THE ROLE OF HEALTH AND NUTRITION IN DEVELOPMENT

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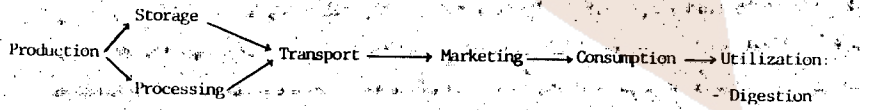
A. Overall Determinants of Malnutrition

The solving of the problems of malnutrition was for many years considered primarily a health activity and prerogative.

The modern approach to the problem - after having witnessed the failure of many attempts to solve malnutrition through health interventions alone - is to rather consider malnutrition as the biological translation of a variety of socio-economic problems afflicting a given society. Therefore, we now approach the problem as a "food and nutrition" problem to avoid the above bias. This means looking at the root causes of malnutrition and at their resolution along the Food Chain, defined as the paths food follows from its production (or import) to its consumption and utilization by individuals in the population.

The traditional steps of this food chain are the following:



At each step of the chain one finds bottle-necks that directly or indirectly contribute to malnutrition. It is the task of the food and nutrition planning process to identify these multiple constraints and to propose viable solutions for as many of them as possible to allow for a smooth left-to-right flow of the different foods in the chain. In so doing, the aim is to minimize the negative impacts of each constraint in maintaining malnutrition as a national problem.

It should come as no surprise that key elements of a host of economic, infrastructural, manpower, agricultural, educational, environmental, health, and other constraints need to be considered in any diagnostic analysis of the problem and that solutions often far-removed from strict "nutritional" interventions are proposed as indispensable to achieve success in the battle against malnutrition. Special mention should be made of the immense potential of integrating two of the classical development programs at the crux of the malnutrition problem. We refer to the integration of primary health care with agricultural and rural development activities. Both require a food and nutrition input that needs to be coordinated.

A number of major constraints to better health and nutrition are probably common to most third world countries:

Food and nutrition problems are strongly linked to the problem of urban migration. Every urban-migrating young adult male represents at the same time two less arms to produce food and one more mouth to feed in the city through the efforts of those who stayed behind (mostly women, children, and elderly men). For this reason, increases forseen in food supplies are probably going to be only moderate in the future. Therefore, cities will continue to deteriorate if the countryside does not prosper. On the other hand, the "traditional" agricultural sector will continue to be, for years to come, the number one moving force of the country, producing more than 80% of the food eaten in most countries.

Availability of productive employment, revenue and food (basically staples) is often seasonal in rural areas thus compounding the problems of health and nutrition during the hungry season.

In most of these countries a sizeable proportion of the population (those of low income or subsistence status) get less than the FAO recommended average daily calorie ration of 2200 calories. Although urban averages often surpass the above recommendation, it is in the cities, also, where we find the largest income disparities. We can, therefore, safely assume that 30 - 40% of urban dwellers are also below the

norm. Moreover, the cost of a minimum cost diet for an average family of five or six members is often above the minimum wages of most unskilled workers in urban centers. Caloric deficiencies and malnutrition should come as no surprise under such circumstances.

The overall purchasing power of the population (mostly poor) will improve only very slowly, causing the effective demand for food to grow only very slowly as well. The demand for food is not equal for the different socio-economic groups and for the different types of food (especially those of animal origin). Averages hide disparities of the economic behavior of different sectors of the population. This heterogeneity in the possibility of acquiring food (secondary to income distribution disparities) can in the future generate social tensions.

Finally, another factor hampering well-being that needs to be tackled is the negative impact of the environment and infectious and parasitic diseases on the nutritional status of the low income groups. Environmental sanitation, potable water, immunizations, as well as overall preventive medical services and child spacing will become increasingly important in combatting malnutrition in vulnerable groups as defined earlier.

The causes of malnutrition can arbitrarily be classified into six categories, namely:

1. Socio-economic causes
2. Political causes (related to government policies)
3. Agricultural causes
4. Health and environmental causes
5. Educational causes (includes cultural determinants)
6. Administrative, managerial, and infrastructural causes

The ordering of the above causes in the sequence shown probably reflects their order of magnitude in perpetuating the problem.

A deliberate effort to identify these causes should be made to put the problem of malnutrition, and the chances of doing something about it, in the proper perspective for each particular country. This exercise will also help to better design appropriate nutrition/health interventions with special reference to Primary Health Care.

