignore the existence of control reproduction means, and that among them there exists an increasing desire of doing it, in the measure that some modernization traits penetrate the rural life. Thus, the alternatives would be presented and the population would be induced to benefit from the formal programs of responsible paternity.

Hygiene

Special care would be given to the attitudes and behavior of the population, in contrast with the unbound habitual programs (for example, those related to the mere availability of drinking water and means of excreta disposal) that fail because of the persistence of old human attitudes.

Immunization and Basic Medicine

The habitual vaccines would be administered to the infantile population, and first aid basic concepts and for preventing and treating common infections—gastro-intestinal and respiratory—which represent the gross of the pathology in these regions, would be divulged.

Promotion of Consumption of Products of High Nutritional Efficiency

In the course of the last three years various products developed by the Food Technology Program of Social Interest of the INN have been placed in the market under the sponsorship of the National Food Program. Their purpose is to increase the availability of products that unite high nutritive value, low cost, and easiness of

conservation with the best possible sensorial acceptability.¹²⁻¹⁵ Within the Plan in reference, the goal is to obtain the greater possible utilization of these products, clarifying the fact that they are complementary resources whether they are produced with a minimum of subsidies or without them.

I have briefly described the type of approaches and programs that in Mexico have been estimated as more reasonable in combating the more urgent and immediate problems in the nutrition and rural health fields. I must insist on the fact that, in their design, circumstances and very particular characteristics which are only ours, have been taken into account, and that they are not necessarily valid in other countries.

RESUMEN

PROGRAMAS DE ACCION:

ESBOZO DE LOS ENFOQUES VIGENTES EN MEXICO

El tema de este Coloquio, *Nutrición Prenatal y Perinatal*, no puede desligarse del de la desnutrición primaria colectiva, fenómeno que se observa en sociedades sin cohesión, víctimas crónicas de la explotación, del desempleo, del subempleo, del colonialismo externo o interno y, particularmente, de la ignorancia. La nutrición y el desarrollo social deben ser promovidos paralelamente ya que dependen el uno del otro, aunque sólo la nutrición cae dentro de la responsabilidad directa del nutriólogo.

Entre los programas de nutrición aplicada, los dos tipos más socorridos habitualmente son los *educativos* y los de *suplementación*. Los primeros, cuando son adecuados, tienen mayores posibilidades de éxito ya que modifican actitudes y formas de vida de la población de las que depende muy especialmente la nutrición. Los programas de suplementación, en cambio, corrigen solamente el síntoma (la desnutrición) y no el complejo conjunto de factores que lo causan, tienden a perpetuarse y a crear dependencia; además, tienen un elevado costo por lo que su mayor utilidad radica en la corrección de situaciones agudas o como ataque inicial en zonas críticas. Ambas clases de programas no son excluyentes y pueden combinarse.

El trabajo describe algunas experiencias del Instituto Nacional de la Nutrición (INN) en México. Se menciona un programa, exclusivamente educativo, que logró reducir las tasas de desnutrición y mortalidad preescolar en una población extremadamente pobre. Se describe en forma breve, asimismo, el Plan de Salud Rural Básica propuesto en 1976 para el período 1977-1982, que comprende acciones en cinco áreas: a) nutrición del preescolar, b) paternidad responsable, c) higiene, d) inmunización, y e) promoción del consumo de productos de alta eficiencia nutricia.

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