

The Nutrition Component of Primary Health Care

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The concept of Primary Health Care (PHC) is motivated by the desire to ensure at least minimal standards of health for all people (including the poor) by extending the outreach of basic health services to rural areas at a cost which people can afford. The Bhore Committee Report drawn up nearly four decades ago reflected this concept. The Alma Ata Declaration served to reinforce the concept and injected a sense of urgency in its implementation by setting the goal "Health For All by 2000 A.D." India has endorsed and subscribed to this approach.

Six years have elapsed since this Declaration was accepted and some of the strengths and weaknesses of the strategies being adopted for this purpose are now being realised.

The broad concept of Primary Health Care should, in fact, include all activities which have a bearing on health, irrespective of whether they are being operated by the Health Sector or not. Ensuring health for the people involves a whole range of activities—not all of which lie within the ambit or the competence of the Health Sector. Primary Health Care should be conceived and implemented as an integral part of overall development of Human Resources, and should, therefore, figure as a major component of integrated rural development programmes.

In actual practice, however, PHC has almost always remained an exclusive activity of the health sector and is rarely combined with other inputs essential for all round development of human resources. Though several lacunae in the delivery of PHC have been identified and may hopefully lead to introduction of corrective measure, it would be unrealistic to believe that within the next few years, either the quality of services or the extent of coverage will reach ideal levels. However, it is at least important to examine the extent to which PHC can be improved in order that it can make an impact on the nutritional status of rural people.

Nutrition component of PHC: This paper is largely concerned with the present state of the "nutrition component" of PHC. The comments here are based on the author's observations on Primary Health Care delivery in parts of rural Karnataka.

What would we want the nutrition com-

ponent of PHC to do and how can we judge whether or not the goals are achieved? A short list may include the following: a reduction in neonatal mortality and morbidity by improvement in birth weights through better nutritional care of the mother; a reduction in infant mortality and morbidity through better infant nutrition; a reduction in toddler mortality and morbidity by promoting satisfactory growth through monitoring, counselling on feeding practices during health and sickness, therapeutic feeding interventions when necessary, prevention and treatment of diarrhoeal disease including oral rehydration, immunisation; a reduction in the prevalence of two specific deficiency diseases so widely seen—anaemia due to iron deficiency, through education and distribution of medicinal iron; blindness due to vitamin A deficiency through education and periodic administration of large doses of vitamin A. All these activities lend themselves to quantitation and can therefore be used as indices to judge the effectiveness of PHC in combating undernutrition.

Malnutrition is the outcome of a complex interplay of a number of factors but it must be recognised that in our country it is predominantly an economic malady. Any attempt to contain it has perforce to take cognisance of the overwhelmingly important economic aspect. If this basic premise is accepted, we will not be justified in expecting PHC by itself to improve the nutritional status of a good proportion of rural families who do not earn enough to buy their minimal food needs. The priority remedial action for this is undoubtedly employment generation and improvement in purchasing power. Even with the best of intentions, these lie almost totally outside the scope and competence of the health sector. The entire health sector, which runs the PHC system, by itself, is in no position to improve the situation. PHC, therefore, can make at best only a marginal impact on nutritional disorders which depend primarily on adequate food intake for their correction. In any evaluation of the efficacy of PHC with respect to nutrition, this limitation has to be recognised.

The role of the village health guide: It is sometimes argued that within a community there is always a section which has the ability to buy food but does not make proper use of its resources and that this

section will benefit through appropriate health and nutrition education. The concept has grown that the selection of a person from within the community by the community itself and training him to deliver health and nutrition services including education, is perhaps one of the best ways of ensuring satisfactory results. In many places, this belief has found expression in practice, though it is not always the community which selects the worker. At the "primary" level, it is this worker who is entrusted with the "nutrition component" along with an array of other tasks to perform. Nutrition education is perhaps the most difficult task, but seldom recognised as such. It is difficult for any one watching VHGs in action and talking to them, not to become aware of the fact that this important component is left to those who are least prepared and least competent.

Fortunately, in the present PHC system, though the 'manuals' and assigned job responsibilities of VHGs include nutrition education, the system is not wholly dependent on this functionary alone for this purpose. The "female multi-purpose worker" who has better training and better educational background is also entrusted with this responsibility; and in the new arrangements this category of workers will have responsibility for a smaller population and for this reason they should be able to spend more time on domiciliary visits than hitherto. Furthermore, with the institution of ICDS in an increasing number of rural blocks in the country, another category of workers (the *anganwadi* workers) are also now available for the implementation of nutrition programmes including non-formal health/nutrition education. The ICDS system also includes feeding programmes targeted to under-fives and nursing mothers. The *anganwadi* workers are fortunately not saddled with the same wide range of functions as those of the regular health system and for this reason it is to be expected (though this expectation is at present not always fulfilled) that they will be able to spend more time on preventive and promotive programmes. These arrangements should serve to augment the nutrition component of PHC. If they are further reinforced, as they must be, with employment regeneration programmes and if adequate functional linkages between the currently disparate rural development programmes can be forged, the nutrition component of PHC could get adequate focus in future.

The present situation: It may, however, be useful at this point to recount the current deficiencies in the functioning of PHCs with respect to nutrition care, so that we may ensure that the additional inputs

now being deployed will serve to correct this situation in future.

A look at how two apparently simple but important nutrition messages are handled by health workers will illustrate the point. The first deals with the appropriate time at which food supplements have to be introduced to infants as well as the type and quantity to be fed and the second deals with child feeding practices during sickness.