B. CAPACITY OF THE CURRENT SYSTEM TO ALLEVIATE HUNGER AND MALNUTRITION

As the list of determinants of malnutrition is so extensive, intricated and interrelated and as the scope of our efforts focuses more on health interventions, let us first briefly analyze the set of overall policies and interventions needed to decidedly move towards erradicating the problem of malnutrition to then focus our attention on the special role of health interventions in this process.

Overall Strategy:

The capacity of the system to alleviate hunger and malnutrition in the long-run depends on the concerted efforts the government is making to tackle the root causes of malnutrition. This is in turn related to whether the government is really committed to this task. Equity oriented policies are at the center of this commitment since inadequate food consumption due to poverty is the main underlying problem. Commitment in this respect might be reflected, among other, by labor-intensive agricultural production, by high priority placed on production of crops for domestic consumption, by a reasonable equitable food distribution system and by a broad-based participatory system of health services.

Based on past experience, the above capacity of the system to do something significant about malnutrition should be judged as poor unless a significant number of some of the following actions are foreseen and carried out in the national development plan:

- measures to slow down urban migration by increasing rural employment opportunities, making agriculture more profitable and providing a minimum of infrasturtural services in rural communities. This entails a change in investment priorities towards overall rural development.

- measures to curb urban unemployment
- major staples in the country must be made profitable to producers.
- Incorporation of women into the development process explicitly, i.e. making them eligible for bank loans and credit.
- government marketing boards to pay fair market prices to producers of cash crops in the traditional sector.
- Agricultural banks to strike a fairer balance between cash-crop and food-crop credit allocations favoring the latter.
- Minimum wage policies to be based on minimum cost diet studies
- Higher import duties to be levied on luxury items, especially luxury foods and beverages.
- The volume of subsidies for selected durable inputs (i.e. tools & small machines) for small farmers to be increased.
- Installation or expansion of rural cooperatives systems.
- Subsidization of fertilizers and pesticides imports and proper balance to be stricken between the proportion of these inputs going to food production as opposed to cash-crop production.
- logistical support for agricultural extension workers and community development workers.
- Priority to home and school gardening programs and small, dry-season irrigation projects.
- Measures to improve farm-level food storage practices to significantly decrease food losses.
- Primary school enrollment as percentage of eligible school-age children to be increased. Includes the opening of more schools and the progressive teaching of more work-related skills in the same (especially in agriculture).
- Adult literacy campaign with emphasis on women to be intensified.
- Strong drive for community development and organization to foster citizens participation in development activities at all levels.
- Organization of a network of daycare centers and nurseries in the country.

This list of interventions is by no means complete, but probably reflects most of the more equity-oriented actions committed governments would embark on.

The collection of some of the data related to the causes of malnutrition as depicted in the proceeding pages should help to objectivate the degree of commitment a given government has.

Although improving the nutritional status of vulnerable groups in the population remains closely related to the alleviation of poverty, it also requires specific interventions from many sectors. Some determinants of malnutrition are, for instance, amenable to partial or total correction through explicit health interventions.

Special Role of the Health Sector in the Battle Against Malnutrition:

It is now quite universally accepted that primary health care is the most viable, logical and best possible approach to eventually reach the goal of health for all by the year 2000. Whenever PHC gets a commitment beyond lip service in the allocation of resources in a country it actually has that potential, because of, among others, its appropriateness in design and choice of technology pointing towards higher degrees of self sufficiency and its need for active community participation and involvement. As such, PHC both addresses the host of local health problems as felt by the beneficiaries and has the added potential to go beyond traditional health concerns in organizing the people around some activities that eventually have an added potential to address some of the root causes of malnutrition and poverty. In short, PHC carries in it the seed for an important mobilization of the rural communities to change some of the determinants of their condition.

As can be suspected, a genuine PHC emphasis requires some painful re-shifting of priorities in health, often away from urban-biased, big-hospital and doctor-centered traditional approaches.

In general, the range of health interventions that point towards PHC goals (although not always strictly PHC activities) would be among the following:

- Construction, staffing, equipping and opening to use of more primary health clinics. Includes training of necessary paramedical personnel, village health workers, and traditional birth attendants.

