

NEHRU ON HEALTH

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ABSTRACT

Pandit Jawaharlal Nehru's ideas have been compiled in this paper in the form of his utterances and sayings. These have been collected and compiled from different sources including special issues of Journal like Swasth Hind from Central Health Education Bureau etc. The sayings were his views expressed from time to time by him on the following subjects: (i) Family Planning; (ii) Public Health; (iii) Cooperation of Voluntary Organisation; (iv) Priority and Policy for Children; (v) Pursuits of Health; (vi) Ancient Vs. Modern System; (vii) Health and Environment; and (viii) National Health Service.

MODERN MEDICINE

"Modern Medicine", said Nehru, "is based on scientific approach.... the approach of a knowing mind, which is prepared to accept anything that factually or theoretically justifies itself and which goes ahead on the basis of it."

- **Jawaharlal Nehru**

FAMILY PLANNING -SOCIAL OBLIGATION

The success of any family planning programme in India requires that it should be linked with a general advance on the economic, social and educational fronts. If this major aspect is ignored we would be building on whole insecure foundations. The Government of India is the only Government to adopt policy of family planning. No other Government had made such an integrated approach to the problem. In spite of the Government's interest in the matter, family planning work in the country has been relatively slow. But a sure foundation has been laid to compensate for it. **(Extracts from the address to International Conference on Planned Parenthood, New Delhi, 14 February, 1959.)**

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Jawaharlal Nehru

PUBLIC HEALTH

More and more stress is laid on this aspect (social well-being) all over the world. In fact, the whole science of medicine which some hundreds of years ago was largely concerned with what might be called individual treatment, has undergone a change of outlook. Of course, the aspect of individual treatment is still there but that is now a very minor aspect of the problem and certainly from the State's point of view

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it is infinitely less significant than the other important aspects, namely, general public health, sanitation, hygiene, etc. The whole conception of health and medical treatment has changed in the last few generations and because the conception of health and medical treatment has changed, because people not look more to public health and not so much to the private health of individuals, there has taken place a tremendous improvement not only in public but also in private health. ***(Extracts from the Inaugural Address at the Health Ministers' Conference held in New Delhi on 31 August, 1950.)***

-Jawaharlal Nehru

MATTER OF URGENCY

There are two aspects of this growth of population. The one with which we are most concerned is that it comes in the way of our economic advance and keeps standards low even though we might be making progress in other directions. The other aspect is that this tremendous world growth of population is eating up the world's resources and industrial materials at a terrific pace. If the entire world functions in this respect as the United States of America is doing today, then probably by the end of the century all the essential materials in the world that are available today will be consumed. That is of course unlikely but even if the rate of consumption in other countries is much slower, the available materials cannot last for more than a few hundred years.

Thus two consequences flow: One is that we must check the rate of growth of population and the other, we must find other power sources and materials. Possibly the development of Atomic Energy will provide us with other sources of power. We in India are most concerned with checking the growth of population and this has become a matter not only importance but of urgency. ***(Extracts from the speech "India Today and Tomorrow" on 22-23 February, 1959 in New Delhi.)***

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Jawaharlal Nehru

COOPERATION OF VOLUNTARY ORGANISATIONS

The cooperation of voluntary organisations should be enlisted in every possible way and the Central Government and the Central Board could do much in this direction. If things were left to be done by State Board alone, no great results could be expected. Instead of depending on governmental organisations, non-official agencies should be encouraged to the fullest extent. There should be two approaches to the problem, one through State and the other through voluntary organisations.

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Jawaharlal Nehru

NATIONAL POLICY FOR CHILDREN

The building up of a nation depends on building men and women and the process of building men and women depends very considerably on what is done to children. It is, therefore, of high importance that we pay attention to the well-being

and growth of children. The basic Habits formed in the early years and the way their minds have been conditioned then, will play an important part when they grow uptherefore, a great deal of attention should be paid to children and a national policy should be laid down.

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Jawaharlal Nehru

PRIORITY FOR CHILDREN

"My attention is specially attracted towards children, not merely because I like children, but because these children who will grow up, will be the future citizens of India, It pained me to see that some of these children are not properly looked after and attended to. It is not the fault of their parents. If you like, it is the fault of the circumstances or whatever they may be. I think all of us have a certain responsibility to see that children in this country are properly looked after."

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Jawaharlal Nehru

BETTER CONDITIONS FOR HEALTH

One fact does stand out and that is' how the age, the expectation of life, has gone up during the last 15 years or so. In the 40s it was supposed to be 32 and is now 47.5 (1961). That is a fairly big jump and, quite regardless of many other things that might have gone to make this up, it is an indication not only of the health of the people having improved but even the general well-being of the people having gone up.

It is an important fact. It seems to be almost the single most important fact in looking at the past 14 years of India's history in this respect and I gather that this expectation of life is going up and will no doubt, go up.

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Jawaharlal Nehru

FOOD AND HOUSING

Now, public health is, something that is obvious and probably somewhat trite; nevertheless, trite things must be repeated again and again. Public health depends far more on factors other than just drugs and medicines. It depends primarily. I should say, on the sufficiency of food. What is the good of your trying to treat a man who is starved or who is under-nourished? He is weak; he cannot resist disease. Public health depends next on decent living conditions, such as housing. Next to food, housing seems to be far more important from the point of view of public health than all the medicines in the world. This accounts for the fundamental idea of changing the environment, of providing environmental hygiene. Not only are its effects physical but they also affect the mind tremendously.

So from the point of view of health you branch off into subjects which are not directly concerned with you at ail and yet which fundamentally affect you, such as the question of food and housing. Of course, there are other things, too. You might speak of education.....

- **Jawaharlal Nehru**

SLUMS

We have at last become conscious of slum areas. That is undoubtedly some gain though, by itself, it does not take us far. The consciousness of this problem has brought the realization of its urgency and, at the same time, of its magnitude. Looking at these slums and the sub-human conditions in which men and women live there, we feel that immediate action must be taken to change all this. And then the vastness of the problem confronts us and we feel a little overwhelmed. **(Taken from "Slum Clearance and Urban Renewal in Delhi - 1958")**.

FREEDOM FROM HUNGER

In India, with its vast and growing population, this problem is very near to us, and we cannot afford to delay its solution. Progress has been made here, but the pace of change has to be more rapid in order to be fully effective. **(From a message on the "Freedom from Hunger Week", on 16th March, 1963).**

- Jawaharlal Nehru

PHYSICALLY A-1 NATION

I claim to have good health and I am prepared to meet anybody of my age in most contests, physical or other. If they want to run a hundred yards, I will run with them; or if they want to swim, I will swim with them; if they want to ride, I will race with them on horseback. I may not be quite so active and agile as I was then, twenty or thirty years ago; nevertheless, if I may take you into my confidence, I have always attached a good deal of importance to the body. It is everybody's duty to be fit and strong. I have always had an acute dislike for illness or feebleness. I do not sympathize with anybody's illness. I say so because many people here think that it is aristocratic to be ill and feeble. I want young people and old to be healthy and strong and agile, and I want them to be physically an A-1 nation. I do not think we can really make much intellectual progress unless we have a good physical background.

This type of education which presumes to concern itself only with the reading of books is from any point of view incomplete. You may become a distinguished mathematician or an eminent individual otherwise, but you will find you will be an even better mathematician if your body functions properly. I do not like persons going about with a bent back. I want them to be straight like a ramrod and walk erect. I want them to be quick in their walk and not to saunter and loiter, as many do. Basic education stresses both things - physical or cultural fitness and the ability to do things with the hands. You can take it from me that if your hands can do things, your mind will work more satisfactorily. **(Extracts from Jawaharlal Nehru's speeches, 1953-57.)**

TIME FOR WORK

There is a time for work and there is a time for play, just as there is a time for laughter and there is a time for tears. And today, is the time for work in this nation. For, this generation of ours, if I may say so, is condemned to hard labour. You cannot get out of it, however, you may want to. We are all condemned to hard labour. But, then, it makes all the difference what kind of labour we do, in what spirit we approach it. If it is

labour, good work, then that is an uplifting thing. It does not matter how hard work you work. People come and tell me, do not work so hard, you do not sleep enough. As if that counts. What counts is something entirely different. No man ever died of hard work, if he is working in a good cause, if his spirit is in it, but people do die of ennui and other things. So you and I have got to work.

"..... We are all condemned to hard labour.

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Jawaharlal Nehru

PROBLEMS WE FACE

The problems increase in size and become very big. We are dealing with them and we shall continue to deal with them with a measure of success, I think, the odd thing is as we succeed, other avenues open out and other and more difficult problems face us. That is a measure of success. It is only those people or those communities that are not moving and that are stagnant, that have practical no problems before them. We in India are moving and, I believe, are moving fairly fast and with a certain dynamism behind that movement and so, problems surround us. Health is one of them; education is another basic problem, and behind it all there is the economic betterment which gives us the capacity and the means to deal with these other problems.

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Jawaharlal Nehru

WORK IS WORSHIP

Unfortunately, in our country, there has been a tradition that manual labour is something bad and degrading and meant only for the lower-class people. I doubt if anything has done more harm to India than this peculiar and fantastic notion that manual labour is meant only for the lower class people and that the upper-class person should not use his hands but should do what is called mental or intellectual work. That idea still persists. I can only describe it as a wrong and pernicious idea. I do not think that any nation, which thinks that way can really progress. Manual work is essential even from the point of view of physical development, apart from anything else. *(Extracts from Jawaharlal Nehru's speeches 1953-57.)*

WORLD VIEW OF HEALTH

Health is a very big word and I see it is defined in the objectives of WHO Charter. I am happy to read that you have defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." If you achieve that objective, I am sure you would have solved the whole problem in the world, because if we can achieve that nearly every problem disappears from the world. So I am happy that you too may eventually, even though perhaps we cannot achieve that end quickly, reach that goal, or something really worthwhile.

It is also well-known today that you cannot isolate the world and make part of it healthy and leave part of it unhealthy, because infection spreads; everything spreads. Today if there is war, it spreads; if there is disease, it spreads; and therefore, you have to tackle the world as a whole. Then in tackling the world as a whole, it

becomes more necessary to tackle those parts which have been backward in any particular respect. Therefore, the tackling of the health problems of South-East Asia is particularly important and I am happy that the regional system of tackling these problems is developing, so that more attention may be paid to these particular problems of particular regions. ***(Extracts from the Inaugural Speech at the First Meeting of the Regional Committee of the World Health Organisation for South-East Asia, New Delhi, 4 October, 1948.)***

PERSUIT OF HEALTH

The pursuit of health or the raising of the health standards of the nation does not mean merely the curing of disease, but much more so the prevention of it. Thus, while hospitals and the like are necessary, what counts most is the public health approach as well as health education. Health today does not consist merely in the avoidance of bodily ailments, but comprises in its scope the health of the mind, which has a direct effect on the body, just as bodily ill-health often affects the mind.

I am sure that the very first consideration in raising the standards of health of the nation is to supply adequate food, properly balanced. Poverty and Health do not go together. Therefore, it is really more important for the health of the individual as well as of the community, that there should be adequate nutrition. To this, I should like to add that food habits should be encouraged which would ensure a balanced diet. Unfortunately, we in India suffer most of all from inadequate nutrition, and even those who can afford to have what food they like, have seldom a balanced diet. Then, there is the necessity of a pure water supply, which is still lacking in a great part of our rural areas, though some progress has been made.

A war on disease and ill-health is, therefore, essentially a war on poverty and all its evil brood. In effect, it is the raising of the standards of the nation in every way, and we come back to our Five Year Plans whose aim it is to do this.

But while this is being done, some special attention has necessarily to be paid to the curative aspect as well as to the elimination of various painful diseases which affect large numbers of our people and either kill them or disable them. ***(Extracts from the Foreword by Shri Nehru to "Health in Independent India" by G. Borker.)***

PEOPLE'S COOPERATION

You cannot attain success without the people's cooperation; you cannot attain success without raising the morale of the people for the task. If the people think that the country is going ahead, their morale goes up and there by their capacity to work increases. If the people think that we are where we were or worse, their morale goes down, their desire to help goes down, their capacity to work goes down and this effects you and me and everybody else and all our work suffers. Now, of course, there are many kinds of work, very important work, which do not show immediate results and there are many kinds of research which the public are not in a position to judge. In fact, the public may even be rather amused or critical about research and yet such work is highly important and every country must carry it on so that it may

yield results in the future. ***(Extracts from the Inaugural Address at the Health Ministers Conference held in New Delhi on 31 August, 1950.)***

HUMAN FACTOR COUNTS MORE

I would like to lay stress on research. Having laid stress on research I should like to lay stress on another aspect, which perhaps is the opposite of research. That is if we are all too research minded, we begin to live in ivory towers which are useful but which cut us off from the community we seek to serve, and we may not, therefore, take a proper and balanced outlook of the problems we have, because the problem, we have, may be a subject like mathematics, a problem of mathematics may be completely diverted from any human being you have to deal with without knowing anybody else and achieve results. But that is not so in most other subjects, certainly not in any subject connected with medicine which deals with human beings. Therefore, it is of the utmost importance that we should not be too ivory tower inclined and the human aspect should come up before us all the time. ***(Extracts from the Inaugural Address at the Medical Education Conference held in New Delhi on 23 November, 1961.)***

HEALTH IS INDIVISIBLE

I believe, knows, physical health is very much dependent on mental health. You can hardly separate the two. And the world today which can deal with the problem of physical health satisfactorily enough, though it may take a little time, has still to find ways of dealing with mental health of nations and groups and communities. ***(Extracts from the Inaugural Speech at the XIV World Health Assembly held on 7 February, 1961 at New Delhi.)***

ANCIENTS VS MODERN SYSTEM

There is much controversy often about the place of the Ayurvedic and Unani systems. There can be no doubt that both these ancient systems of India have an honorable history and they had a great reputation. Most people know also that even now they have some very effective remedies. It would be wrong and absurd for us to ignore this accumulation of past knowledge and, experience. We should profit by them and not consider them as something outside the scope of modern knowledge. They are parts of modern knowledge. But, in many directions, modern science, as applied to both medicine and surgery, has made wonderful discoveries, and, because of this, health standards in advanced countries have improved tremendously. We cannot expect to improve our standards unless we take full advantage of science and modern scientific methods. There is no reason why we should not bring about an alliance of old experience and knowledge, as exemplified on the Ayurvedic and Unani systems, with the new knowledge that modern science has given us. It is necessary, however, that every approach to this problem should be made on the basis of the scientific method, and persons who are Ayurvedic and Unani physicians should have also a full knowledge of modern methods. This means that there should be a basic training in scientific methods for all, including those who wish to practice Ayurvedic or Unani systems. Having got that basic training, a person

may practise either of these systems or homoeopathy. **(Extracts from Foreword to "Health in Independent India" by G. Borker.)**

RID INDIA OF SMALLPOX SCOURGE

"..... I am writing to you about a matter which may perhaps appear to you unimportant, as it is not political but which is I think of essential importance. This is the eradication smallpox, a perfectly preventable disease. It has indeed been eradicated from many countries of the world. Unfortunately, our country as well as Pakistan are considered to be important foci in the world from which there is danger of importation of disease to other countries. It will be a great thing for us to rid our country of this scourge which has caused so much sorrow and suffering to our people **"(From Smallpox Number of Swasth Hind, August-September-October, 1962.)**

- **Jawaharlal Nehru**

QUALITY OF THE INDIVIDUAL

It is always the quality Of the human being that counts - physical quality, mental quality, spiritual if you like, that is what makes a nation. And a doctor's job is to see that the quality of the individual is kept up.

- **Jawaharlal Nehru**

FIGHT AGAINST WHITE PLAGUE

Tuberculosis eats into the vital of the nation and often takes the best of us. There is hardly a family which has not some experience of its ravages. And yet this scourge can be fought and overcome.

Apart from the direct measures to be taken to eradicate this disease, it seems to me that we have to aim at basic improvements in living conditions. It is often these conditions that breed the disease. It does little good to go on trying to cure the disease and yet leave the breeding grounds intact. Thus, the fight against tuberculosis must primarily concern itself with a fight for healthier living conditions of our people and for the removal of slum areas. **(From a message to the Delhi State Conference of TB Workers held in New Delhi on 28 October, 1958.)**

- **Jawaharlal Nehru**

HOUSEHOLD REMEDIES

Secondly, I think that by our research work, we can find out new drugs possible of curing diseases, and not only for ourselves but for the world. I have no doubt that an intensive research on scientific lines in many of the old household remedies or traditional remedies would probably lead to very fine results. I entirely agree with Sir Edward Mellanby that if after research something is found to be ineffective and not good, it should be discarded absolutely and completely and not permitted to function. But you may find and you are likely to find many good things. **(Courtesy: Science Reporter, Nehru Commemoration Number, July-August, 1964).**

- **Jawaharlal Nehru**

WATER FOR ALL

Water supply is very important. Water supply for villages is even more important than that for the towns, important cities.

It is astonishing that there are still areas in India where good water is not available and men and women specially have to go long distances to fetch a little water. Good water and clean surroundings will probably do more for the health of the country than all the medicines and other things that you may import or manufacture here. So I would suggest making a special effort for such things.

Let it be a definite goal that there should be no village in India where water is not available and housing progresses rapidly. It can be done. ***(Extracts from the Speech at the Ninth Meeting of the Central Council of Local Self-Government on 6 September, 1963).***

EDUCATION ESSENTIAL

The most revolutionary change that is taking place in India is the rapid spread of education at all levels and particularly the education of girls. These educated girls are likely to influence society and probably succeed in carrying this message of family planning further than some of the social workers.

Social workers should understand rural minds and mould their thinking so as to influence them. The rural masses are overcoming the initial shyness at the mention of family planning and there is beginning a realization that family planning is a matter deserving their consideration. ***(Extracts from the address to International Conference on Planned Parenthood, New Delhi, 14 February, 1959).***

RURAL HEALTH

While our cities and towns require to be looked after much better than they are at present, it is really the village that has been terribly neglected and cries loudly for succour. Public health must, therefore, go to the village, and the villager should not be compelled to come to the town in search of it. Our community development movement will, I am sure, play a very important part in this extension of public health services to our rural areas. I think that mobile vans should be increasingly used for this purpose in our rural areas. ***(Extracts from the foreword by Shri Nehru to "Health In Independent India" by G. Borker.)***

COMMONSENSE IN DEALING WITH HUMAN BEINGS

Surely the approach should be constructing relatively small simple hospitals with simple equipment, not terribly expensive equipment, again attached to some bigger hospital, wherever it may be, in the neighbourhood, so that 90 per cent, or whatever the percentage may be, of people who come for treatment are treated there. If special equipment is required and is not there, they can be sent on to the bigger hospital, or somewhere else. It is no good having all type of duplicate and X-ray special equipment, this and that in every big centre. It is too costly because you want a special man to deal with it and so on and so forth.