It has been repeatedly shown that a substantial proportion of rural mothers do not introduce food supplements till after the first year of life and that, often the quantity given is insufficient. This leads to considerable growth retardation between six and 18 months of life—a setback from which most children find difficulty in recovering. Qualitative and more importantly quantitative changes in food intake, amounting to semi-starvation, frequently occur during episodes of all illnesses and this perpetuates and aggravates growth retardation. The health workers have to educate the mothers regarding correct feeding practices. Many, but not all workers, acquire the necessary knowledge during the training period; fewer still acquire the correct attitude.

As mentioned earlier, the selection of VHGs from within the community is believed to have several advantages. But it needs to be realised that it has certain disadvantages too. Since the worker comes from the community in which he has lived all his life, his belief systems about food and nutrition are closer to those of the community than to those of the scientific world which tries to modify some of these beliefs. Though 'trained' by 'qualified' people, the VHG frequently finds it difficult to deliver the messages with conviction and persuasiveness since he is himself not quite convinced about the 'correctness' of the messages he has been taught to convey. His original attitudes remain intact and he follows these practices at home. It should come as no surprise that when faced with a good deal of skepticism, challenge and ridicule of the 'new fangled ideas' by the mothers, he will tend to agree more with the mothers' views than with what he has learnt during his short training. To make a mother act on the belief that during sickness, food should not be restricted and that food taboos should not be practised, calls for skills, competence and conviction which are perhaps beyond those possessed currently by many VHGs. This may, in fact, be one of the crucial limiting factors in the successful delivery of nutrition education. It may perhaps be uncharitable to place the entire blame on the VHG because, often, the supervisors and teachers who train VHGs, themselves, fol-

low practices contrary to what they teach! If through educational measures, health workers are to achieve results, this situation needs to be most carefully analysed and weaknesses now existing, removed. Apart from the training of VHGs, the training and supervision of the female multi-purpose workers must also improve.

Growth retardation: Maintenance of growth charts for preschool children has been recommended as a useful tool in nutrition monitoring and surveillance work. The use of cards with various colour zones helps in the gross interpretation of the growth status of a child by health workers, but what action can the worker take to bring the child back to the correct zone from the wrong one assuming that she has been able to chart the growth accurately and interpret the growth chart correctly? In a substantial proportion, the worker is in no position to help improve the economic status of the family and in such of the families where ignorance and not economic considerations operate, health workers do not always possess the basic knowledge to provide appropriate counselling. Despite there being literally hundreds of recipes which can be prepared inexpensively at home, many health workers do not seem to know about them. Here too, the blame does not all lie just at the level of Village Health Guides only but at higher levels as well.

Anaemia: We might now take a look at what PHC can do to another equally widespread nutritional disorder—anaemia. A close look at the aetiological factors concerned with anaemia in rural people and some of the corrective measures needed, shows that only a few of them—not necessarily the most important—come within the scope of PHC. Low dietary intake of iron is often due to insufficient food intake and an unfavourable calorie/iron ratio. PHC can do little about the former and not very much about the latter, because this calls for nutrition education about iron-rich foods. Bioavailability of iron from predominantly cereal-pulse based vegetarian diets is low—an important cause of anaemia, and PHC can achieve little by way of improving bioavailability since this involves either increasing the heme: non-heme iron ratio which would make diets expensive, or reducing the amount of iron absorption inhibitors in the diet which involves drastic changes in the composition of diets which are almost impossible to follow. Some improvement in bioavailability can be achieved by increasing the ascorbic acid content of habitual diets. Encouraging the development of kitchen gardens and persuading families to include

more fruits and vegetables in their daily meals should therefore be attempted. This approach has been tried in the past and the evaluation of a large scale programme in India—the Applied Nutrition Programme—has shown that it was not much of a success. The practical difficulties in translating these ideas into action appear trivial, but have been critical—water availability, appropriate fencing and appreciation of the value of the produce.

Impaired absorption and utilisation of iron due to repeated episodes of infection, is an area where PHC can make an impact—both through preventive measures and curative services. Immunisation is now being increasingly accepted by rural people and PHC can extend and strengthen it. While this will reduce morbidity arising from vaccine-responsive diseases, it will have no effect on infections which most frequently occur—gastro-intestinal and respiratory. Preventive public health inputs are needed, which will take care of the reservoir of infection, as also personal cleanliness and hygiene. Unfortunately, as it now stands, PHC barely touches the fringe of this problem.

Curative services when made available in time and effectively, can contribute to a reduction in the severity and duration of many, if not all, infections thus reducing morbidity load, though they cannot reduce the number of infective episodes. PHC can be of positive help through this input, though it is difficult to quantitate its contribution *per se* in either reducing the prevalence of anaemia or in improving the growth status of children.

The distribution of iron tablets has long been recognised as a simple and inexpensive way of combating anaemia. Though it is difficult to visualise this approach to control anaemia in entire communities because of logistic problems, special groups such as preschool children, school children and pregnant women can be effectively covered through PHC. A major bottleneck in its effective implementation seems to be poor subject compliance, because taking the tablet is not perceived as a felt need. What is needed therefore is to motivate women and children to regularly consume the tablets. The training of health workers in the art of communication and motivation has by and large been a sadly neglected area and obviously needs to be taken up seriously. Fortunately, the new technology of fortification of common salt with iron offers an opportunity to control the anaemia problem, despite limitations in the PHC system.

Concluding comment: It would appear therefore that, as they are now being operated, PHCs are not as effective as they