- A higher percentage of the national health budget to be shifted to preventive services.
- Expansion of national vaccination programs.
- Expansion and extension of coverage of overall maternal-child health services including child-spacing and family planning services.
- Emphasis to be given to preventive and curative approaches to intestinal parasites, malaria and diarrheal diseases (including ORT).
- Promotion activities to increase the number of deliveries properly attended by trained personnel and expansion of the pre-natal control of mothers (includes monitoring maternal nutrition during pregnancy and lactation and provision of Iron and folate supplements plus tetanus vaccination and malaria prevention during pregnancy).
- Promotion and expansion of latrine construction programs through self-help.
- The number of households with access to safe and sufficient drinking water to be increased through self-help projects.
- Introduction and use of growth charts in all clinics including the training of the personnel to use them properly and periodic reporting of growth retardation trends found.
- Retraining of field health personnel with emphasis on nutrition and preventive health activities.
- Development of nutrition protocols for the treatment of malnourished children to standardize the therapeutic approach at the national level.
- Mechanisms to record and periodically report birth weight data to be set up.
- Review and improvement of the nutrition curriculum in all university health-related schools.
- Introduction of health and nutrition education activities through the radio.
- Introduction of health and nutrition modules in the science curricula of primary, secondary and technical schools.
- Import controls of baby formulas and baby weaning foods assuring reasonable margins of profit for wholesalers and retailers; promotion of these products through the media to be stopped.

Again, this list is not neccessarily complete and, as said, includes some not strictly PHC policy options. Directly or indirectly, all of them are related to the problem of malnutrition and the ways and means to ameliorate it. Therefore, an assessment of whether national health plans incorporate these activities at all and to what degree will help to determine the capacity of the health sector to tackle some of the determinants of malnutrition in its realm. We all know that the implementation of all these interventions is very expensive - especially the expansion of all sorts of health coverages and the training efforts needed to achieve the same - and is, therefore, beyond the capacity of any average third world country in the short run. Nevertheless, health policies can clearly point in the right direction (with PHC as a distinct priority) without major increases in economic resources allocated, or they can stay the course, relegating PHC to a token program within the health strategy.

The capacity of the health sector to affect changes, of course, does not only depend on the policy options chosen (the political instance) and the qualitative considerations about each intervention proposed (the technical instance) but very importantly on the budgetary, material and human resources available to carry out those plans (the infrastructure's capacity).

If we go back to the incorporation of nutrition components in the design and operation of PHC projects, this latter question is crucial. Can whatever we are going to ask to be done be really done with the existing infrastructure in primary health care in the country? If the answer is no, then the strengthening of that PHC structure is (or will become) the first priority of our effort to incorporate nutrition considerations. Too often this has been overlooked and beautifully conceived components of PHC programs have stayed unapplied.

Of primary importance, then, is that planners spend some time in inventoring available resources in PHC and nutrition as they exist at present in the country.

Once this is done, the missing resources can be inventoried and the needs and areas for improvements can be identified, both for health and nutrition components, and both in infrastructure and in actual program components, disaggregated by region or province and in budgetary, material and human terms.

In summary, food and nutrition interventions have to be looked upon, both in a national and an international perspective and context. Foreign aid, intended to alleviate hunger and malnutrition, has created dependency, the foreign debt it generates being a constant reminder of neo-colonial relationships between the countries of the North and the South. Part of the borrowed money has been used to maintain consumption levels (mostly urban) at a time when the prices of third world countries' exports commodities are falling. Little of that borrowed money contributed to economic growth and food self sufficiency has tended to fall.

So, do we need to invest more heavily in better health and nutrition programs? The answer is, obviously, YES. But we are told that governments can't tolerate empowerment and autonomy of communities and primary health care should do exactly that. This is the challenge commited health workers face: To revert this grim picture, since the final, more profound solutions will depend on the resolution of the MACRO determinants we started to enumerate earlier.

We ought to be advocates of the poor. But, are we?... Is putting nutrition into PHC programs enough? There has been a general failure to tackle the profound underlying causes, such as land distribution, land shortages, low farm gate prices, lack of investment in the peasant sector, i.e. in health, education and water and an unwillingness to leave the control of food production in the hands of its producers; the peasants also are under pressure by their governments (who are pressured from outside themselves) to favor technically advanced, large-scale farms; agribusiness will not reverse the third world's food shortages!

The main problem remains: it is POVERTY. Emphasis on production fails to address the problem of WHY people in rural areas are poor, in poor health and malnourished. The poor are not self-destructive or short-sighted, but oppressed.

We must become better advocates in the light of a politization of the health sector. Our first goal is to universalize PHC so that it can acquire the capacity to carry a nutrition component.