Therefore, one might think in terms of evolving small hospitals, whatever it is, 20, 30 beds in rural areas, with some fairly competent man in charge who can deal with the average cases and who has the competence to send more important cases to a larger hospital. ***(Extracts from the Inaugural Speech at the Medical Education Conference at New Delhi on 23 November, 1961.)***

HEALTHY ENVIRONMENTS

What is the use of building hospitals unless preventive measures are taken?

.....While we produce these sulpha drugs we must also work towards producing the atmosphere where disease would become impossible. ***(Extracts from opening address at Dye and Pharmaceutical Factory at Parnera in Gujarat in 1952.)***

SEARCH FOR TRUTH

A country's advance is therefore measured by the kind of good research work that is being done in that country. Now research work more and more now-a-days is done not so much by brilliant individuals, although brilliant individuals always count and are welcome, but it is done in a group sense, in a cooperative sense; anything big today in science is usually done by a group functioning together, led of course by an outstanding person. ***(Extracts from the Inaugural Address at Medical Education Conference held in New Delhi on 23 November, 1961.)***

TIPS FOR DOCTORS

Of course an average doctor has to deal with human beings all the time. In fact, apart from his medical qualifications, whatever he may have, a good doctor is supposed to have all manner of things like the bedside manner but that is a rather feeble description of it. A good doctor has a psychological and many other approaches to make the patient confident and all that because it is, becoming increasingly known that a person is ill or well partly no doubt because of some disease he may have but largely because of his mental state. He will get well if his mind is intent on getting well. He will remain ill if he is always wailing and tearing his hair about his illness. He ought to remain ill if he has got this type of mind. Nobody wants that type of man to get well. Nothing is more discouraging in life as people who are complaining about their ailments all the time. That is a peculiar malady from which India suffers. I hope anyhow members of the medical profession will not encourage this kind of thing even as a bedside manner. ***(Extracts from the Inaugural Address, at the Medical Education Conference held in New Delhi on 23 November, 1961.)***

CAMPAIGN AGAINST - HUNGER

We have now the campaign against hunger. We have other campaigns which are very good and should be encouraged. The fact is that these things go together. If there is poverty, all the rest of the brood of poverty come - hunger, disease, illiteracy and squalid living. We have to go to the roots of this matter and going to the roots of this involves attacking the evil as it is; and it involves large-scale investments in

these countries, investment to improve the human beings there, not only the agricultural output and the industrial output, but improve the human beings. Much has been done, but compared to what can be done, it is relatively little.

If it was accepted that war was not likely to take place, war had been practically put out of bounds, then all the money that is spent in preparations for war could be utilized to better purpose. And we would see the world improving with rapidity and all these basic evils gradually being tackled, just as we tackle, say malaria, put an end to it, or typhoid and illiteracy. **(From the Address on United Nations Day on 24 October, 1963.)**

- Jawaharlal Nehru

PLANNED EFFORT TO ERADICATE MALARIA

It is obvious that of the many fell diseases that we have to face in the world and more specially in the somewhat under developed parts of the world, malaria is one of the worst, in some ways the worst I should say, the others worse than it of course, more painful, more terrible, more fatal of you like but perhaps the way this affects and enfeebles a population, malaria kills a number but enfeebles far more, is really, it seems to me, almost worse than sudden death in a large number of cases. I would rather have sudden deaths than fading out of the vital energies of the people.

Now, you know, so I understand and it has been established by evidence and experience that malaria can be totally eradicated. It has in fact been eradicated from fairly considerable areas. Therefore, it follows obviously that every effort should be made to bring this about.....as there is a grave danger of going slowly lest the enemy might get accustomed to your weapons and then it will not be easy to master it. And in this, as in other matters which affect us in under-developed countries, pace and the speed of advance become all important. Of course, the other forces working which come in the way and it you do not go fast enough, the other forces go faster and you do not go at all. While you are making a great effort, in fact you are standing still. Therefore, you have to make greater effort in order to overcome them. I entirely agree with what has been said that a big concentrated planned effort should be made to eradicate malaria. After all, various serious diseases have been eradicated from large parts of Europe, America and elsewhere, very uncommon now there. There is no reason why the same thing should not be done here. **"Extracts from the speech at Malaria Conference, New Delhi, 16 March, 1959.)**

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इस लेख में पंडित जवाहर लाल नेहरू जी के विचारों को उनके उद्गारों एवं उक्तियों के रूप में संकलित किया गया है। इन विचारों को केन्द्रीय स्वास्थ्य शिक्षा ब्यूरो द्वारा प्रकाशित स्वास्थ्य हिन्द जैसी पत्रिका के विशेषांकों एवं भिन्न-भिन्न स्रोतों से एकत्र एवं संकलित किया गया है।

ये उक्तियां समय-समय पर नेहरू जी द्वारा निम्नलिखित विषयों पर व्यक्त किए गए उनके विचार हैं: 1- परिवार नियोजन, 2- जन स्वास्थ्य, 3- स्वयं सेवी संस्थाओं का सहयोग, 4- शिशुओं संबंधी प्राथमिकताएं एवं नीति, 5- स्वास्थ्य प्रवर्तन, 6- प्राचीन बनाम आधुनिक स्वास्थ्य प्रणाली, 7- स्वास्थ्य एवं पर्यावरण, और 8- राष्ट्रीय स्वास्थ्य सेवा।

NEHRU ON POPULATION

B.L. Raina*

ABSTRACT

The author draws on his professional and personal account in this paper and clearly brings out Pandit Nehru's interest in family welfare movement since its inception, (i) Author mentions that Nehru was wholly in favour of family planning and for him family welfare was more than fertility reduction. To Nehru family welfare comprised of a fuller life to family and more particularly to mother and children. (ii) Nehru's deep commitment and involvement in day-to-day mundane Implementation of health and family welfare programme has been reflected through his personal notes to the ' then Health Minister. One of such was when he pointed out that family welfare posters meant for Punjab were by mistake delivered to another State and he sought clarification. This showed his abiding interest in the implementation of programme. (iii) Another pointer was his readily agreeing to attend the Central Family Planning Board meeting to know the reason for delay in use of pills in services. (iv) His personal influence also gave broad scientific dimension to the family welfare programme and resolved the differences between Ministry of Health, Social Services and Planning Commission.

A great deal has been already written about Nehru. He is recognised as an outstanding intellectual and a politician of world-wide. Lord montgomery in his 'The Path to Leadership' has stated that "if ever a man had the hallmark of greatness it is Nehru". He was unique idealist with sensibilities of a realist. He gave deep thoughts to freedom of the individual, to raising quality of life of the people, peace and even to higher levels of development. He explored problems, national and international, in historical perspective. There have been critical voices on some aspects of his policies. They were based on individual perceptions and lack of full appreciation of pressures and circumstances. He struggled to fulfill the fundamental rights guaranteed in the constitution, of which he was one of the main architects. The Constitution of India has guaranteed certain fundamental rights to the citizens of India and enunciated certain Directive Principles of State Policy, in particular that the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social economic and political, shall inform all the institutions of national life and shall direct the policy towards securing, among other things: (a) that the citizens, men and women equally, have the right to adequate means of -livelihood; (b) that the ownership and control of the

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material resources of the community are so distributed as best subserve the common good; and (c) that the operation of the economic system does not result in concentration of wealth and means of production to the common detriment. This brought into focus the improvement in social and economic situation through planning. Population issues emerged as the very centre of development.

Glimpses of some of his views on population are given below such as the need for defined objectives and collection of basic data; planning for development; scientific approach; impact of technology; social causes, institutions and relations; the need for continuous dialogue between politicians and experts; determinant of fertility; global approach; relationship between birth control and development; aspects of family planning other than control of births and his deep commitment. The period when his interest in family planning began has also been explored.

INTEREST SINCE INCEPTION OF FAMILY PLANNING MOVEMENT

Nehru was aware of the population debate for a long time. He was familiar with Beasant and Bradlaugh trial in England, which had triggered the family planning movement. He came in very close contact with Annie Beasant when she became a theosophist and made Adyar Madras as her headquarters'. In early 1930s Nehru had visited the British Control Information Centre in England. Mrs. Laski is reported to have said "I well remember the time Jawaharlal Nehru came to one of our weekly lunches and how sympathetic he was towards our work²". The extent of influence of these early contacts is difficult to estimate. His familiarity with the international birth control movement, however, is evident.

EMPHASIS ON BASIC DATA AND WELL DEFINED OBJECTIVES

On his initiative the political party to which he belonged the Indian National Congress gave serious consideration to population issues. The Indian National Congress was struggling to achieve independence from the British Raj. The major objectives were eradication of poverty, removal of inequalities, and establishment of social justice. The All Indian Congress Committee resolution of May 1929 reads "in order to remove the poverty and misery of the Indian people and to ameliorate the conditions of the masses, it is essential to make revolutionary change in the present economic and social structure of the society and to remove gross inequalities". "In 1937, when Congress Governments were established in eight of the eleven provinces, the Congress Working Committee recommended to the Congress Ministries, the appointment of committee of experts to consider urgent and vital problems the solution of which was necessary to any scheme of reconstruction and social planning". Such solution the resolution stated would require extensive surveys and collection of data as well as clearly defined objectives³.

PLANNING FOR DEVELOPMENT

He was strong advocate of national development through planning. The policy of development through planning process was not fully supported by all elements of the Congress. On Nehru's insistence the National Planning Committee was formed

in 1938. One of the problems of consideration of the National Planning Committee was of population and family planning. All elements of the Indian National Congress, however did not seem to support fully such activities. Nehru states "important elements in the Congress, under whose auspices the Committee has come into existence, rather looked upon it as an unwanted child, not knowing how it would grow up and rather suspicious of its future activities⁴". His personal support led to the continuation of work of the National Planning Committee and its sub-committees; including the expert sub-committees on population. After independence the Planning Commission was set up in March, 1950.

SCIENTIFIC APPROACH

Nehru's approach was based on humanism, rationality and scientific outlook rather than on any fixed dogma. Addressing the National Academy of Sciences in 1938, he said "Science has brought all these mighty changes and all of them have not been for the good of humanity. But the most vital and hopeful of the changes that it has brought about has been development of scientific outlook in man". He further observed that "even today vast number of people still live mentally in the pre-scientific age and that most of us, even when we talk of science betray it in our thought and action, Even scientists, learned in their particular sphere often forget to apply scientific method outside that charmed sphere. And yet scientific method alone offer hope to mankind and ending the agony of the world. The world is rocked by fierce conflicts and they are analysed by many names. But essentially the major conflict is between the method of science and method opposed to science⁵". In a rather reflective mood he said "Science deals with the domain of positive knowledge, but the temper which it should produce goes beyond that domain. The ultimate purpose of man may be said to gain knowledge, to realise truth, to appreciate goodness and beauty - we may develop an integral vision of life which embraces in its wide scope the past and the present, with their heights and depths and look with serenity towards the future... the essential basis of Indian thought for ages past though not its later manifestations fits in with internationalism. It is based on fearless search for truth, on the solidarity of man, even on the divinity of everything living and on the free and cooperative development of the individual and the species over to greater freedom and higher stages of human growth⁶". His vision of population policy was in the broad perspective of scientific temper taking in its wide canvass the cooperative development of the individual and humanity world over their total environment including all living beings. Addressing the International Conference on Family Planning in New Delhi he emphasised that their approach should be scientific and aim social good, and any scientific approach must not be inhibited by pre-conception or conviction held already.

IMPACT OF TECHNOLOGY

In his book *Discovery of India*, which he wrote while in prison in 1944, he devoted a whole section on population. He wrote: "the eastern sweep of technology accompanying education and better public health will cover many countries in Asia, some of these countries like India far from needing a bigger population would be

better off with fewer people". "In Asia", he felt that much depends on the industrial development of China and India. Their huge populations are a burden and a weakness unless they are properly and productively organised. In Europe the great colonial powers of the past appear to have definitely passed the stage of expansion and aggression. Their economic and political organisation and the skill and ability of their people may still give them an important place in the world affairs, but they will progressively cease to count as major powers, unless they function as a group". He visualised the impact of diffusion of technology and quotes Frank W.N. Notesteim (from an article on Population and Power in Post-War in Europe in the American Foreign Affairs April 1944). He observed that "it does not seem likely that any nation of north-western and central Europe will challenge the world again. Germany, like her western neighbour has passed the period in which she could become a dominant world power, owing to the diffusion of technological civilisation to people that are growing more rapidly". Nehru was familiar with views of demographer like Notesteim but also genetics like Haldana.

SOCIAL CAUSES INSTITUTIONS AND RELATIONS

He tried to explore the courses of fertility trends in Europe. He cites the example of Ireland "which is a Catholic community and where contraceptives are presumably little used, a fall in birth rate started earlier than other countries. Probably the increasing postponement of marriages in the West is one of the causes. Economic factors may have had some influence but even that is hardly an important consideration. It is well known that as a rule fertility is higher among the poor than among the rich, as it is also higher in rural areas than in urban⁷". He obviously gave greater importance to social causes.

It may be recalled that decline in fertility in Germany and some other West European Countries began about 100 years after France. We witnessed a population explosion in the former with millions emigrating to "the New World". The cause of such difference can be traced to the French revolution which brought in tremendous change in social institution and relations. This historical experience must have impressed Nehru and reinforced his view to give greater importance to social causes of population growth.

DIALOGUE BETWEEN POLITICIANS AND PERSONNELS

Nehru considered a continuous dialogue between politician and experts essential to solve vast problems facing the country. When interim Governments were formed, he was strongly in favour of expert boards to investigate problems and suggest solutions, at central and provincial levels. He was aware of ambivalence of politicians and perhaps also administrators as his comments apply to both. He said "a politician dislikes and sometimes suspects the scientist and expert. But without that experts, the politicians can achieve little⁸". He further emphasised "an aggressive and widespread tackling of our problems by experts" and the need of dialogue between the politicians and the scientists. He said "we have vast problems to face and solve. They will not be solved by politicians alone* for they may not have

the vision or the expert knowledge; they will not be solved by the scientists alone, for they will not have the power to do so or the larger outlook which takes everything into its ken. They can and will be solved by the co-operation of the two for a well defined and definite social objectives⁹".

DETERMINANTS OF FERTILITY

He perceived decline in fertility through late marriages, the desire for small families, demand and increasing use of birth control methods, and also as a part of development in the total milieu, the life style, strains, stresses and ceaseless competitive, environment. He advocated living contact with nature, soil and land. His emphasis on the life giving soil did not mean "a return to the land in the old sense, of the word". That remedy he said "might be worse than the diseases". He felt that "it should be possible to organise modern industry in such a way as to keep men and women; as far as possible, in touch with the land, to raise the cultural level of rural areas. The village and city should approach to life's amenities so that in both there should be full opportunities for bodily and mental development". Even for ersatz products and amusements his attitude was liberal. He said "I have no objection to most of these. Some I think are definitely desirable, but they absorb much of the time that might often be better employed, give wrong perspective to life¹⁰".

NATIONAL AND GLOBAL APPROACH

As Prime Minister, the population problem had ceased to be a theoretical exercise. Nehru, addressing the Sixth International Conference on. Planned Parenthood, said, "There is today on the one hand, a growing consciousness of tremendous crisis that might arise in the world with indefinitely growing population. People are frightened more particularly in Europe and America than Asia. They are frightened of the vast masses of Asia becoming vaster and vaster, of the population of India. China, South East Asia swarming all over the place. Well, it is legitimate fear and we have to take that into consideration. But obviously, if the subject is approached from the point of Europe being overwhelmed by Asia, that is. not the approach Asia would particularly appreciate, however, much there is in it.... The matter has to be approached in different way, a global way". In the Indian context he said "the first we have to consider in planning is what will be the population for which we are planning. How much food they would require? How much clothing? How much housing? How much many other things - education, health? It (population) does not become a theoretical concept.... if our population goes up rapidly the necessity of some kind of limitation of that growing population becomes an urgent necessity for us¹¹".

BIRTH CONTROL AND DEVELOPMENT

On the place of birth control in development there were divergent views. One view was that the socio-economic, development in time would lead to decline in fertility. The other view projected by persons like Professor A.V. Hill was that our economic problems could not be solved without radical population reduction. The

debate still continues. Nehru was firmly of the view that social and economic development should be the goal and in the achievement of that goal there is urgency in limiting the rate of population growth. He did not fully agree with the view put forward by Hill. Such views he considered as escapist, an approach which fitted in with those who did not wish to change the existing set up, because then they could cast blame for every economic ill on the growth of population. He urged the Planning Commission that "that the escapist view" should be combated. Thus emerged the population policy as integral part of social and economic development in the First Five Year Plan.

FAMILY PLANNING MORE THAN FERTILITY REDUCTION

Besides limitation of rate of growth of population for development, Nehru considered family planning as necessary for other reasons also. He wrote to Lady Dhanwanthi Rama Rao the Chairperson Five Year Plan Family Planning Advisory Committee: "You know, I am wholly in favour of family planning. Certainly one of its principle objectives is to lessen the rate of population increase. But there are other aspects also, to give fuller life to the family and more particularly to mothers and children".

DEEP COMMITMENT

Nehru's commitment to population and development was very deep. His involvement in day-to-day implementation of development programmes including health and family planning has been notable. His abiding interest in family planning programme is evident from his personal notes to the Health Minister. For example, in one he pointed out that a poster on family planning displayed in a State had no relevance to the background of the people (in this case posters meant for Punjab were by mistake sent to another State and displayed). Another case Nehru wanted to know the reasons for delay in use of 'pills' in India as still another occasion. He readily agreed to attend the meeting of the Central Family Planning Board (second meeting). President Family Planning Association of India Dhanwanthi Rama Rao at this meeting had stated that delays in issuing grants to non-government organisation was frustrating, a large number of questions were raised by the Government on application for grants, progress reports, preparation of statements of accounts almost internal correspondence. Nehru suggested that Ministry of Health could send a team to Headquarters of voluntary organisations to help them in preparation of their proposals, reports, accounts etc. in a form acceptable to Ministries of Health and Finance. His suggestion led to formation of team for this purpose.

