ECONOMIC ASPECTS OF HEALTH MANPOWER IN NEPAL*

—Dr. B. P. Shrestha.×

The problem of health manpower cannot be considered in isolation. The nature of the problem varies with the type of health delivery system which we would like to have in our country. What is the kind of health care considered to be more appropriate to our present socio-economic situation? What is the best system of delivering such services? When should these services be provided on a priority-basis? I have raised these questions not because I can answer them. But these questions must be answered before we can discuss the problem of health manpower in a meaningful manner.

In a situation like our own one can hardly justify the health planning-model which is inspired by the recent trends in the highly developed industrialised countries of the West where the focus is shifting on hospital and hospital-based specialists for a high quality care of individual patients. If we were to follow this model, we would have to remain content with a few well equipped hospitals located in selected urban complexes and manned by specialists and professional personnel, while the vast majority of the people in the rural areas continue to remain without an elementary type of medical care for a long time to come. It is expensive to produce a specialists or a professional personnel. It is even more expensive to use his service in a meaningful and effective manner. A physician, trained in scientific clinical medicine will not be satisfied with his job, if he is asked to work in a place where there is no laboratory, nor radiological facilities, nor a full range of pharmaceutical supplies and supporting paramedical staff, let alone the congenial social environment providing him with intellectual company and communications. Dr. Oscar Gish has rightly observed that "If medical

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× Member: National Planning Commission.

training has prepared a doctor only for medicine as practised in a multi-million dollar teaching hospital which accostoms him to expect facilities which can not be reproduced elsewhere in his country, and which disenchant him from subsequently working in a district hospital. Then he must either practice in his country's capital city or go abroad." Even if he does work in the capital city his specialized knowledge and skill will remain underutilized. Therefore, medical education and health manpower planning, which have no relevance to a given socio-economic situation, not only creates the so-called problem of the "brain drain" but also entails considerable wastage of scarce resources of the poor countries.

In a country like our own where the present level of development does not provide more than \$ 60-70 per capita income per annum it is too early to think of hospital-based health care on an extended basis as in the advanced countries where per capita expenditure on health services alone are between \$ 100 and \$ 300. The population structure is also conspicuous in developing countries by its broad based and sharply tapering age-distribution indicating a high proportion of population—as high as 30 percent or more, below the age of 10. This high proportion of young population without proper and adequate medical care should result in high infant and childhood mortality rates. It is no wonder, therefore, that half or even more of all deaths in developing countries occur in children below 5 years of age in contrast to the situation in highly developed industrialized countries where deaths occur mostly from the diseases of heart and blood vessels among the people between 50 and 70 years of age.

If infant mortality can be reduced significantly, the problem of "population explosion" can also be alleviated to a considerable extent on a long term basis. It may be argued that the decline in the birth rate as a falling death rate may be due to decline in the death rate itself. If infant mortality is high, a family desirous of having just a few adult children must give birth to a large number of children. For instance, in a society where 60 per cent of children born never become adult if the average family wishes to have only three adult children it must give birth to eight children, 5 of whom, on an average, die in childhood. When more children survive, parents realize the burden of having more children when a small of births can satisfy their urge for family continuity and need for the support in old age. The parents will, then, change their attitude towards childbearing. The population problem and family planning efforts should, therefore, be linked with the problem of reducing infant mortality with both preventive and curative methods on an outreach basis.

Besides, more than 90 percent of our population lives in rural areas as against 5 to 10 percent in the U. K. and the U. S. A. In so far as the causes and incidence of diseases differ in rural and urban environments, the types of health care and manpower should differ accordingly. The heavily rural based population structure in developing countries like Nepal is an indication of their pre-industrial stage of development with a larger proportion of labour force working on land and eking out a precarious living against heavy odds. Nepal is one among the few countries where economic progress is inextricable bound up with agriculture which provides employment to more than 90 percent of the labour force and generates about two-

thirds of the gross domestic product. In a number of developing countries, agriculture is one of the major economic sectors in which labour component is the most dominant input of production. Where labour is the primary input, health as an imbodyed part of labour component is obvious and as such, a positive effect of health input on subsequent output cannot be ruled out, though there is a very little study made so far to establish such health input-output relationship in quantitative terms. The problem of identification between "economic progress gains" due to health input and "health gains" due to economic progress is equally complex. The pioneering work on such complex relationships is undertaken by Prof. Wilfred Malenbaum. In his opinion there are three ways in which improved health may increase output: (1) by increasing the energy potential of workers, (2) by making additional land and resources accessible for use and (3) by improving the motivation or attitude of workers. These possibilities of positive effects of health-input in the process of output-growth should be more seriously considered in planning health services and health manpower in a developing country like Nepal where labour is the most crucial component of development. This is one area where our Nepalese social scientists and medical scientists and practitioners can sit together and pool their knowledge for an inter-disciplinary approach to development via improvement of health input.

There are other social, moral and egalitarian considerations, no less important than those mentioned above, which should dominate our thinking on future planning for our health delivery system in the country. Over the past few years, while health facilities were expanded appreciably, though not adequately, the remarkable tendency toward concentration is hardly reversed. On the contrary the tendency seems to be somewhat accentuated in qualitative terms. Between 1967 and 1971 while there was 55 percent increase in the number of medical graduates in Bagmati Zone, there was no increase whatsoever in 4 other zones and only from 1 to 3 percent increase in the remaining 9 zones. Out of 75 districts as many as 25 had no medical graduate in 1971, while Kathmandu district alone had 187 such graduates. The deployment of health manpower under the Directorate of Health Services of HMG indicates that there is at present one doctor for every 9000 persons in Bagmati Zone as against 250000 persons in Rapti Zone. The distribution of middle-level health manpower also reveals the same pattern. Not only the distribution but also the composition of health manpower indicates a situation of an "inverted pyramidal structure" of our health programme with top-heavy paraphernalia but without any broad base at the grass root level.

On several considerations, we are concerned and indeed, confronted with the problem of reaching as early as possible our entire population with a health delivery system. As our own resources, both financial and manpower, are limited, we must find an alternative to a system which depends on hospital beds, costing several thousand rupees each. Some changes are already noticeable in this directions. The idea of an integrated health programme with what we call "Health Post" at the grass root level in rural areas is now on an experimental basis in two districts. This could probably serve as an alternative health delivery system, capable of reaching the masses at a level of cost that we can probably afford with some

assistance from outside. Such health posts, if properly staffed and managed, can very well take care of preventive measures as well as simple curative treatment, besides providing family planning services and maternal and child health care. It is only upon the broad-based, widely-dispersed and rural-oriented health posts, catering to the most urgent needs of the masses that we should think of building on an extensive scale, the other tiers in our health delivery system, namely district hospitals, regional and referral hospitals.

Once the decisions are made on all essential aspects of our health delivery system, we shall be in a better position to formulate our manpower training programme more realistically and meaningfully, both within and outside the country, so that, at the operational level, the health programme does not suffer any setback for want of trained hands in time. The National Planning Commission has done some exercises, indicating roughly the requirement of additional medical personnel at various levels during the current Fourth Plan period. It is found that, over the plan period, while the number of medical graduates may fall short of the requirement by only 47, the diploma holders at the middle level will be less than the required number by as many as 524. If we were to expand and extend our health delivery system at the grass root level along the lines suggested above, obviously the most serious constraint will be the shortage of middle level manpower such as nurses, auxiliary health-workers, assistant nurses midwives and laboratory technicians. The Institute of Medicine is established only recently and all the existing training facilities have also been integrated and brought under its purview. If planned in time, I am hopeful that we can gear up our training programme to meet our needs of middle level manpower.