On Nehru's specific suggestion the subject of family planning was discussed for the first time at the meeting of the National Development Council attended by the Chief Minister of States. Nehru's personal influence gave broad social, economic and scientific dimensions to family planning programme policy. He resolved differences between then Health Minister and Member, Social Services in the Planning Commission. His approach was shared widely by the voluntary

organisations. Mrs. Avabai Wadia at the Sixth International Planned Parenthood Conference in 1959 said: "like Arjuna, our Prime Minister is leading a battle against hundred of enemies such as poverty, ignorance, uncontrolled births and other evils and population.... he has given a balanced view of what family planning is and the place of family planning can have in the total programme of the progress of the country. We in the Family Planning Association of India feel, as he has felt that it is not family planning alone that is going to advance our interests but family planning is integral part of the approach-economic and social approach that is to be made on all fronts in order to advance living standards". The goals laid down by Nehru were clear and explicit. The population policy laid down by Nehru laced population and family planning as priority issues but as integral part of development. The severest critics of the family planning programme in India concede that notable progress has been made since 1950s. No doubt much more could have been done. The pace of progress appears to be a part of historical process, economic, social and political environment indifferent regions and to great extent perceptions and attitudes of those responsible for implementation of the programme.

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इस लेख में लेखक ने अपने व्यावसायिक एवं व्यक्तिगत अनुभवों के आधार पर परिवार कल्याण अभियान के प्रारम्भ से लेकर पंडित नेहरू द्वारा इस कार्यक्रम में प्रदर्शित उनकी रुचि पर प्रकाश डाला है। (1) लेखक ने उल्लेख किया है कि नेहरू जी परिवार नियोजन के पूर्णतः पक्षधर थे और उनके विचार में परिवार कल्याण का अभिप्राय संतति निरोध से कहीं अधिक था। नेहरू जी के अनुसार परिवार कल्याण का अर्थ था परिवार के लिए सम्पूर्ण जीवन, विशेष रूप मां और बच्चे के लिए। (2) स्वास्थ्य एवं परिवार कल्याण कार्यक्रम की दैनिक क्रियान्वयन में उनकी गहरी रुचि प्रदर्शित होती है। (3) सेवाओं के अर्न्तगत गर्भ-निरोधक गोलियों के प्रयोग में होने वाले विलम्ब का कारण जानने के लिए केन्द्रीय परिवार नियोजन मंडल की बैठक में उपस्थित होने के लिए तुरन्त स्वीकृति प्रदान कर देना इस तथ्य का एक और उदाहरण है। 4-उनके व्यक्तिगत प्रभाव से परिवार कल्याण कार्यक्रम को एक वैज्ञानिक आयाम प्राप्त हुआ था और स्वास्थ्य मंत्रालय तथा समाज सेवा मंत्रालय और योजना आयोग में मतभेदों को दूर करने में सहायता मिली थी।

NOTES AND REFERENCES

1. There is some doubt about the commitment of Annie Beasant in birth control after she dissociated from birth control movement and became a theosophist. However, Professor R.D. Karve reported at the First All India Conference on Family Planning held by the Family Planning Association of India in 1951 that when questioned on birth control Dr. Beasant said: "it was permissible for those who needed it".
2. HOUGHTON, VERA (1954) 'The International Planned Parenthood Federation: Its History and Influence' in ***The Eugenic Review***. October, 1954.
3. The resolution reads: The working committee recommends to the Congress Ministries the appointment of a Committee of Experts to consider urgent and vital problems, the solution of which is necessary to any scheme of National Reconstruction and Social Planning. Such solutions will require extensive surveys and the collection of data, as well as clearly defined objectives....".
4. NEHRU, JAWAHARLAL (1946) "The National Planning Committee" in ***The Discovery of India***. The Signet Press, Calcutta.
5. NEHRU, JAWAHARLAL (1942) "The Progress of Science" Address to the National Academy of Sciences, March 5, 1938 in ***The Unity of India***. Lindsay Drummond. London.
6. NEHRU, JAWAHARLAL (1946) "Religion, Philosophy and Science" in ***The Discovery of India***, The Signet Press, Calcutta.
7. NEHRU, JAWAHARLAL (1946) *The Discovery of India*, The Signet Press, Calcutta.
8. NEHRU, JAWAHARLAL (1937) "Science and Planning" Address to the Indian Science Congress". December 26, 1937 in ***The Unity of India***.
9. **NEHRU, JAWAHARLAL "The Progress of Science". *The Unity of India*.**
10. NEHRU, JAWAHARLAL (1946) ***The Discovery of India***. The Signet Press, Calcutta.
11. NEHRU, JAWAHARLAL (1952) Inaugural Address. International Conference on Planned Parenthood. November 24, 1952, New Delhi.

LEADERSHIP DEVELOPMENT FOR HEALTH FOR ALL: KEY ISSUES AND PROSPECTS FOR INDIA

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ABSTRACT

The paper after defining, what is leadership also refers to the general outcome of the studies that there is absence/lackness of availability, accessibility, acceptability, and appropriateness of health care services. Present study raises some points also which are given as under: (i) Does Health for All call for a special sort of leadership and what can leadership do for Health for All?; (ii) In which areas or for which of these blocks could leadership either strengthened one or transformed one makes a difference; (iii) Which groups in the country have special opportunities or experiences in acting as prime movers to create change in health scene; (iv) People and community must not feel alienated, otherwise the efforts towards HFA goals will be weakened; and (v) Certain group of motives viz. 'achievement motive', 'extension motive', 'dependence motive', 'power motive' and combination of these motives, have been discussed for initiating and to stimulate leadership development.

Leadership development for Health for All (HFA) is a new initiative which has no precedents upon which to draw. The World Health Organisation's (WHO) Initiative on Leadership Development for Health for All is based on the premise that the implementation gap in the strategy to achieve HFA could be substantially narrowed if individuals in leadership positions understood more fully the process of developing and implementing the strategy, pursued its values, and developed within themselves the appropriate qualities and abilities to lead the way. Exploration of the leadership issue has led to the conclusion that leadership for HFA has to be generated as a collective force from all levels of the society. In essence, it is the development of group leadership or collective leadership which is the central concern. This is a shift from the concept of a single charismatic leader to the symbiotic leadership of many, working towards a common goal, with a shared common value system. Thus, the leadership development for HFA can be best described as: enhancing the ability and effectiveness of those involved to function as a catalytic force for change; motivating and enabling others to change and creating conditions whereby individual and collective interests harmoniously combine with and complement each other.

Recently, the forty-first World Health Assembly Technical Discussions in May, 1988, had their theme "Leadership Development for Health for All". The overall aim

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of the discussions was to further contribute to the capacities of "leaders" to influence, develop and implement national Health for All policies and strategies. The discussions also focussed on clarifying the leadership functions required to initiate change within national situations in response to the challenge posed by HFA and in dealing with crucial implementation issues. The process of leadership development within the national and international contexts was also explored.

In view of the theme of this year's Technical Discussions, the Discussions were to be evolved around three major questions:

1. Why Leadership for Health for All?
2. What can Leadership do for Health for All?
3. How can this Leadership be developed or enhanced?

These major questions further raised several inter-related key issues which have been examined in this paper from the perspective of prevailing socio-economic conditions in India. In the existing socio-culture milieu, the prospects, in this and other developing countries, for the kind of Leadership Development for HFA, as initiated by WHO, appear to be bleak. The viability of such a "Initiative" will heavily depend upon basic pre-requisites. As such, certain minimum conditions for effective leadership development, in a country like India, have been suggested at the end.

ISSUE - 1: WHY LEADERSHIP FOR HEALTH FOR ALL?

Are there gaps or blocks in achieving Health for All, realising its values, and reaching its targets in your national setting?

The Alma-Ata Declaration makes it clear that primary health care must be made "universally acceptable to individuals and families in the community through their full participation and at cost that the community and the country can afford to maintain at every stage of the development in the spirit of self-reliance and self-determination". As things are, there is a tendency on the part of the people in general in India, who demand free medical service, free supply of drugs, etc. This tendency is further accentuated by the political process wherein starting new hospitals in the rural areas becomes a fashionable election promise. In short, it is taken for granted that the way to achieve better health is to create more and more free hospitals and supply of free drugs. This is the negation of the Alma-Ata Declaration. If the health policy-making in India is to be reviewed, it would be found that health care has moved from a series of activities by different organisations of the government to cover most of the population with their active involvement. During the four decades since independence, three phases can be identified. The first phase envisaged improving the health infrastructure in terms of personnel and disease problems oriented programmes. The second phase began with an attempt to integrate the services. The third phase, began a decade back deviated at two important factors of health care organisations, namely, involvement of community and universal coverage. At the end of the four decades of health planning in our country, there is now a wide-spread infrastructure (11,530 PHCs/SHCs; 84,013 Sub-centres; 547 CHCs; 86,000 trained male MPWs; 94,000 trained female MPWs; 516,000 trained

birth attendants; and 585,000 Health Guides) touching nearly every individual and rising expectations of the people with a possibility of new philosophy of health care and health status of the population. It is presumed that the health care affects the way people live and function and is a source of direct social change than many other forces, such as education. Health problems and diseases force the individual and family in distress to review their conceptions of themselves and their relation to the environment. Further depending on the type of help or service made available, the attitudes, beliefs and practices can be changed. Unfortunately this has not been perceptible significantly. There still is a large gap between the vast infrastructure for the delivery of health care services and their utilisation by the rural community. Several studies indicate that utilisation of primary health centres and sub-centres ranges from 27 to 33 per cent, and it is believed that 70 per cent of the health care services remain under-utilised. The main reasons could be that the rural population in India either do not have health awareness or has little **concern** for their health status. The result is that there is a wide gap between the health status of people belonging to urban and rural areas and also between male and female population. Besides, little values for health status in terms of age at marriage and low fertility are attached by the community. For example, marriage and pregnancy before 18 years is common among the poor in many States. The result is high infant mortality ranging from 119 in Madhya Pradesh (M.P.) to 212 in rural Uttar Pradesh (U.P.) as against the official national average of 105. Nearly 20 to 58 per cent of girls in the rural areas not only marry but also become pregnant before the prescribed minimum marriage age of 18 years. In the rural areas of Uttar Pradesh and Madhya Pradesh where 90 per cent of the women in the reproductive age-group are married before 18 years, the studies reveal that infant mortality rate among babies born to women below 18 years is much higher than in the case of babies born to women above 18 years. It is also found that IMR is two to three times higher among women who could not complete the term of their pregnancy and delivered low weight babies due to mal-nutrition and poverty. It was also discovered that a close association between low-birth weights and low-income exists. The IMR is two times higher among the low income families earning less than 500 rupees per month. Thus, a vicious circle of poverty, high fertility and infant mortality seem to be operating in such areas or States.

More sophisticated studies reveal the absence or lack of four factors, namely, **availability, accessibility, acceptability** and **appropriateness** of health care services.

In the above prevailing situations, it seems difficult to reach the goal of HFA by 2000 AD in our country. In fact, there is a wide-spread under-achievement in health and family welfare programmes in certain States in India today, particularly at the village level. Although several factors cumulatively contribute to this phenomenon, one of the important reasons identified by research is **low motivation** among acceptors as well as among health functionaries. The motivation problem is fundamental. The key change will have to come about in basic mores which will be influenced by a complex set of factors. Improving the health status depends not so much on new technologies as upon psycho-social and cultural change to break the crust of caste system, poverty and alienation.

In which areas or for which of these Blocks could Leadership, either strengthened or transformed, make a difference?

Health does not rely on treating the sickness, but also encompasses: prevention; health promotion, rehabilitation. Those responsible for promoting health and preventing and treating diseases are expected to have a general knowledge of the eight primary health care topics. Usually, it is found that the health personnel below district level as well as community workers do not have adequate knowledge of these essential steps of health care. And as such they require appropriate technology (*i.e.* management) most suitable to the community. The management for this purpose mean **leadership, supervision, support, communication and motivation**. This should percolate from one level down to next, for health centres, health posts, and village workers. Good health care needs good "health system". Appropriate technology will mean finding a system that suits people's circumstances. It will include both "hard" technology, like equipments and supplies and "soft" technology, such as education materials and record keeping systems.

The strengthening or transforming of leadership in our country may require at two extreme levels in the main, *viz.* top {decision-makers such as bureaucrats, health administrators, etc.) and community levels. The existing top-level leadership requires a complete sensitization for **people-centered style of leadership**. Recent studies and findings reveal that among the top-level leadership more than 60 per cent administrators/managers adopt **task-oriented style** of leadership and are used to directive behaviour. As such, their leadership style requires a progressive transformation to **relationship-oriented** or **people-centered** style, characterised by delegating or supportive behaviour.

Similarly, at the community-level an ideal leadership development, as envisaged in the WHO documents, is difficult to achieve in the existing milieu of this country. Some of the hurdles or blocks are: Firstly, the concept of a community as a body of people organised into a political, municipal, or social unit or sharing common qualities is not true for the Indian population. Even while living in rural areas of small numbers, the community is not the geographical units but the **caste-groups**. Not only are the caste groups independent entities but often their goals and aspirations conflict. At present, the political and other considerations drive them to maintain their independent identity rather than merge together and seek common goals. True inter-sectoral coordination and community involvement therefore have to wait the emergence, of homogenous groups of individuals and groups. Secondly, the physical factor of the population distribution has been a block. Currently, nearly 75 per cent of the population live in population units of less than 1000, poorly linked by road, mass-media and other communications. Thus, the spread of information from policy makers to the people and **vice versa** is often on the paper only. Thirdly, the financial inputs for health sector have been meagre and thus the level of health care that can touch the lives of individuals has not occurred. When the inputs are sufficient to offer a definite level of health care on a regular basis which the community perceives it as their right, there is a definite likelihood of greater community participation and involvement and thereby to attain the goal of HFA. In my opinion, the rural communities in India have not yet started to perceiving the health care services as their 'right'. This is an important challenge for Leadership Development for HFA.

Does Health for All call for a special sort of Leadership?

The HFA will indeed call for a special sort of leadership in developing countries especially in Indian conditions. As alluded earlier, the problems of health status and care are embedded primarily with rural communities, and that too among weaker sections - women and children who are poor and illiterate populace of the society. This sizeable portion of the population has developed a sense of alienation (including **powerlessness, meaninglessness** and **social isolation - vide** Annexure I). They also have no or low motivation. There is little evidence that this sector of population has evinced significant *concern* (motivation) for their health status *vis-a-vis* other concerns of their life. In other words, their level of aspirations or health motivation is relatively low in the face of other urgent necessities of life. It is, therefore, re-emphasise that whatever techniques may hereafter become available for improving the health care programmes, which depend on "freedom of choice", the health motivation of people will remain the most important single factor affecting the individual's health status or the goal of HFA. India's highest problem is to enlarge greatly the number of such leaders (and to identify them) who should or could be prepared and strongly motivated to work in such areas which are mostly devoid of health motivation. In the existing structure of Indian communities, the WHO's proposed concept of **group** or **collective** leadership development may be difficult to operationalise.

Since, the HFA is community based health service, it is assumed that a village is a community. In sociological term, we may define a community as a group of individuals living together sharing common interests and values. In that sense, a village is not a cohesive group. It is divided on the basis of caste system as well as class system based on land holdings. Caste system in the village is highly discriminate and is based on unequal opportunities. It does not believe in democracy and universal participation. So in a village setting, every caste, may be considered as a community. In such a situation, it is very difficult to bring together even 1000 population, leave alone 100,000 population, to participate in a health service programme democratically. Often, upper caste people who are economically stronger in a village are over-represented in such programme. On the other hand, socially backward communities are either under-represented or not represented at all in the manpower for health services. As a result, the programmes planned are lopsided and they fail to reach a population who are in greater need of such health programmes. In these circumstances, mobilising people or manpower for community health services becomes meaningless. We also do not have the machinery to mobilise community manpower to implementation, we need democratic leaders to sensitize the village. Thus, it is a basic issue to be solved to make community manpower utilisation a reality. In the absence of democratic institutions, the burden lies on the technocrats and the bureaucrats to motivate the community. With the type of training they have, it is highly doubtful that they will be able to accomplish this important task. On the whole community manpower as such is not only less trained for the purpose but also they are least-motivated to take up primary health care service programme.

India, being a vast country, has no dearth of success stories of leadership in primary health care through involving the communities (e.g. Athoor experience; Jamkhed Project; Vadu Rural Health Project; W.W. Forum in Leadership Training. Madras; Pani Panchayat (Water Council) Project in Pune; Pachod Project, the Sewa Rural Experiment; Tilonia Experiment, - etc.). These are stories mostly of NGOs where the concept of a single charismatic leader as well as the leaders from outside the community and from within have demonstrated tremendous success. However, since each situation was different from the other, it has not been possible to develop a model leadership development approach for such a big country. The main hurdle for developing a symbiotic leadership is due to the existing caste and the class systems in the country.

Thus, the sort of leadership for HFA has to be *special* because it will not be based upon entropy but it has to bring about symbiosis. The special leader will be that who will be strongly motivated to work in communities having least health motivation.

ISSUE 2: WHAT CAN LEADERSHIP DO FOR HEALTH FOR ALL?

What can individuals (such as yourself) do to support/accelerate Health for All through more effective or different styles of leadership?

Our leadership style is the way we supervise or work with someone. It is how we behave when we are trying to influence the performance of others. Although our perception of how we behave is interesting but it tells us only how we *intend* to act. Unless it matches the perceptions of others it is not very helpful. The leadership would be more effective if we are willing to learn at least three skills (***flexibility, diagnosis*** and ***contracting***). For example, we have to learn to use a variety of leadership styles ***flexibility***. We have to learn how to ***diagnose*** the needs of the people whom we supervise. And we have also to learn how to come to some agreement with them, to ***contract*** with them for the leadership style they need from us. In fact, all leadership styles are a combination of *two* basic leadership behaviours which we can use when trying to influence someone else. These are ***Directive*** Behaviour and ***Supportive*** Behaviour. As a matter of fact, since there is no one best leadership style the choice of leadership styles should be determined by the situations in terms of three basic skills of the leader mentioned above. Since health system has a bigger organisational structure an effective leadership style will require different ***strokes*** for different ***folks***. However, the leadership development programme for a big country like ours must envisage differential leadership styles which should commensurate with varying Development Level of an organisation, community or the people. The development level should be determined by varying combinations of ***competence*** and ***commitment*** along a continuum. The developing level will require a ***Directive style*** of leadership whereas a ***developed level*** will require a ***Supportive Style*** (*vide* Annexure 2).

In fact, if the leaders at higher level is of our national health system structure, must really *support* these at lower levels, in the sense that supervision is guidance and assistance. These should be "inspiring" leaders. The anatomy of this inspirational quality will mean that the leader makes the follower eager to do his job,

and to do it well. The preparation of personnel for these leadership roles at higher levels should be correspondingly more thorough.

Which groups in your country have special opportunities and/or experience in acting as prime movers to create change and mobilize others? At what level is leadership development needed most?

By far the most important group is the Non-Government Organizations whose stories of success have been referred earlier. They are the action group and most often assume the role of 'facilitators' and 'prime-movers'. NGOs have generated a number of innovative ideas, some of which have been tested and tried successfully. A few of them have also been incorporated in the national policies or strategy to achieve HFA.

Leadership development is needed most at the intermediate level (e.g. bureaucrats and technocrats at national, provincial and district levels) where their leadership responsibilities include providing managerial direction for the implementation of strategy, monitoring and evaluating, motivating others, mobilizing support of influential and pressure groups, resolving implementation issues and participating in policy-making including allocation of resources. At this level, traditions, particularly in the field of health, seem to be deep-rooted. Initiating changes in the system is, therefore, one of the most difficult and challenging tasks of leadership, particularly at the top and middle level. The tendency to stick to the old ways is very strong. As such, what we need is evolution and not revolution. It is here that we require "transformative leadership".

It is equally important to orient the practitioners of modern medicines on their leadership role in support of national efforts to improve the health situation in this country. Once they are converted they become committed and motivated in orienting their own health staff in the provision of essential health care and for improvement in the quality of life for all sections of the population.

ISSUE 3: HOW CAN THIS LEADERSHIP BE DEVELOPED OR ENHANCED?

How have you been able to identify people with the potential to become prime-movers and carry on the leadership? How does your organisation/group cultivate and foster this potential?

Not much has been done so far in identifying the leadership potential on the part of Government except that a small attempt is being made by the NIHFWS to identify the leadership styles of the members of Indian Administrative Service through standardised tests and to gauge their potentials for developmental programmes.

The NIHFWS has also taken initiatives, in collaboration with Government of India, in organising the first Inter-Regional Dialogue on HFA Leadership Resource and Support Network Development held at New Delhi from 28th July to 8th August, 1986, where the key issue was not how to become a leader, but how to take the responsibility and create conditions for change and to lead by pulling others together by encouraging them to use their own initiative.

The NIHFWS further organised the first National Conference of Health

Professionals. Teachers and Communicators in HFA Leadership from 23rd to 25th November, 1987 which was followed by a workshop on Leadership Development for HFA held at Seva Rural Kewadia, District Baruch, from 14th to 18th December, 1987.

For determining the identifying leadership styles and for cultivating and fostering this potential, the role of research institutions in health area, such as NIHF, here becomes very important. In a spirit of true leadership, leadership of the research institutions can support the policy level in testing the feasibility of the new ideas. Their creativity, knowledge and experience with testing new approaches can be extremely important resources. WHO can provide useful leadership in supporting policy makers and research institutions at this stage, because they can afford to take greater risks and may have greater flexibility in the use of their resources for innovative ideas. This dimension of leadership function has not been fully explored in support of Health for All.

What have been the most effective approaches to initiate or stimulate Leadership Development? What situations are the most effective for the development of leadership capabilities, and how are these best supported?

In my opinion, leadership development should be preceded by motivational development. It is said that motivation is a 'force' that impels us to action for attaining the 'Goal'. As such it is not different from the leadership which is also a 'force' that impels a group to achieve a 'common goal'. The process is the same. While the motive or motivation works in the individual, the leadership works in a group, community or the society. The motivation emits individual force, the leadership derives a collective force. Several studies give an account of achieving change via motivation development. As such, the motivation development must be viewed as an integral and most important part of leadership development.

Dr. Mahler has conceived of 'moral leadership' to produce social change that is relevant to the *needs, aspirations* and *values* of the society. As I referred earlier, in India, the health needs, aspirations or concern for health and values for HFA are in dormant form in a majority of communities, particularly in BIMARU (backward) States. Their concerns, their perceived needs and their value systems are confined to more predominant and basic necessities of life than for the health as a meagre investment in man. As such, HFA leadership development may not be relevant or effective for such a social change during the current and the next decades. In order this to be relevant, concern for health will have to be created in the communities, health needs will have to be mobilised and values for health maintenance will have to be inculcated or upgraded from dormant to dominant level before the required effective leadership brings about a social change in this area. In other words, a "Health Motivation" will have to be developed or generated and in which we will have first to mobilise and enlighten the individuals, families and communities to ensure their full involvement by sensitising them through effective communication.

Certain minimum conditions for effective leadership development, in a country like ours, will be: (a) People or community must feel that they too have some "POWER" (or power Motive) (enabling or empowering them) to exercise their rights;

(b) People or community must have some aspirations or concerns for health (Health Motivation); and (c) People or-community **must not feel** alienated (*i.e.* they should reduce the sense of meaninglessness, powerlessness and social isolation in the community/society).

Behavioural scientists in India have identified certain group of motives which are typical and useful for **developing** countries (Kapoor, Mehta, Pareek, etc.) for bringing about development or social change (*vide* Annexure III). Some of the small experiments, done by social scientists at the NIHFV and elsewhere, have indicated the potential values of certain motives, such as Extension, Achievement Power and Dependence motives, in effecting change or development. Considered in their perspective, the leadership can be enhanced by tapping or mobilising **Extension** Motive (a concern to extend a part of oneself on to other's well-being or to help others) in the main, followed by **Achievement** Motive and reducing the **Dependence** Motive (See Annexure III for details). In certain other areas, a different combination of Power Motive, Extension Motive and Dependence Motive has worked more effectively. The essence of these small studies indicates that leadership will not be effective unless the Extension motive as well as a sense of empathy is present or enhanced. A simple formula or guidelines or equations for such a leadership development can be derived as follows:

$$(a) \quad LD \quad (Am \times Em) - DM$$

alternatively,

$$(b) \quad LD \quad (Pm \times Em) - DM$$

Where:

LD	Leadership Development
AM	Achievement Motive
EM	Extension Motive
DM	Dependence Motive
PM	Power Motive

(All these motives are quantitatively measurable with very simple devices and take not more than ten minutes time for a rural respondent.)

In all these combinations, the DM (Dependence) has to be **reduced** in the community, which has a negative sign. Since motivation is not an innate or genetic endowment, it can be acquired through training and intervention. In my opinion, such effective approaches to initiate or stimulate leadership development need to be encouraged at Research Institutions.

ANNEXURE I

Alienation: It has been operationally defined as the state or the cognitive feeling in which a social group, whether socially advantaged or disadvantaged, privileged or underprivileged, fails to perceive the interdependence (mutual control) between themselves and its social relationships or other objectifications with other groups of the social order. Alienation has the following major components:

- (a) ***Powerlessness:*** It has been operationally defined as the cognitive feeling in which a social group fails to perceive its sense of efficacy or control over social, economic and public affairs that are crucial to its very existence.
- (b) ***Meaninglessness:*** It has been operationally defined as a cognitive feeling in which a social group perceives that the values and norms that pervade in its social and cultural life no longer hold good or are valid for its group life. This cognitive feeling manifests in a state of social disillusionment that it is difficult to live in a world of conflicting, norms and values.
- (c) ***Social Isolation:*** It has been operationally defined as a cognitive feeling of aloofness or loneliness of a social group from other groups placed higher or lower in the social hierarchy and the feeling that the social group is living in vacuum and has no social roots.

ANNEXURE II

THE FOUR DEVELOPMENT LEVELS ARE

High Competence *	High Competence *	Some Competence *	Low Competence*
High Commitment	Variable Commitment	Low Commitment	High Commitment
D4	D3	D2	D1

Developed _____ Developing

***Competence** is a function of knowledge and skills which can be gained from education, training and/or experience.

****Commitment** is a combination of confidence and motivation. Confidence is a measure of a person's self assuredness - a feeling of being able to do a task without much supervision, whereas motivation is a person's interest in and enthusiasm for doing a job well.

Thus.	D1may require	S1Directing Style of leadership)
	D2may require	S2(Coaching Style of leadership)
	D3may require	S3(Supporting Style of leadership)
	D4may require	S4Delegating Style of leadership)

ANNEXURE III

DESCRIPTIONS OF ACTIVITIES UNDER EACH MOTIVE

1. **Achievement Motive:** To do one's best, to be successful, to accomplish tasks requiring skill and effort to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles, ***to be able to do things better than others.***
2. **Affiliation Motive:** To be loyal to friends, to participate in friendly groups, to do things for friends, to form new friendships, to make as many friends as possible, to share things with friends, ***to do things with friends rather than alone,*** to form strong attachments.
3. **Extension Motive:** To extend a part of one's self on to others, *to do good* for others, to have/express concern for other's welfare/well being, *to extend help to others,* to assist others less fortunate, to treat others with kindness and sympathy, to be generous with others, to do small favours for others, to guide others who are hurt, sick or needing help.
4. **Power Motive:** ***To have control over what other people are doing,*** to be able to influence what people do, to be in control of the situation, to express a strong desire for competition, to show a high need for status, to engage in activities that lead to stress and conflict.
5. **Interception Motive.** To analyse one's motives and feelings, to observe others. ***to understand how others feel about problems,*** to put one's self in another's place, to judge people by why they do things rather than by what they do, to analyse the behaviour of others, to analyse the motive of others, to predict how others will act.
6. **Dependence Motive:** ***To seek approval from others,*** to have others to provide help when in trouble to shift one's own responsibility on the others, to avoid taking the decision independently, to hesitate taking actions on decisions, to act as a follower rather than a leader to avoid supervisory and directing the actions of others, to escape in taking initiative,

प्रस्तुत लेख में नेतृत्व को परिभाषित करने के पश्चात लेखक द्वारा अध्ययनों से प्राप्त सामान्य निष्कर्षों की ओर ध्यान दिलाया गया है तथा लेखक ने स्वास्थ्य परिचर्या सेवाओं की उपलब्धता, पहुँच और उपयुक्तता संबंधी कमियों आदि की ओर भी संकेत किया है। प्रस्तुत अध्ययनों में उठाए गये कुछेक मुद्दे इस प्रकार हैं: 1—क्या सभी के लिए स्वास्थ्य हेतु नेतृत्व कोई विशेष प्रकार का नेतृत्व है तथा यह नेतृत्व सभी के लिए स्वास्थ्य लक्ष्य को पूरा करने की दिशा में क्या योगदान कर सकता है, 2— ऐसे कौन-कौन से क्षेत्र हैं अथवा इनके उपक्षेत्र जिनमें नेतृत्व को सुदृढ़ किया जा सकता है अथवा सकारात्मक परिवर्तन लाया जा सकता है जिससे स्थिति में कुछ अन्तर आ सके, 3— देश में ऐसे कौन-कौन से वर्ग हैं जिन्हें स्वास्थ्य स्थिति में परिवर्तन लाने के लिए विशेष अवसर प्राप्त हैं और जो इस कार्य में प्रमुख भूमिका प्रदान कर सकते हैं, 4— लोगों तथा समुदाय में किसी भी प्रकार को प्राप्त करने की दिशा में किए जा रहे सभी प्रयास कमजोर पड़ जाएँगे, 5— इस लेख में नेतृत्व विकास की प्रक्रिया को प्रोत्साहित करने की दिशा में कई एक प्रेरक समूहों जैसे उपलब्धि प्रेरक, प्रसार प्रेरक, निर्भरता प्रेरक, अधिकार प्रेरक तथा संयुक्त रूप में इन सभी प्रेरक समूहों के बारे में चर्चा भी की गई है।

ANIMATING BUREAUCRACY FOR HFA LEADERSHIP DEVELOPMENT

S.D. Kapoor*

ABSTRACT

The paper in this innovative area pleads that 'creative use of darkness may be as much needed as the judicious use of light'. The paper broadly covers: (i) What is HFA leadership: meaning and scope; (ii) Appropriate policy formulation and reformulation and their examples in the programme efforts; (iii) Goal orientation in public systems; (iv) The expenditure syndrome and the superiority wisdom syndrome, compliance syndrome; (v) Caste and people oriented development; (vi) Commitment of top leadership; (vii) Transformation of institutional culture; (viii) Mass mobilisation and organisation (paper gives examples of NIHFWS, ICMR, All MS and NCERT - organisation on traditional lines); and (ix) Restructuring administration.

HFA LEADERSHIP: MEANING AND PURPOSE

It can hardly be disputed that in achieving the goal of health for all political commitment to social equity will remain a fundamental pre-requisite. Enlightened leadership will also be required to ensure that national policy decisions are aimed at reducing socio-economic disparities among people more rapidly. A clear understanding of the critical issues effecting the implementation of the national health for all strategies will be imperative as will the initiatives taken to resolve these issues adequately. It is felt that those in leadership positions in health and health-related sectors will need to play a crucial role in meeting these challenges.

Recognising the need to narrow the gap between the policy and actions, the WHO has launched a new initiative, called as "Health for All Leadership Development". The principal aim of this initiative is to create (or mobilize) a critical mass of people in each country who are in a position to motivate others and guide their national health development process towards the goal of Health for All. **Leadership in HFA thus refers to this ability to motivate others and to take initiatives.**

The campaign to achieve HFA is at a stage where a new, more purposeful effort will be required to move further ahead towards the success of that campaign. The issue which is now of greatest importance is the leadership which will be required to drive and direct that new effort. This requires a critical mass of leaders **who are knowledgeable-, committed and prepared to lead that movement.** The challenges which we now face to achieve this movement is, considering the

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principles of HFA, to identify, promote, and prepare those leaders. The experience which this country has had, during the last forty years, suggests that the process to develop this leadership is not an easy one. Although WHO in its various Dialogues, Conferences and Colloquia has suggested to identify, promote and prepare such leadership from every level of all sectors, formal as well as informal leaders, etc.. an attempt will be made in this paper to examine the feasibility of changing or developing the top leaders such as decision-and policy makers, administrators, mainly bureaucrats for HFA goal, who occupy special position in this country in influencing the policy decisions, planning, as well as in controlling the developmental programmes. Can we fairly assume that they are knowledgeable, committed, have ability to motivate others, and will take initiative to lead such a movement for HFA which is an investment in human development? According to WHO'S recommendations. "Knowledge alone is not the basis for development but needs 'emotional energy, and "commitment is largely controlled by professionals and specialists", furthermore, "Leaders have first to be committed to egalitarianism both in words and deeds". In order to obviate any bias, let me digress for a while to first recount the fundamental principles to promote the welfare and well-being of the people after the independence.

INDIAN CONSTITUTION AND THE WELFARE OF PEOPLE

In laying down the fundamental principles for the governance of the country, the Indian Constitution has enjoined the State to promote the welfare of people and to inform all the institutions of the national life accordingly. The State is required, in particular, among other things, to direct its policy towards securing for people; adequate means of livelihood, opportunities for healthy development, free and compulsory education until children complete the age of fourteen years; just and humane conditions of work; decent standard of life; and improvement of nutrition and public health, Our various public systems and institutions have been engaged in translating such policies into action in order to discharge their duties to the people. And yet, even after 40 years of independence, the extent to which people's hopes and aspirations have been met is fairly known to all of us. Let us, however, take a brief look at the performance of health and family welfare systems and then discuss a new things with a view to see how public systems can be further animated or energised for national development or for leadership development of HFA.

HEALTH AND FAMILY WELFARE PROGRAMMES PERFORMANCE

The quality of life, however, is bound to be affected when majority of people are illiterate and a large number of them are without productive work. The infant mortality rate (I MR) and life expectancy at age one are the most important indicators of quality of life. Our inadequate performance in this respect is reflected in high infant mortality rate(IMR) and high death rate./e. 96 per 1000 (1986) and 11.1 per 1000 (1986) population, respectively, against the targeted national goals of 60 and 9, respectively, by 2000 A.D. Similarly, the birth rate of 32.6 per 1000 (1986) and life expectancy at 51.6 years (in 1981) were far from the targeted goals respectively of 21 per 1000 and 64 years by 2000 A.D. It is instructive to compare our targets with

those suggested by Club of Rome as an ambitious basic human needs with literacy rate at 77 per cent. IMR of 50 per 1000, and life expectancy at age one of 67.4 years by 2000 A.D. Literacy, particularly female literacy plays a crucial role in this respect as is clear from our own experience. For example, Kerala enjoys 70.42 per cent literacy with female literacy at 65 per cent against the national average of 36.23 per cent and 24.82 per cent, respectively. During 1971 -81 period, its population grew at the rate of 19.24 per cent against the national average of 25 per cent. Its IMR was only 42 per 1000 (against the national average of 127 per 1000). On the other hand, Uttar Pradesh with female literacy rate at 14.04 percent and as low as 9.49 per cent in rural areas, showed birth rate of 40.4 per 1000 and IMR at 177 per 1000.

Similarly, the goal of the Internal Drinking Water and Sanitation Decade is to provide safe water and sanitation to all by 1990. This is also pivotal in our goal of HFA by 2000 A.D. However reviews show that despite the Water Decade and our declared goal, fewer people have access to clean and adequate drinking water than ever before.

I have drawn attention to above performance not to down-grade our efforts and achievements and the commendable work done by large number of our dedicated and competent public functionaries. In fact, we have done very well in several areas including the impact of small family size norm. However, administrative and management cadres also have to be sensitive to the social objectives which the Seventh Plan sub-serves. A self-critical look needs to be taken in order to enhance our capability and concern for doing better. As we know, these programmes are interrelated and achievement in one field may have spread-effect in other systems. For instance, better educational performance would help improve the performance in health and family welfare programmes. Policy formulation and development goals provide linkages between and among these various sectors. Bureaucracy is common in all these public systems and provide another source of linkages. Our socio-economic development is therefore intimately linked with the functioning of our public systems and public management. Let me now turn my attention to the main theme on animating top leaders for HFA leadership development in the national health systems.

APPROPRIATE POLICY FORMULATION AND/ OR REFORMULATION

As we are aware, the guiding principles of Seventh Plan continue to be growth, equity, social justice, self-reliance, improved efficiency and productivity. The basic priorities are to be food, work and productivity. The poverty alleviation programmes continue to aim at reducing the percentage of people below poverty line to less than 10 by 1994-95. Continued emphasis on provisions of rural roads through Minimum Needs Programme (MNP) and maintenance of road and bridges has received a high priority. Top priority has been given to universal elementary education for all by 1990 and to cover all adult illiterates in the age group 15-35 years by that period. We are also committed to attain Health for All by 2000 A.D.'All (100 percent) rural areas would be provided with adequate and safe drinking water, and 100 per cent of the urban population would be covered by piped drinking water supply during the

Seventh Plan period. These are goals of tremendous magnitude and of far reaching social and political significance. Appropriate policy formulation and/or reformulations is therefore essential for progress toward achievement of such goals. Such policies include, promotion of adequate productive employment and work; promotion of opportunities and conditions for developing the productive force of our people; inculcation of their internal capability including technical and social skills; transfer to and enhancement of productive assets of the poor; employment generation and creation of jobs; empowerment of people and negation of their negative self-concept and promotion of their organisation for participation and involvement in development. Each one of these, at the same time, forms a strategic activity goal for achievement of overall national development.

Examples from Health and Population: Sound policy is essential for efficient functioning of public systems and for energizing them for development. It can be illustrated by two examples, one from health (community participation) and another from family welfare (target-orientation). It is important to note that the *Alma-Ata Declaration* makes it clear that primary health care must be made "universally accessible to individuals and families in the community through their full participation and at cost that the community and the country can afford to maintain at every stage of the development in the spirit of self-reliance and self-determination". As things are, there is a tendency on the part of the people in general, to demand free medical service, free supply of drugs, etc. This tendency is further accentuated by the political process wherein starting new hospitals in rural areas becomes a fashionable election promise. In short it is taken for granted that the way to achieve better health is to create more and more free hospitals and supply free rugs. This is the negation of the *Alma Ata Declaration*. Another disturbing trend has been greater focus on the "targets" of family welfare which has been shifting the focus of health to population control. If the current trend to view the work performance in family welfare as the major (if not the only) criterion for effectiveness of a health functionary continues, there is likely to be backlash from the community. It is possible that in the name of family welfare we are again depriving the community an opportunity to be an active agent in health policy.

GOAL ORIENTATION IN PUBLIC SYSTEMS

Development programmes are instruments of public policy. Traditionally, the governments have been mostly concerned with tax collection, maintenance of law and order and similar other policing tasks. However, development tasks required the creation of new instruments to be able to pursue, process, manage and implement them properly in order to meet specific needs of specific segments of population. With the expansion of development departments, public services also proliferated, with the result that we have now a gigantic bureaucratic machine. Any programme of improvement in public systems will have to deal with this system of administration. Sound policy is very important for developing goal-mindedness and action-orientation in the system. However, such changes will not come automatically in our bureaucracy as there are certain inbuilt barriers in its structure and value orientation which are not compatible with the goal of HFA and values implied therein. I therefore

mention some of the weaknesses of our powerful bureaucracy and to some dimensions of what I consider to be its faulty structure and orientations.

THE BUREAUCRACY: STRUCTURE AND ORIENTATIONS

The Expenditure Syndrome: Public systems and institutions have the responsibility of helping people, release, develop and actualize their creative potential through education, health and other economic and social development programmes. Such goals require *qualitative changes* rather than only quantitative targets. However "over the years, our bureaucracy has learnt to think mostly in terms of financial and physical targets. The traditional system of audit, has made a significant contribution in enforcing such administrative behaviour and value orientation. The sanctioned funds must certainly be utilised for a given development goal and we need more and more funds. What has happened over the years, however, is the reinforcement of the tendency of equating expenditure with results and performance. Expenditure, thus, becomes end in itself. The real goal of providing good education, good health services, good welfare programmes, good water supply and of helping the people to develop their productive abilities and internal capability including self-confidence and initiative tend to be ignored.

The Superiority-Wisdom Syndrome: Over-emphasis on financial targets and on expenditure also tends to strengthen feudal mentality and 'superiority syndrome' among the officials and 'dependency syndrome' and negative self-image among the people - the recipients of relief, credit and subsidy, and free medical service, free supply of drugs, etc. The officials come mostly from higher castes and are more educated. The masses of people come largely from lower castes and are uneducated - a large majority of them totally illiterate. However, they have their innate down-to-earth intelligence, their own capacities and sound common sense. It is not uncommon to find that they know much more about local conditions, land and the environment than public officials. The latter, however, controls funds, have power to identify a beneficiary and get him to receive cattle or some other asset. They have therefore tremendous power over the people. They abrogate wisdom to themselves, and see no point in even talking to people. The poor are happy, even if they get a small subsidy. However, in the process they become more dependent on the government machinery, their internal capability is retarded, and the distance between them and the officials further widens.

Compliance - No Accountability Syndrome: In a rigidly hierarchical system of public administration, the lower level personnel are motivated not by a sense of achievement, but by their perception as to what their superiors, the controlling officers, desire them to do. Such perceptions are formed by a plethora of circulars, reporting forms, guidelines as well as by the day to day behaviour of the superior officers themselves. In such a situation, ***compliance becomes more important than performance***. In a gradually planned programme like IRDP, block level officials are tempted to opt for milch cattle in utter disregard of the local conditions and need of the people. Any third or fourth rate animal is dumped on the so called beneficiaries. In such hierarchical situations, accountability is defused, performance

is shown in terms of financial and physical targets and compliance behaviour is rewarded in more than one ways. Such a system is efficient in its own way - that is in distorting the very focus of development.

The Caste Orientation: In our caste-ridden social structure, bureaucratic administrative structures derive ready nourishment from the social system itself and form a mutually reinforcing mechanism. A quarter of century ago Jawaharlal Nehru observed, "whatever we may say, we are caste ridden, not caste ridden in terms of castes only, but in terms of other things. The British introduced in services, this caste feeling - the superior services, the inferior services, the ICS and all that. It is going of course, nevertheless this tendency of official caste.... is there". Nehru enjoined the Services "to cease to think of themselves as some select coterie apart from the people of India". A man may have a capacity, training and experience to do a job and to shoulder greater responsibility "but it does not mean that as a human being he is a superior to another human being". Many years have passed away. We have also implemented several five year plans. However, we have not been able to liberate our administration from caste like attitudes and feelings and the structure itself is threatened by such "caste" divisions. From time to time, one hears about strong tussles between and among the various services and the Indian Administrative Service considers itself as the superior caste. Over the years, the IAS has come to be used as reference group for fixing pay scales, service conditions and other amenities, not only for other services but also for academics, researchers and scientists.

PEOPLE-ORIENTED DEVELOPMENT

It is now being increasingly realised that all development in the final analysis is the development of people, their abilities, capabilities, and personality. The approach to the Seventh Plan says, that "One of the primary tasks of the Seventh Plan must be the harnessing of the country's abundant human resources and improving their capabilities for development with equity". It further says, "the strategies and programmes for education, communication, training and organisation should be such as to release the latent power of women and youth as also economically weaker population groups so that they can make an increasing contribution to the socio-economic development of the country". People orientation in development requires similar orientation in management of our public system and in general administration. It is obvious that much structures and orientations would not come easily. It is a long way to go. Efforts are required in a planned way and on many fronts. As such. I now venture to suggest the following in this regard:

1. **Commitment of Top Leadership.** The top political and bureaucratic leadership, both at the Centre and in States have a crucial role to play in emergizing our institutions and systems in people-oriented direction. First and for most, they need a firm commitment to such development goals and readiness to formulate and/or reformulate policies accordingly. Planned development is also a social learning process and we should take feedback and learn from our past experience in order to improve policies and strategies.

Such commitment and readiness can help develop similar orientations in the wider systems, by infusing a sense of urgency and seriousness.

2. Transformation of Institutional Culture: The top leadership has the important role of moving administration from the present bureaucratic machinery based on budget imperative, compliance and superiority value syndrome, to strategic organisations for fulfilling their public tasks. It involves total transformation of the institutional culture and enhancement and maintenance of the institutional capacity for appropriate and timely action. It requires an action plan for evolving organisations for democratic, participatory, competent and decentralised functioning for releasing peoples creativity for development as envisaged by the Seventh Plan and to "help people to help themselves" as the Sixth Plan wanted to achieve. Besides political commitment, the top leadership needs competence, security and readiness to share power - the Centre with States, States with districts and down below and above all with the people and to give freedom, support and encouragement to development organisations. Such preparedness on their part (*i.e.* the top leadership), is an essential pre-condition for radical restructuring of our health systems and for the inculcation of a new culture.

3. Mass Mobilisation and Organisations: As mentioned earlier, the entrenched socio-economic and bureaucratic vested interests manage to institutionalise even new autonomous organisations along traditional lines (e.g., NIHF, ICMR, AIIMS, NCERT, etc.). The task of transforming the institutional and administrative culture therefor cannot be carried out by the very same bureaucratic machinery. To obviate this, large majority of our people - the urban and rural poor and other disadvantaged groups like women, who are adversely affected by malfunctioning of our public systems - and the people at large, need to be organised and mobilised for this purpose. The Government should come forward to seek support of social action groups, interested voluntary agencies, research institutions and socially committed individuals to help educate and organise the rural poor and other similar weaker sections. Organised pressures and assertion from the grass root level would create strong demand for education, health and welfare services, and for sensitise administration, which in turn could motivate the public systems for better performance.

4. Restructuring Administration: It is difficult to bring about changes in value orientations of the personnel without certain basic changes in the structure of administrative system. I would like once again to quote Jawaharlal Nehru on the type of administration required for building a new society in India. These ideas appear probably more relevant today than ever before. Addressing a meeting in 1956, he said, "now every machine that you make is meant to turn out something you want. If you want socialism then administrative machinery that we have must gradually turn out socialism. If it turns out something else, then it does not fit in with the objective we have and there is a constant conflict between the two. I am not referring to the

individual. I am referring to the pattern of organization, right from the recruitment etc. promotion and all that". Thirty two years have passed away since these words were spoken. If anything the machinery has become more rigid, gigantic and hierarchically bureaucratized. The conflicts between such a machinery and our developmental goals are quite apparent today. Pandit Nehru indicated some lines along which it should be reorganized, i.e. in the personnel policies of recruitment and promotion. He also emphasized the need for employee participation in administrative decision making and commitment to certain goals in civil servants. "In period of dynamic growth"... he said "we want people with minds, people with vision, people with desire to achieve, who is completely neutral is a head clerk, (without any disrespect) and no more. He would do his work efficiently as a head clerk no doubt, but nothing more. Can a person be neutral I ask you about basic things we stand for our state stands for our plan stands for....".

Such are the qualities required in our personnel in public systems – vision, initiative, creative, desire to achieve and commitment to national goals and to the good of the people. For such changes the political leadership has also to develop the people. Obviously, this cannot be done unless there is a change in the overall culture of the political leadership in the country. Public office must be used for the public good and this cannot be included through leadership development programme alone unless it is accompanied with the process of democratisation of the people. It will require a higher level of political consciousness and social responsibility on the part of political leadership and much greater degree of public vigilance.

Since we are now commemorating 40 years of India's independence and Jawaharlal Nehru centenary, it is most opportune moment to animate and energise our powerful bureaucracy- be it generalist or medical bureaucracy- to prepare itself for a social transformation via leadership development for HFA. After grouping for over four decades, let us not forget that "creative use of darkness may be as much needed as the judicious use of light."

सभी के लिए स्वास्थ्य हेतु नेतृत्व विकास संबंधी इस नवोन्मेषी कार्यक्षेत्र के संदर्भ में इस लेख में यह तर्क प्रस्तुत किया गया है कि " अन्धकार का सर्जनात्मक प्रयोग उतना ही आवश्यक है, जितना कि प्रकाश का उपयोग करना न्यायोचित है "। इस लेख में निम्नलिखित विषयों पर प्रमुख रूप से चर्चा की गई है: 1— सभी के लिए स्वास्थ्य हेतु नेतृत्व क्या है: अर्थ तथा प्रसार क्षेत्र, 2— उपयुक्त नीतियों की रचना तथा पुनर्रचना और कार्यक्रमों प्रयासों में उनके उदाहरण, 3— लोक प्रणालियों में लक्ष्य-प्रवणता, 4— व्यय संलक्षण बौद्धिक श्रेष्ठता संलक्षण, अनुगानिता संलक्षण, 5 जातीय तथा लोकोन्मुखी विकास, 6—शीर्षस्थ नेतृत्व की प्रतिबद्धता, 7— संस्थागत संस्कृति में परिवर्तन, 8— सामूहिक संचालन तथा संगठन (प्रस्तुत लेख में राष्ट्रीय स्वास्थ्य एवं परिवार कल्याण संस्थान, भारतीय आयुर्विज्ञान अनुसंधान परिषद, अखिल भारतीय आयुर्विज्ञान संस्थान तथा राष्ट्रीय शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद के उदाहरण दिए गए हैं) पारम्परिक सिद्धान्तों के अनुसार संगठन तथा प्रशासन का पुनर्गठन।

INVOLVING COMMUNITY IN HEALTH POLICY MAKING, PLANNING AND IMPLEMENTING IN INDIA: A DREAM OR REALITY?

S.D. Kapoor*

ABSTRACT

In this paper, the goal of National Health Policy H.F.A. (Health For All by 2000 A.D.) through the instrument of PHC (Primary Health Care) has been discussed. Since, involvement of community is a vital activity for successful implementation of primary health care approach, it seemed necessary to examine its role in health policy making and planning in India during the last 40 years.

First phase (1952-1972), second phase (1972-77) and the third phase of health planning (1977) have been examined and discussed along with the current scenario. Some of the hurdles at Blocks have also been enumerated and some suggestions to overcome these have been put forth.

It has been repeatedly recognised in various policy statements and plan documents that the key to successful organisation of primary health care (PHC) is community participation'. Although this principle is almost universally acknowledged, it is interpreted in widely different ways. Most commonly, it is misinterpreted to mean simply the **mobilisation** of the people's resources of money, labour, and materials for government-planned and controlled programmes. Such contributions from the people are usually desirable, but they are only one aspect of participation. A more sensitive approach is to view community participation as a process through the people gain 'control' over the social, political, economic, and environmental factors determining their health. By acquiring appropriate knowledge, skills, organisational capacities and a heightened sense of individual and collective responsibility, low-income communities can achieve remarkable improvements in health status.

As a matter of fact, the community must participate, not just in implementation, but in every stage of the health programme, such as: initial assessment of the situation, defining the main health problems, setting the priorities for the programme, implementing the activities, and monitoring and evaluating the results. However, a major factor influencing the scope for community participation in health is the attitude of the organisation 'sponsoring' the programme. The purpose of this paper is to evince that even after four decades of our independence, the official machinery still holds a conservative orientation and as such is unlikely to foster genuine involvement of the people in decision-making about health or any other activity.

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Since the policy* is viewed as a system made up of two sets of inter-related elements - objectives and instruments - both of which are necessary for a policy to exist. The broad goal of the national health policy is HFA (Health for All by 2000 A.D.) through the instrument of PHC (Primary Health Care). Since the involvement of community is a vital activity for successful implementation of primary health care approach, it seems necessary to examine its role in health policy making and planning in India during the last 40 years in a developmental perspective.

Development of Health Care. Prior to 1947, organised health services were provided to selected populations with greater availability of facilities and services in urban areas and for the elite. Basic facilities, such as immunisation, nutrition-education, treatment for infectious diseases and maternal and child health services were not available to majority of the population. This state of affairs and neglect of health needs is reflected in the high infant mortality rate (IMR), death rate and other indicators. This situation was characterised by lack of universal coverage and long-term planning.

It was, however, salient to note that the National Planning Committee in 1938 under the Chairmanship of Pandit Jawaharlal Nehru appointed a sub-committee on national health under the chairmanship of Col. S.S. Sokhey. The interim report of this committee was presented in 1940 and the final report in 1948. One of the recommendations of this committee highlights the understanding of the committee for community involvement. They resolved that "...as a minimum step in order to meet the special conditions prevailing in India, we recommend the training of large number of health workers. These health workers should be given elementary training in practical community and personal hygiene, first-aid and simple medical treatment, stress being laid on the social aspects and implications of medical and public health. There should be one health worker for every 1000 of population and this probably should be attained within five years. Selected health workers should be given further training at suitable intervals so that they might be better trained for this service".

"There should be ultimately one qualified medical man or woman for every 1000 population and one bed for every 600 population. Within the next 10 years the objectives aimed at should be one medical man or woman for every 3000 population and one bed for 1500 population."

However, it was only in 1977 that such a step to develop active methods of community involvement took concrete shape.

As a matter of fact, the health care has moved from a series of activities by different organisations of the Government to cover most of the population with their active involvement. During the last 40 years, since independence, three phases can be identified. The first phase was on improving the health infrastructure in terms of personnel and disease problem-oriented programme. The second phase began with an attempt to integrate these services. The third phase which began a decade

* A policy can also be viewed as proposed action to be taken in order to cause people to behave in a peculiar way.

back, deviates at two important aspects of health care organisation, namely, involvement of community and universal coverage. At the end of four decades of health planning in India, there is a wide-spread infrastructure, touching nearly every individual and rising expectations of the people and, if optimally utilised, there is a possibility (or a bleak one) for a new philosophy of health care and health status of our population.

FIRST PHASE OF HEALTH PLANNING (1952-1972)

The first phase of health planning in independent India was the implementation of some of the recommendations of the Bhole Committee report of 1946. From 1947 to 1972 there was a rapid expansion of the health infrastructure under the broad policy of primary health care system. The Community Development Blocks (CDB) of 1952 were considered as the peripheral unit of the health care system. To facilitate coverage of the widely dispersed population units under a single primary health centre (PHC), para-medical personnel were included in the health system. Initially, they started functioning as functionaries of the different vertical programmes aimed at one disease condition like TB or area of services like family welfare. Thus, during this period, programmes for Malaria, TB, Leprosy, Immunisation, Smallpox, Maternal and Child Health Care and Nutrition were initiated.

Two aspects of this phase of health policy are important for consideration. Firstly, the focus was not on providing comprehensive and integrated services, and secondly there was no involvement of the community in the planning. Though various review committees emphasised the role of **health education**, the dynamic role of community as **active participants** in decision making was not given any importance. In a true sense, it was a delivery of services. Thus, what resulted in the first 20 years of first phase of work was the development of wide medical infrastructure with specific achievement like malaria control, but not a significant change in the health status of the population. Another important development of this phase was the growing awareness of family welfare services. In 1966 a separate Department of Family Planning was created in the Ministry of Health. The shift of health policy from disease to family planning has had very important implications for the health policy making in India. Family planning success meant the need for involving and intervening at the family as a unit and not the community as a unit as in earlier programmes. This shift in focus resulted in major changes leading to second and third phases of health policy making and implementation.

SECOND PHASE OF HEALTH PLANNING (1972-77)

Notable developments in this period are three fold: (i) Multipurpose Workers' Scheme (MPW); (ii) The Minimum Needs Programme (MNP) of 1974; and (iii) The appointment of the Group on Medical Education and Support Manpower (Srivastava Committee - 1974).

The MPW scheme was initiated in 1972 following field studies of the working pattern of the para-medical personnel. It was noted that the community did not identify any one worker as provider of health care and change agents. As a result of

these observations and a greater need to reach out all the families, the population coverage of an individual worker was reduced to allow for greater intensity and frequency of contact as well as to bring all the health care activities under one programme.

The second development was the Minimum Needs Programme which aimed at providing minimum public health facilities integrated with family planning and nutrition for the vulnerable groups, namely, children and pregnant women, and actuating mothers. It was also aimed to enhance the accessibility of health services, correct regional imbalances, improve the education and training of the health personnel.

The Srivastava Committee (1974) was the result of deep dissatisfaction with the status of medical education and medical care services in the country. This awareness was reflected in the Government order relating to the committee. The Srivastava Committee however made recommendations beyond the aspects relating to medical education. It shifted the focus on the need for 'community involvement. A practical recommendation was to develop a cadre of personnel with greater awareness of the community and the community acceptance. ***The Committee specifically voiced the view that health care is not something to be delivered, but acquired by the individual by their own actions.*** Thus, at the end of the second phase of the health policy making there was a shift in focus from health statistics and success of health programmes to care of individuals in its long term perspective and community involvement. This period was, however, also characterised by ***compulsuation, compulsectomy, and targetisis****. While the first two were the result of over-enthusiasm during 'emergency' period, the third is a continued process as a 're-enforced' device of bureaucracy.

Third Phase of Health Planning (1977)

The beginning of this phase was marked by the community health volunteers (CHV) scheme (now called as Health Guide Scheme). This scheme which was launched on Mahatma Gandhi's birthday, i.e., October 2, 1977. It envisages one Health Guide for every 1000 population. The Health Guide is selected by the village community which monitors his functioning. He receives the training for three months whereafter he is to provide basic health care and takes measures for maintaining health, hygiene and sanitation in the village. The striking feature of this scheme was that it expects to have a health functionary from the community with their involvement and thereby to bring about a qualitative change in the health care.

The statement on National Health Policy (GOI, 1982) recognises the need for community involvement and the limitations of the 35 years of health planning as follows:

"The existing situation has been largely engendered by the almost wholesale adoption of health manpower development policies and establishment of curative centres based on the western models which are inappropriate and

*Targetisis is an organisational/social disease which reaches its alarming proportions during the months of January, February and March every year.

irrelevant to the real needs of our people and the socio-economic conditions obtaining in the country. The hospital based disease, and cure-oriented approach towards the establishment of medical service has provided benefits to the upper crusts of the society, especially those residing in the urban areas. The proliferation of this approach has been at the cost of providing comprehensive primary health care services to the entire population, whether residing in the urban or the rural areas. Furthermore, the continued high emphasis on the curative approach has led to the neglect of the preventive, promotive, public health and rehabilitative aspects of health care. The existing approach, instead of improving awareness and building up self-reliance, has tended to enhance dependency and weaken the community's capacity to cope with these problems. The prevailing policies in regard to the education and training of medical and health personnel, at various levels, has resulted in the cultural gap between the people and the personnel providing care. Various health programmes have, by and large, failed to involve individual and families in establishing a self-reliant community. Also, over the years, the planning process has become largely oblivious of the fact that the ultimate role of achieving a satisfactory health status for all our people cannot be secured without involving the community in the identification of the health needs and priorities as well as in the implementation and management of the various health and related programmes".

The recent policy recognises that "the success of the decentralised primary health care system depends vitally on the organised building up of individual self-reliance and effective community participation" (Govt. of India, 1982). During the same period, more clear outlining of the health strategies have emerged, the most notable is the document ***Health For All: An Alternative Strategy (ICSSR-ICMR, 1980)***.

The review of this phase (Naik, 1977) would be incomplete without reference to the Alma Ata Declaration (WHO, 1978) which defined primary health care as "essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation at a cost that the community and country can afford. It forms an integral part both of the country's health system of which it is the nucleus and of the overall-social and economic development of the community".

The above review indicates a trend or a shift from health delivery with the community being passive to the community taking the major role is envisaged.

THE CURRENT SCENARIO

It may be noted that Alma Ata Declaration makes it clear that primary health care must be made 'universally accessible to individuals and families in the community through their full participation, and at cost that the community and the country can afford to maintain at every stage of the development in the spirit of self-reliance and self-determination'. As things are, there is a tendency on the part of the people in general, to demand free medical service, free supply of drugs, etc. This

tendency is further accentuated by the political processes wherein starting new hospitals in rural areas becomes a fashionable election promise. In short, it is taken for granted that the way to achieve better health is to create more and more free hospitals and supply of free drugs. This is the negation of the Alma Ata Declaration.

The current health services present a complex picture specially in reference to community involvement in health planning. At present there are health functionaries like the H.G, who are selected by the community (similar functionary for preschool children from welfare sector is a community choice). At the same time, a functioning of the MPWs is not yet satisfactory. The problems are: lack of clarity of their roles, transfer of skills and building up a system of effective support and supervision. Thus, inspite of the fairly massive expansion of the health infrastructure the health status of the population remains far from satisfactory. Another disturbing trend has been greater focus on the 'targets' of family welfare which has been shifting the focus of health to population control. If the current trend to view the work performance in the family welfare as the major, if not the only criteria for effectiveness of a functionary continues, there is likely to be a backlash from the community. It is possible that in the name of family welfare we are again depriving the community an opportunity to be an active agent in health policy. The desire to add newer and newer cadres, through fortunately community based and community selected, indicate an unwillingness to allow the community to set the pace and wanting to decide things from positions of power. The detailed studies of some of the efforts to involve the community have shown how the elite in the rural community covet the opportunities at the selection time and soon join together to exert pressure for greater benefits of pay, security and become part of the state sector. Thus, the current intentions and actions appear in the right direction but the results are not gratifying. Or is it too early to expect changes in this area in such a short time.

Some of the hurdles at blocks are as follows. Firstly, the concept of a community as a body of people organised into a political, municipal or social unit of sharing common qualities is not true for the Indian population. Even while living in rural areas of small numbers the community is not the geographical unit but the caste groups. Not only are the caste groups independent entities but often their goals and aspirations conflict. At present, the political and other considerations drive them to maintain their independent identity rather than merge together and seek common goals. The community involvement has to wait the emergence of homogenous groups of individuals and groups.

Secondly, the physical factor of the population distribution has been a block. Currently nearly 75 per cent of the populations live in population units of less than 1000, poorly linked by road, mass media and other communications. Thus, the spread of information from policy makers to the people and *vice versa* is often on paper only.

Thirdly, the financial inputs for health sector have been meagre and thus the level of health care - that can touch the lives of individuals has not occurred. When the inputs are sufficient to offer a definite level of health care on a regular basis which the community perceives it as their right, there is a definite likelihood of greater community involvement.

Fourthly, as noted earlier, the current phase of community involvement has been more a reflection of achieving family welfare targets than total health strategy. Both the population and health personnel recognise this limited focus and often play the games of meeting the needs without a major shift in levels of involvement in total health policy.

Lastly, the addition of hewer category personnel in rapid succession without clearly defining their roles and interactions and allowing them to establish a working relationship with the community can be counterproductive. They can compete with each other rather than achieve greater results by cooperation.

India is experiencing two impendent development processes of which one is run by the Government and another by the people of the country. The development process as sponsored by the Government is very much integrated in the sense that it leaves no scope for verification in structure, contents and mode of execution. It is run by a highly organised body of administrators whose actions are being regulated by procedures, forms, rules, laws, precedences and such other aspects of formal organisation and management functioning. Side by side, the development process as sponsored by the people of the country does not represent a unity in character and is very much diffused in the sense that it is run by individual family heads at their respective family level to accommodate all sorts of variations for giving satisfaction to the needs, aspirations and wishes of individual members. The community approach or people's participation serves as the key concept in any social development programme. No concerted action has yet been made to evolve and execute social development programmes, but the country has experienced the operation of a good number of economic programmes wherein this community approach has always been emphasised. However, at the implementation stage the contents of the economic development programmes could not leave much scope for mobilisation of group activities, and, therefore, no motivation was carried out to the attitude of the ruralites who were habituated to subscribe to interactions at the family level and not at the community level. There remains the need for social planning to bring an effective change in social structure as well as social organisation. This is to be attempted by assuming the organisation as an input in the process of development, and accordingly, the provision for social development inputs is to be made in action programmes so that technology *vis-a-vis* other development programmes get equal opportunity to integrate with the society and social actions.

Lkkjk'k

इस लेख में प्राथमिक स्वास्थ्य परिचर्या के माध्यम से राष्ट्रीय स्वास्थ्य नीति के लक्ष्यों (अर्थात् 2000 ईसवी तक सभी के लिए स्वास्थ्य) को पूरा करने संबंधी विषय पर चर्चा की गई है। चूंकि प्राथमिक स्वास्थ्य परिचर्या प्रणाली के क्रियान्वयन को सफल बनाने में समुदाय की भागीदारी होना महत्वपूर्ण है, इस लिए यह आवश्यक समझा गया

है कि गत 40 वर्षों में भारत में स्वास्थ्य संबंधी नीति —निर्माण तथा योजना प्रक्रिया में इसकी भूमिका की समीक्षा की जाए। स्वास्थ्य योजना के प्रथम चरण (1952—1972) द्वितीय चरण (1972—77) तथा तृतीय चरण (1977) की समीक्षा की गई है तथा वर्तमान परिप्रेक्ष्य में इस विषय पर चर्चा की गई है। ब्लाक स्तर पर होने वाली कुछेक समस्याओं की ओर ध्यान दिलाया गया है तथा इन समस्याओं के समाधान की दिशा में कुछ सुझाव भी लेख में प्रस्तुत किए गये हैं।

EVOLUTION AND SELECT ISSUES RELATED TO RURAL HEALTH DELIVERY SYSTEM IN INDIA

Indira Murali*

ABSTRACT

Having given the evolution of Rural Health Services, the focus of the paper is on the following points: (i) There is need for deeper understanding of factors affecting health behaviour of rural people so that rational programme planning can be achieved; (ii) Means have to be identified for involvement and cooperation with indigenous systems of medicine based on KAP studies and operational findings; (iii) It calls for identifying means for successful implementation of multipurpose workers strategy for rural health care delivery and health guide scheme; (iv) Urgent attention to the health manpower development for rural areas is required; (v) Meeting the targets for expansion of rural health infrastructure and ensuring its proper utilisation is an important issue; (vi) Strengthening of managerial skills is needed among all health functionaries to ensure effectiveness and efficiency of the system; and (vii) Development of proper information system which would enable proper planning and management of the health care delivery system along with its sub-system is an important need of future programme managements.

Following the attainment of independence about four decades ago in 1947, India began the process of planned development with the start of the First Five Year Plan in 1951. Being a major component contributing towards improvement of quality of life of the people, development of health services has also received considerable attention during this period. Within the constraints of resources for the overall development, health sector has enjoyed its proportionate share made available either directly, or indirectly through related developmental sectors and a series of efforts with encouraging results have been made towards developing a health service delivery system for the country. The evolution of health delivery system for the vast rural population in India has been briefly described in this paper highlighting some of the issues which need to be carefully considered.

RURAL HEALTH SERVICES BEFORE INDEPENDENCE

During the pre-independence period the people in the vast rural areas of India who were disease-ridden, poor and ignorant (illiterate) were extended very limited health services through scattered dispensaries and cottage hospitals. Even though

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the most crucial indicators of health, viz. IMR or MMR in the country were alarmingly high (204/1000 LB; 20/1000 LB respectively)' the colonial power had its major emphasis on health protection of a selective section of population only, like the British Army, British civilians and the elite Indians. Thus, the British colonialists could be seen to have had their own health policy though not documented clearly.

However, the political and social climate in the country at the time of the National Movement inspired the Sokhey Committee as early in 1940 (Banerjee)¹, to look into the health situation in a systematic manner and to make recommendations for a realistic but bold health services system for the people of India.

The ruling British colonial authority of India before it attained independence appointed the Health Survey and Development Committee, popularly known as Bhole Committee to review the health situation and make proposals for organising better health¹ services for the people⁵. After a careful, systematic, thorough and painstaking analysis of the then existing health conditions the foundation of a sound concept of rural health service was laid as indicated in their voluminous report and recommendations. Thus hitherto neglected rural population which was recognised as the backbone of the Indian economy suddenly became the focus of attention. Their health needs were recognised and a highly ambitious health services programme based on concepts of comprehensive and integrated health care with clear-cut objectives, contents and structure was recommended by the Committee. The health services structure of our country as it stands today, owes a great deal to these recommendations. The major one of these was the provision of comprehensive health care to every individual in the community through the vast net-work of primary health units supported by secondary and District Health Units.

RURAL HEALTH SERVICE DEVELOPMENT - FIRST TO FOURTH PLAN PERIOD

With the acceptance of these recommendations for implementation in the country after its attainment of independence, a new era in the history of health services development in India started. Even today to a great extent, the basic principles and the, various related proposals and recommendations for health services mentioned in the report are valid and relevant to our country. The present efforts on delivery of primary health care to people in India cannot be considered drastically different from those components recommended by the Bhole Committee. Almost every aspect of health services, *i.e.* personal as well as community health care; including curative services with adequate referral support; control of communicable diseases through specific vertical programmes; MCH and family planning; need for coordination of health with other developmental sectors like water supply, agriculture, housing; need for community involvement through village health committees etc. were all reflected in the recommendations made by the committee. The unfortunate fact is that most of these recommendations could not be effectively translated into reality through appropriate actions from all fronts by our administrators.

Following attainment of independence, the commitment made by the Government to raise the standard of living of the entire population including public

health is clearly reflected in the Directive Principles of State policy of the Constitution of India. Through the successive Five Year Plans, formulated by the country, the Government have been trying to translate the goals of social and economic policy presented in these Directive Principles into national programmes based upon assessment of needs and resources. In the area of health also, a series of major developments took place which in recent times have been principally focussing on efforts to provide services to those sections of population - mainly the rural population who somehow were being left uncovered earlier.

The directions and guidance provided by the Bhole Committee (1946) have been the chief basis for health planning in India. In addition to the efforts made to establish primary health centres for providing comprehensive medical care to the rural masses for tackling the alarming situation due to widespread prevalence of communicable diseases like TB, Malaria, Leprosy, Filariasis, Smallpox, etc. national disease control programmes were initiated in a vertical fashion with separate organisations. To provide referral support to the basic health services provided to the rural people through the above infrastructure, there was rapid expansion of hospitals and related facilities at taluka, district and State levels. Efforts were also initiated to produce enough number of health manpower for manning these services viz. Doctors, Nurses, Auxiliary and Paramedical functionaries.

The successive Five Year Plans reflected the strategy of Government of India to tackle the social and economic problems, of which health problems also received considerable attention. The major landmark in the development of rural health infrastructure was the establishment of Primary Health Centre which continue to remain the nucleus of Rural Health Care delivery system. Seven hundred and twenty-five of them were established during the First Five Year Plan period and 2800 by the Second Plan, and 4800 centres by Third Plan (1966). With the staff strength of one Medical Officer, one Health Visitor, Pharmacist, Sanitarian and four ANMs, each PHC was catering to the needs of a population of one Community Development Block covering 80-100,000 population. During the latter part of Third Plan, with the increasing recognition of importance of family planning, Rural Family Planning Centres were added on to the PHC Complex with additional staff strength of one Medical Officer, one Health Visitor, one Block Extension Educator, a Computer, a Junior Clerk, Health Assistant (one for every 20,000 population) and one ANM for every 10,000 population. Under this set up delivery of integrated MCH and Family Planning services was initiated for the rural population.

Health planning in India has been broadly guided by recommendations made by various health committees appointed from time to time. According to the changes in the health situation in relation to emergence of newer health problems or requirement of changes in strategies under different health programmes, committees reviewed the health situation and made various recommendations relating to changes in organisational or operational aspects of health delivery. The Health Survey and Planning Committee (Mudaliar Committee) of 1962⁶ was appointed to review the successes in implementation of Bhole Committee recommendations. One of the main features of this committee's recommendations was the emphasis laid on ensuring proper use of already established infrastructure

with a provision of referral support to them at district and taluka levels with appropriate strengthening of facilities.

BASIC HEALTH SERVICES: INTEGRATION OF MALARIA AND FAMILY PLANNING

The Malaria Control Programme initiated in 1955 (which was later converted into Eradication Programme) was predominantly a rural based programme and showed creditable achievements in the early phase of its implementation. As a pre-determined programme strategy, at one stage the programme was to enter into a maintenance phase in many parts of the country during which the continued surveillance/vigilance activities were to be taken over by or integrated with the basic health service infrastructure viz. the PHC. The Chadha Committee in 1963 examined the preparedness of the PHCs towards this end, looked into the details of strategies and staff requirements for this integration and made recommendations for continuation of vigilance operations for Malaria by Basic Health Workers through domiciliary visits along with additional responsibilities like collection of vital statistics, family planning activities as well as environmental sanitation and health education -an integrated manner of delivery of services. However, this integration of family planning services at the service delivery level was not acceptable by many and in 1965 Mukherjee Committee categorically made recommendations for delinking family planning from the BHW's responsibilities. Accordingly, family planning was to be continued as a vertical function to be delivered by separate staff, viz. Family Planning Health Assistants.

The issue of strengthening the basic health services was of major concern to the authorities so that it will be prepared to take over the various vertical programmes once they have achieved a certain degree of control over the specific problem. Mukherjee Committee of 1966⁷ worked out the details regarding the contents, strategies and resources required at different levels for providing basic health services. Accordingly, in the rural areas BHWs at the rate of one. for 10.000 population were to function along with sub-centre based functionary i.e. the ANM for providing basic health services.

Five Year Plan period marked some major developments in the field of health services in India, particularly the rural areas¹². The significant achievement of eradication of smallpox - a major scourge in India - was made by the dedicated effort of the health professionals with massive support from international agencies like WHO. Another major development was the, initiation of a minimum needs programme whereby a package containing services related to important fields of socio-economic development like health, education, nutrition, environmental improvement including water supply, housing, electrification etc. with a major shift in emphasis from the urban to the rural poor. In the field of health also a new integrated strategy of delivery of health services was accepted through the multipurpose workers. The recommendations made by the Kartar Singh Committee (1973) were the basis for this decision⁸. Under this scheme, integrated package of services were to be delivered to the rural folks by a team of male and female MPWs for a sub-centre catering to population of 5000. Many of the vertical mass campaigns like family

planning, malaria, immunization were emerged into one package under this strategy and this led to further strengthening of the Primary Health Centres. The philosophy underlying the MPW strategy appeared extremely appealing with the economy that it could have achieved through pooling of multiple resources under different vertical programmes: with the community's acceptance that might have resulted due to the inclusion of treatment of minor ailments as one of the functions of the MPWs as well as freedom from inconvenience nuisance caused by frequent home visits by different functionaries without attending to their felt needs; with the acceptability and satisfaction among workers that could have resulted due to the lesser population load and functional area of jurisdiction etc. Unfortunately, even though the implementation of MPW scheme was initiated in phases with its massive orientation training responsibility in the beginning, even today clear evidence is lacking from anywhere in the country to demonstrate its full implementation. Due to various technical, administrative and operational problems the scheme could not take off well in the intended manner.

Keeping in view the problems to the rural people due to lack of accessibility to sources of medical and health care, accent of the various efforts during the Fifth Five Year Plan was on ensuring establishment of the rural infrastructure, *i.e.* PHCs and sub-centres as per the recommended norm of one PHC per 100,000 population and one sub-centre per 10,000 population, under the Minimum Needs Programme. In addition, in order to provide proper referral support to these peripheral services through specialist's services as close to the people as possible, efforts were initiated to upgrade one out of every four PHCs with additional facilities for 30 hospital beds and posts of specialists representing basic specialities of Medicine, Surgery, Obstetrics and Paediatrics. However, achievements in this regard fell short of targets and against a target of 1293 rural hospitals during the plan period only about 215 could be established by 1978.

COMMUNITY ORIENTATION OF RURAL HEALTH CARE

The next few years witnessed a major change in the general outlook towards health care not only in India but all over the world. The dissatisfaction with the model of health care with its heavy dependence on hospitals, specialists and super-specialists as well as the bias towards urban well-to-do classes became much explicit. Alternative models of health care without such over-emphasis on professionalisation, institutionalization and centralisation were being searched for and successful experiences were being reported from various parts of the world and from India also, wherein members from the community by themselves proved to be very effective agents for taking care of minor health issues of the people after a short training under the organised health system. Need for community oriented health manpower development became a matter of major concern and the Srivastava Committee was appointed by Government of India for examining this issue and to suggest means and methods for achieving this.

The recommendations made by Srivastava Committee⁹ formed the foundation for initiation of two important health schemes during the Sixth Five Year Plan which had considerable bias towards community orientation and that too the rural

community. These were the Community Health Workers Scheme and the Reorientation of Medical Education Scheme (ROME Scheme).

The new rural health scheme viz. the CHW Scheme was initiated in 1977, in selected primary health centres initially, under which a representative of the village community proposed or selected by the community itself was to receive three months training and thereafter to take care of the primary health care needs of a population of about 1000 with full technical support from the existing organised health infrastructure. It is significant to realise that even before India's signing of the Alma Ata Declarations where the primary health care strategy and its delivery through CHWs were accepted globally, the country had launched the CHW scheme which got extended almost on a national basis (the exceptions were States like Kerala and Jammu & Kashmir where other alternative measures were being taken to deliver primary health care to the rural population). Even though initially the Government was to meet the expenses for the programme, in the long run it was expected that in real spirit of primary health care, the community itself would take over this responsibility and would bear the cost of scheme.

The second scheme launched on the basis of the recommendations of the Srivastava Committee was the ROME Scheme whereby the centres of excellence for rendering medical care viz. the Medical Colleges were brought into the arena of delivery of health care and referral support to the rural areas. Under this scheme, three blocks and their PHCs were to be attached to the medical college whereby the total health care responsibility was vested with medical college authorities and in the long run, the health care delivery in the whole district was to fall in the hands of the medical college. Though apart from making excellent health services available to the rural people, this scheme was primarily meant to create among the medical students a concern for rural community through alterations in the medical education, there are not many evidences to demonstrate successful implementation of the scheme as envisaged according to its underlying philosophy.

RURAL HEALTH SERVICE DEVELOPMENT: SIXTH AND SEVENTH PLAN PERIOD

India's signing of the Alma Ata declarations and its subsequent identification with the Asian Charter led to its commitment to achieve the goal of Health for All by the year 2000 AD through primary health care approach. The Minimum Needs Programme continued to remain the instrument through which health infrastructure in the rural areas was expanded and strengthened to ensure delivery of Primary Health Care to the rural masses. Under the revised MNP targets adopted during the Sixth Five Year Plan¹¹, which were aimed at accelerating the pace at which rural infrastructure was provided, one Primary Health Centre was to be established for every 30,000 population or 20,000 in hilly or tribal areas and one sub-centre for every 5000 population and 3000 in hilly and tribal areas. As against upgrading one out of every four PHCs into 30 beaded rural hospitals proposed during Fifth Plan period, it was aimed at establishing community health centres for coverage of one lakh population with 30 beds and specialised medical care services as the first link in the referral services. Another effort to improve delivery of integrated health care was

through converting the existing rural dispensaries (which were purely curative oriented and without any specific area-wide health care responsibility) into subsidiary health centres and eventually into PHCs. In many situations despite having been formally sanctioned by Government such infrastructure remained ineffective or non-functional due to delays in their construction, including accommodation facilities for staff. Therefore, extra emphasis was laid on completing the backlog in construction of these facilities during the Sixth Plan.

One of the major developments that is noteworthy during this period was the formulation of the National Health Policy for India which was politically approved in 1983. Even though health services development in India was progressing in the past, the underlying policies were not explicit or documented and mostly this was guided by recommendations of the technical committees appointed.

For the first time, in India a health policy document was prepared and this clearly indicated the political commitment towards delivery of health care. The policy clearly spells out the major goals to be achieved and the direction in which the health services system in the country has to move. Undoubtedly one of the main items requiring priority attention according to the policy has been expansion of infrastructure for primary health care especially in the rural areas.

DAIS AND RURAL HEALTH CARE DELIVERY

In the history of health services for villages, one of the very important members of the human resources for delivery of maternal health care in rural areas has been the village Dai. Realising the valuable contributions by this group of women, and the social acceptability they have been enjoying in the rural areas coupled with the recognition that ensuring availability of services by fully trained ANMs in the vast rural areas to meet the maternal and child health needs is nearly impossible, the Government had initiated a scheme to provide training to the dais and use them more effectively. Trained Dai still remains a significant member of the health team for primary health care delivery and Government aims to ensure availability of Trained Dai in each village for a population of 1000. They need to be considered partners in maternal health to work in close liaison with the organised health care system in the rural areas.

NATIONAL HEALTH PROGRAMMES/SCHEMES AND RURAL HEALTH SERVICES

Along with expansion of health infrastructure by way of PHCs, sub-centres and CHCs for the rural areas, simultaneously, different health programmes and schemes were also being launched in the country. Having been conceived as programmes to run vertically for varying periods, most of them had separate organisations and manpower strength under each, but formed part of the total health delivery system for rural areas, e.g. Malaria, Leprosy, Smallpox, Family Welfare, etc. However, TB Control Programme has been totally integrated with existing rural health infrastructure with its referral support from the District TB Centre. With the launching of MPW Scheme, functionaries under Malaria, Family Welfare, and

Smallpox were totally integrated with staff strength of the PHCs. However, staff under Leprosy Control/Eradication Programme still continue to function under a vertical organisation, though mostly serving in rural areas. The Blindness Control Programme which is depending heavily on the camp approach being extended by the Mobile Teams has also made provision for an ophthalmic assistant stationed at the PHC (at the CD Block) level to function under the supervision of Medical Officer, PHC. The initiation of programme/schemes like diarrhoeal disease control, prophylaxis against nutritional anaemia and blindness due to Vitamin-A deficiency, Expanded/Universal Programme on immunization and MTP services have not provided for any additional manpower resource at the PHC level but the activities under these were incorporated as duties of the MPWs (both male and female) already functioning there. Integrated Child Development Service Scheme (ICDS) has been implemented in Selected CD Blocks in the rural areas (likely to be expanded to cover more rural areas) and though there has been no clear-cut addition of human resources under health services for this programme, a band of Anganwadi Workers (1 /1000 population) and their supervisors functioning in the selected blocks would serve as strong support to the health functionaries.

Though net work of programme services has been expanded over the past four decades, it has been generally observed that services are not optimally utilised due to many factors like inaccessibility and lack of credibility of services. Therefore, in the Seventh Plan, the various types of infrastructure in rural areas below District level, their status of establishment and staffing recommended at PHC/CHC level at various stages are indicated in Appendix I, II, III and IV.

SOME ISSUES RELATED TO RURAL HEALTH CARE DELIVERY SYSTEM

1. There is a general feeling that majority of the rural masses seek medical care from traditional village healers³. Behavioural Scientists need to investigate reasons for this. Is it due to lack of faith in modern medicine or is it due to non-availability or due to inaccessibility to such sources? It is also suggested that modern interventions of proven effectiveness need to be integrated into a system that is well established and accepted. The question is should it be? And if yes, how to do so?
2. MPW Scheme was accepted for rural areas with the hope that it would solve many functional/operational problems in health care delivery. However, in effect it has proved otherwise. Programme officers responsible for erstwhile vertical programmes blame the scheme for inadequate performance under their programme component due to the dilution effect of efforts. Multipurpose workers do not consider the strategy to have helped them in any way, neither by increasing their acceptability and credibility in the community nor by reducing their workload. Treatment of minor ailments by MPWs was envisaged as their duty in the beginning but this responsibility is confined to only female workers leaving the male MPW in the same position where he was before. Attitudinal barrier towards acceptance of this scheme is still existing at all levels of hierarchy. The time gap between the training (of whatever quality) and actual initiation of operation of the scheme has been too wide to nullify the utility of training. Personnel administration by way of rationalisation

of pay scale etc. has not been achieved by many States. At this juncture, what should be our move? A concerted effort towards actually improving the implementation of the scheme, overcoming all bottlenecks or accepting failure and revert back to the vertical programmes?

3. Issues related to manpower for rural health care delivery are of the nature of shortage in supply/availability, in appropriateness and lack of preparedness due to faulty training, lack of motivation among personnel due to poor manpower management including working conditions, recognition, remunerations, supervision, etc. Sincere commitment from every administrator/trainer concerned would go a long way to improve the situation.

4. Health Guide' Scheme was launched in India with the hope that in the long run people in rural areas would themselves be responsible for their own health. Repeated evaluations at micro and macro levels have shown certain favourable features of the schemes, like their acceptability by villagers, reasonably satisfactory provision of treatment of minor ailments to rural people, adequate support to the functioning of the programmes like Malaria, Family Planning etc.

However, critiques of the scheme have brought out many drawbacks.g. lack of proper procedures for selection of CHW, no effort for continuing education/refresher training of CHW, over-emphasis by CHWs on curative services and in many areas CHWs turning into practitioners of licensed quackery, lack of appropriate control by villagers on CHW, non-existence of Village Health Committees or their being non-functional etc.

5. Present period being the transitional phase during which the health infrastructure in rural areas is being reorganised i.e. conversion of rural dispensary into new PHC; conversion of sub-divisional hospital into referral hospital etc. There is lot of confusion among health authorities in terms of the new nomenclature (new PHC, additional PHC, Old PHC, CHC, upgraded PHC etc.) as well as in terms of geographical areas/population to be covered, redistribution of population and functions and establishing administrative linkages between institutions functionaries, e.g. Is the Medical Officer of new PHC directly answerable to CMO or to the BMO? What is the role of CHO and where are they available and how are they used? Where are the Health Educators in new PHC?

6. Rigidity in standards and costs to be incurred in construction of rural infrastructure coupled with inadequate provision of supporting residential facilities for rural health personnel have hindered the progress of development and effective utilisation of the rural health services.

7. The health services system is characterised by too many categories of personnel. This poses serious problems for developing graded structures conducive for career development. With such large and diverse manpower, developing performance appraisal standards is a gigantic task. The problems get further compounded for necessity of having female workers for health problems specific and women on account of socio-cultural considerations: who may have to reside in insecure and inhospitable environments. The staffing pattern for various types of facilities have not been developed on a rational basis. Supervisory practices

conducive for development of supportive supervision and team work on account of a number of reasons have not developed to the desired extent. The task of preparation of health manpower through orientation and re-orientation, has also not been addressed to adequately.

8. With the heavy dependence on the Primary Health Centre for rural health service delivery through which implementation of a large number of health programmes is to be achieved, the role of the Medical Officers of the PHC can be viewed as very significant. These would be related to clinical competence, managerial competence, leadership quality, communication and coordination within and outside health sector etc. Strengthening of the Medical Officer's position through adequate technical and administrative support and through proper orientation towards management practices is extremely important if successful progress is to be achieved in Rural Health Service Delivery².

9. Lack of adequate information base on different aspects of rural health service poses problems in proper and rational planning. Though the CBHI tries to get information from States, at the national level on infrastructure development, manpower situation etc. there is problem of incomplete/delayed/nil information from different States. Even at the State level the health planning ideally should be based on such updated information.

In this regard another problem is that even though an institution is reported to be established or a category of manpower is reported to be in position, in many situations in reality either of them may not be existing in the place or time as reported. Common example is that of a sub-centre and an ANM being posted there, wherein the sub-centre building may be without of sanction post of ANM, or sanctioned ANM must be working elsewhere though posted against a sub-centre.

APPENDIX I

STAFF RECOMMENDED AT PHC LEVEL

S. No.	Category	Staff as per model plan of PHC	Additional staff under	Additional staff per. basic health service	Total
1.	Medical Officer (Graduate in Modern Medicine <i>i.e.</i> M.B.B.S)	1	1	-	2
2.	Health Inspector or	-	4	2	6
3.	Health Assistant				
4.	Compounder	1	-	-	1
5.	Sanitary Inspector	1	-	-	1
6.	Nurse Midwife Health Visitor	1	1	-	2
7.	Aux. Nurse Midwife or Midwife	4	6	-	10
8.	Basic Health Worker 1 for 10.000	-	-	8	8
9.	Lab. Technician	-	-	1	
10.	Extension Educator FP		1	-	1
11.	Computer	-	1	-	1
12.	Storekeeper	-	1	-	1
13.	Driver	1	-	-	1
14.	Class IV/Female Attendants	2	8	-	10
Total		11	23	11	45*

Note: 'One Ophthalmic Assistant per PHC per block under NPCB (Blindness Control) and one additional post of Medical Officer at the PHC under CHV/HG Scheme also have been added on.

APPENDIX II

STAFF RECOMMENDED FOR NEW PHC

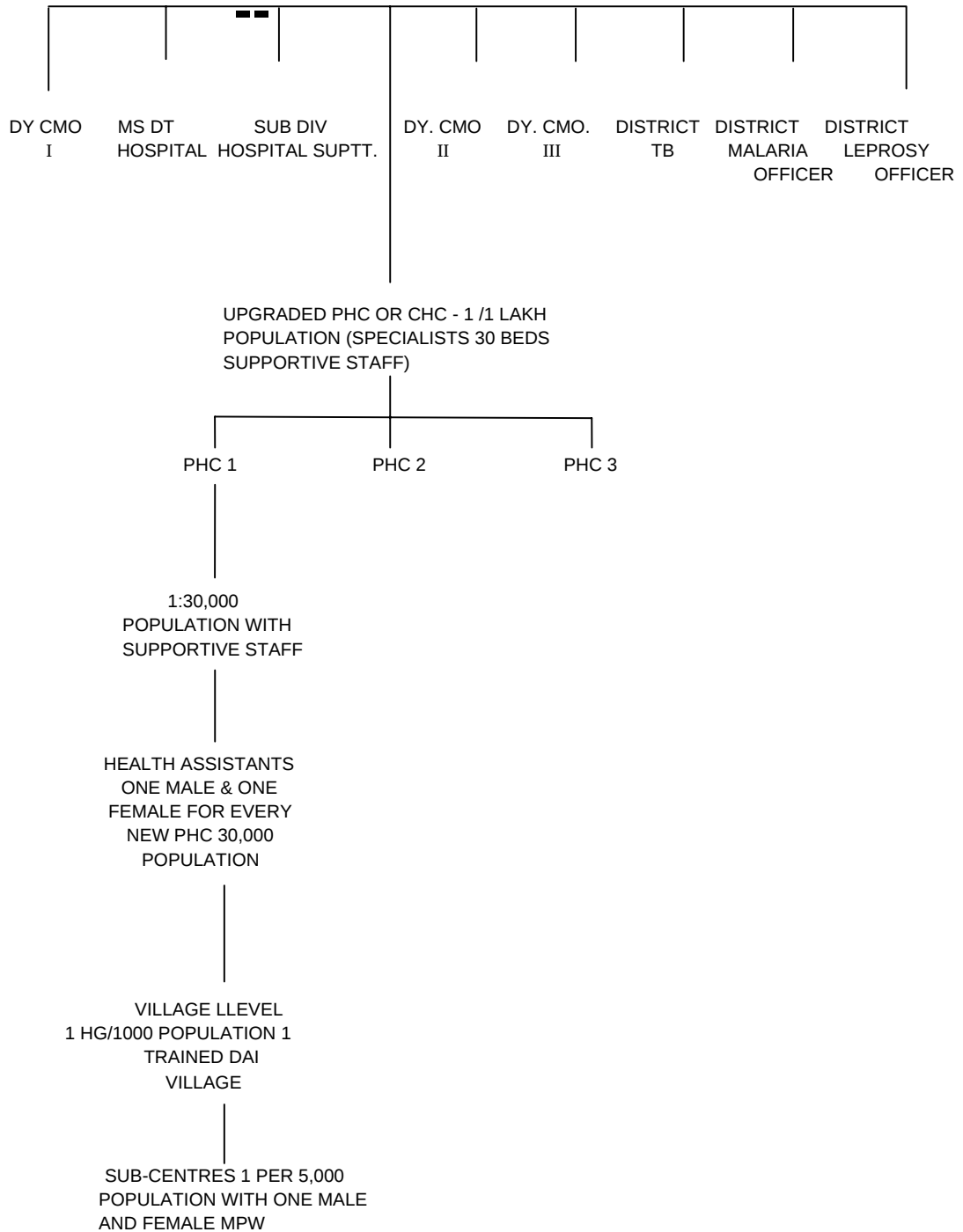
Medical Officer	1
Community Health Officer	1
Pharmacist	1
Lab. Technician	1
Nurse Midwife	1
Ax. Nurse Midwife	1
Health Educator	1
Clerical and Other Support	

STAFF RECOMMENDED FOR CHC

In addition to existing PHC staff	
Specialists	4
Nurse Midwife	7
Dresser	1
Lab. Technician	1
Radiographer	1
Pharmacist	1
Ward Boys	2

APPENDIX III

DISTRICT AND BELOW ORGANISATION OF HEALTH SERVICES



APPENDIX IV

NUMBER OF PHCs. SUB-CENTRES. CHCs FUNCTIONING ARE ON 31.3.1986

PHCs	8496
Sub-centres	88950
CHCs	711

ESTABLISHMENT OF PHCs AND SUB-CENTRES SINCE FIRST FIVE YEAR PLAN

	PHC	Sub-Centre
First Plan	725	-
Second Plan	2565	-
Third Plan	4631	-
AS on 31.03.1969	4919	22826
As on 31.03.1974	5283	33509
As on 31.03.1980	5485	47112
As on 31.03.1985	57284	82946
As on 31.03.1986	8496	88950

ग्रामीण स्वास्थ्य सेवाओं के विकासक्रम की विवेचना करने के पश्चात लेख में निम्नलिखित मुद्दों पर प्रकाश डाला गया है: 1—ग्रामीण के लिए तैयार किए जाने वाले कार्यक्रमों की युक्तिसंगत योजना तैयार करने के लिए यह आवश्यक है कि ग्रामीण के स्वास्थ्य संबंधी व्यवहार को प्रभावित करने वाले पक्षों के बारे में गहराई से समीक्षा की जाए, 2— देशी पद्धति को इस कार्यक्रम में सम्मिलित करने तथा समर्थन प्राप्त करने के लिए केएपी अध्ययनों और संक्रियात्मक अध्ययनों के निष्कर्षों के आधार पर उपाय खोजने होंगे। 3— लेख में, ग्रामीण स्वास्थ्य परिचर्या वितरण प्रणाली और स्वास्थ्य गाइड स्कीम के लिए बहुउद्देशीय कार्यकर्ता रणनीति का सफलता पूर्वक लागू कराने के लिए उपाय खोजे जाने का सुझाव भी दिया गया है, 4— ग्रामीण क्षेत्रों के लिए स्वास्थ्य जनशक्ति विकास की ओर तत्काल ध्यान देने की आवश्यकता है, 5— ग्रामीण स्वास्थ्य संबंधी संगठनात्मक ढांचे के विस्तार और इसका उचित उपयोग सुनिश्चित करने के लिए लक्ष्यों को पूरा करना एक महत्वपूर्ण प्रश्न है: 6—इस प्रणाली को प्रभावकारी तथा दक्ष बनाने के लिए सभी वर्गों के स्वास्थ्य कार्मिकों में प्रबन्धकीय कौशल को सुदृढ़ करने की आवश्यकता है, 7— उचित प्रकार की सूचना प्रणाली का विकास करना भी कार्यक्रम प्रबन्धों की एक महत्वपूर्ण भावी आवश्यकता है, जिससे वह स्वास्थ्य परिचर्या वितरण प्रणाली और इससे संबंधित उप-प्रणालियों के लिए उचित प्रकार की योजना बनाने और उसका प्रबन्ध करने के लिए सक्षम हो सकेंगे।

REFERENCES

1. BANERJEE, D. (1963) Making of the Health Services in India. Part one, May 1963.
2. GUPTA, J.P., SHARMA. M. AND MURALI. I. (1986) Reorganisation and Reorientation of the Health Services Delivery System in India, Mimeographed.
3. NARAYANA, N.J. (1980) Rural Health Care Delivery System - A Plea for an Alternative Approach. The Administrator, XXV.(4).
4. KULKARNI, P.M. (1987) "The Barefoot Doctors of China and the Health Guides of India". *Social Science Problems*, 4 (3), 1987.
5. GOVERNMENT OF INDIA (1946) Report of the Health Survey and Development Committee, 1946 (Bhore Committee).
6. GOVERNMENT OF INDIA (1962) Report of Health Survey and Planning Committee, 1962 (Mudaliar Committee).
7. GOVERNMENT OF INDIA (1966) Report of the Committee on Reorganisation of Family Planning Services Administration and Basic Health Services 1966 (Mukherjee Committee).

8. GOVERNMENT OF INDIA (1973) Report of the Committee on Multipurpose Workers under Health and Family Planning Programme (1973) (Kartar Singh Committee).
9. GOVERNMENT OF INDIA (1975) Group on Medical Education and Support Manpower (1975), (Srivastava Committee).
10. GOVERNMENT OF INDIA (1985 TO 1990) Seventh Five Year Plan 1985-1990. II.
11. GOVERNMENT OF INDIA Draft Sixth Five Year Plan.
12. GOVERNMENT OF INDIA Draft Fifth Five Year Plan.

HEALTH SERVICES DEVELOPMENT IN URBAN AREAS

Shakuntala Bhatnagar*

ABSTRACT

The health services infrastructure has not been as planned as it was in the rural area. The outcome was that services were curative and hospital based and there was an emergence of multiple agencies including private nursing homes providing the health services. The issues and strategies suggested for improving health services were: (i) A strategic implementation of raising female literacy and providing opportunities for young adolescent girls to be educated; (ii) Involvements of voluntary organisations for adoption of clusters of population for delivery of health services; (iii) Adoption of the urban revamping scheme was an important strategic issue; (iv) Improving the managerial process and management information system must be considered seriously; (v) Use of slum based women population for social marketing of contraceptives and oral rehydration salts with folic acid tablets, etc., should be increased; and (vi) Regionalisation of health services with proper referral systems may be required for future implementation.

"We have at last become conscious of slum areas. That is undoubtedly some gain though by itself it does not take us far. The consciousness of this problem has brought the realisation of its urgency and, at the same time, of its magnitude. Looking at these slums and the sub-human conditions in which men and women live, it was felt that some immediate action must be taken to bring about a change. And then the vastness of the problem confronts us and we feel a little overwhelmed." (**Pandit Nehru on "Slum Clearance and Urban Renewal in Delhi - 1958"**).

PROCESS OF URBANISATION

At the beginning of the nineteenth century, only 3 per cent of the people in the world lived in the urban areas. This figure rose to 10 per cent at the turn of the twentieth century and increased to 25 per cent in 1950 and to 40 per cent in 1980. It is projected that by the year 2000, about 48 per cent of mankind will live in the urban areas, and nearly two-thirds or 63 per cent in 2025 A.D. Thus, in the coming decades, an increasing proportion of the total population growth will be absorbed by the increase in the urban population.

Developed countries, already urbanised to the extent of 70 per cent in 1980 will have over 85 per cent of their people resident in the urban areas in 2025 A.D. The proportion of the population inhabiting the urban areas of the developing regions will

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rise from 30 per cent at present to 40 per cent by the year 2000 and close to 60 per-cent in 2025 A.D. The annual rate of urban population growth in the developing countries is, therefore, much higher than that of the developed countries.

In the industrialised regions, the rate of urbanisation which earlier touched very high levels, will slow down in the years to follow. But in the developing countries, the urbanisation process will continue to accelerate as in the recent decades, and only begin to decrease around the turn of the century. In the next few decades, the world particularly the developing regions will due to rapid urbanisation, undergo economic, social and cultural changes of. magnitude and pace not experienced by mankind before.

The usual interpretation of the process of urbanisation is heavily based on the experiences of industrialised countries, the key elements of this process being (a) the increasing complexity of technology and (b) a shift in the demand for labour from the agricultural to the non-agricultural sector. An imbalance between labour demand and the geographical distribution of labour supply, creates various 'pushes', and process contributing to a redistribution of population has thus been internal migration from rural to urban areas, with a resulting rise in the proportions of the population living in the cities to the various levels that prevail today.

URBAN GROWTH IN INDIA

The Asian countries have 20-40 per cent of population in urban areas. Latin American countries now have 30-50 percent of their people living in towns; in Africa. which is the least urbanised of the continents, urban dwellers now account for 10-25 per cent of the total population. But urbanisation all over the developing world is now at rates of between 5 and 12 percent per year far in excess of the population growth rate. This rate of urbanisation has led to the creation of shanty towns, it has led to the phenomenon of large groups of unemployed, poorly-educated city folk who are living in degradation and squalor. Unlike the rapid urbanisation in Europe which occurred largely in response to job opportunities during the industrial revolution, the dissatisfied youths of the developing world are running into towns to escape the desperate hopelessness of rural living though some of them fare much worse in the cities.

According to 1981 census. 23.3 per cent of India's population lives in urban areas and had grown at a rate of 4.6 per cent every year which is much higher than national rate of 2.4 per cent. Today every fourth Indian lives in a town. Between one fourth and half of the urban population in India's largest cities live in make shift shelters, squatters and slums. With the process of migration from urban to rural areas assuming gigantic proportions, the housing shortage is expected to grow to 40.9 million units - 31.2 million units to rural and 9.7 million units in urban areas by 1990.

The urban population living without the basic minimum social services is increasing even faster than the overall urban rate. Though traditionally cities have benefitted from a disproportionate share of resources available for development of health care, yet the distribution of these resources amongst the urban people is

often unequitable and not in proportion to their needs. In Delhi alone, which has seen a population increase from two to eight million between 1957 and 1987, there is an addition of 60,000 people each year, who need to be provided with new housing and all other basic amenities. Almost 70 per cent of its population lives in sub-standard conditions. To illustrate, Jehangirpuri, the Delhi's largest resettlement colony, which has 12 blocks of 2,000 houses each, does not have a single sewer line. The community lavatory its residents are forced to use, does not even have the provision of running water.

With the country's slum population at present standing at nearly 30 million, slum dwellers form 32 per cent of the population in Delhi, 38 per cent in Bombay and 42 per cent in Calcutta. The situation is no better in the eight other metropolises of Bangalore, Hyderabad, Ahmedabad, Kanpur, Pune, Nagpur, Lucknow and Jaipur.

The slum population, governmental efforts notwithstanding is expected to show a sizeable increase by the next decade adding further to the housing and sanitation problem and the squalor condition in these towns.

HEALTH ISSUES IN URBAN AREAS

Health issues in the urban areas are intimately linked to changing demography and to a variety of socio-economic factors, including education, housing,

TABLE 1
BIRTH RATE BY RURAL/URBAN, INDIA AND MAJOR STATES, 1986

INDIA/STATES	RURAL	URBAN	COMBINED
INDIA	34.1	27.0	32.4
Andhra Pradesh (8)	32.2	28.7	31.4
Assam (12)	35.5	24.8	34.7
Bihar (14)	36.7	29.6	36.0
Gujarat (10)	32.9	30.8	32.2
Haryana(13)	36.5	29.1	34.9
Himachal Pradesh (7)	31.3	20.0	30.6
Jammu and Kashmir (11)	35.6	25.4	33.5
Karnataka(4)	29.7	26.6	28.8
Kerala (1)	22.3	23.0	22.4
Madhya Pradesh (16)	38.9	30.0	37.1
Maharashtra (6)	31.6	27.0	30.0
Orissa (9)	32.7	26.1	32.1
Punjab (3)	29.0	27.2	28.6
Rajasthan(15)	37.9	29.7	36.4
Tamil Nadu (2)	24.1	23.0	23.7
Uttar Pradesh (17)	39.1	30.7	37.5
West Bengal (5)	33.3	19.7	29.5

Source: R.G.I.

(Figure in parenthesis indicates rank of the State in terms of birth rate (combined) in ascending order)

employment, environmental conditions and communication. Given the magnitude of urban health problems and the commitment of our government to goal of HFA by the year 2000 through primary health care approach, the challenge for health sector and for health planners is enormous. The Birth Rates and Death Rates in urban population against that of rural have been shown in Tables 1 -3.

A term 'fourth world' has been used for describing those whose housing, sanitation, clothing and food are inadequate, for those whose cause is not championed by trade unions, who have little information and education and voice. This description fits exactly with the poor living in the slums and *jhuggi-jhopris*. From the economic point of view such people are considered a burden to the society and from the health point of view a danger. Of 160 million urban population 32-40 per cent are such slum dwellers. Only about one third of their children go to school, 60 per cent of them suffer from malnutrition and have highest morbidity due to diarrhoea. Slum children are engaged as labourers in tasks which are far too strenuous for them and they work for long hours.

The women in slum areas seek work to support their families in adverse and low-economic jobs, and run a risk of physical and mental stress. They have little

TABLE 2

ESTIMATED DEATH RATE BY RURAL / URBAN INDIA AND MAJOR STATES, 1986

INDIA/STATES	RURAL	URBAN	COMBINED
INDIA	12.1	7.6	11.1
Andhra Pradesh (8)	10.7	7.1	9.9
Assam (11)	12.9	7.9	12.6
Bihar (13)	14.1	8.5	13.6
Gujarat (9)	11.3	6.6	10.5
Haryana (4)	9.2	6.1	6.5
Himachal Pradesh (6)	8.7	7.2	8.7
Jammu and Kashmir (4)	9.0	6.8	8.5
Karnataka (5)	9.3	6.8	8.6
Kerala (1)	6.7	6.9	6.7
Madhya Pradesh (13)	14.8	8.7	13.6
Maharashtra (3)	9.7	6.0	8.4
Orissa(12)	13.4	7.8	12.9
Punjab (2)	8.7	6.5	8.1
Rajasthan(10)	12.5	8.4	11.7
Tamil Nadu (7)	10.7	7.0	9.4
Uttar Pradesh (14)	15.7	10.0	14.6
West Bengal (6)	9.5	6.7	8.7

Source: SRS. (R.G.I.)

(Figures in bracket denote the rank of the State in terms of combined death rate in ascending order.)

access to health and MCH services. You may be appalled to know that most slum women are still delivered at home and that too by untrained dais. The slum women are not affected by the family welfare programmes as they show high level of fertility rates. The fertility rates of urban population in general have been shown in Tables 4 and 5.

The urban poor are at an interface between under development and industrialisation and their disease-pattern reflects the problems of both. From the first, they carry a heavy load of infectious diseases and malnutrition while from the second they suffer the typical spectrum of chronic and social diseases. Urban malaria is known to have caused a set-back to the eradication programme in our country. Tuberculosis is highly prevalent in slum and *jhuggi* dwellers because of overcrowding and poor sanitation. Man made conditions of urban environment such as industrialisation, pollution, road traffic accidents lead to stress diseases and mental affections.

TABLE 3

INFANT MORTALITY BY RURAL/URBAN INDIA AND MAJOR STATES, 1986

(Provisional)

INDIA/STATES	RURAL	URBAN	COMBINED
INDIA	106	62	96
Andhra Pradesh (8)	88	58	82
Assam (14)	111	69	109
Bihar (11)	102	65	99
Gujarat (13)	124	66	107
Haryana (9)	91	60	85
Himachal Pradesh (10)	90	41	88
Jammu and Kashmir (7)	86	58	81
Karnataka (5)	82	48	74
Kerala (1)	28	20	27
Madhya Pradesh (15)	124	81	117
Maharashtra (2)	73	44	63
Orissa(16)	127	75	123
Punjab (3)	71	55	67
Rajasthan(12)	110	69	104
Tamil Nadu (6)	93	54	80
Uttar Pradesh (17)	140	88	132
West Bengal (4)	75	54	71

Source: SRS. (R.G.I.)

(Figures in bracket denote the rank of the State in terms of combined IMR in ascending order.)

TABLE 4
TREND IN AGE-SPECIFIC FERTILITY RATE (RURAL AND URBAN)

AGE- GROUPS	RURAL			URBAN		
	1972	1978	1984	1972	1978	1984
15-19	111.5	96.2	92.9	75.5	61.2	63.3
20-24	260.9	259.8	266.9	233.5	212.9	228.0
25-29	256.8	243.3	246.4	237.6	190.5	204.5
30-34	205.1	183.5	174.6	175.1	118.5	115.4
35-39	142.0	107.4	106.6	93.8	62.9	59.9
40-44	66.3	50.4	53.3	37.7	22.5	22.6
45-49	31.2	18.0	25.2	15.6	6.8	8.8

Source: SRS (R.G.I.)

TABLE 5
TOTAL FERTILITY RATES BY RURAL/URBAN INDIA AND MAJOR STATES, 1984

INDIA/STATES	RURAL	URBAN	COMBINED
INDIA	4.8	3.5	4.5
Andhra Pradesh (5)	4.1	3.5	4.0
Assam (6)	4.4	2.8	4.3
Bihar (11)	6.0	4.9	5.9
Gujarat (5)	4.2	3.4	4.0
Haryana (8)	5.3	3.8	5.0
Himachal Pradesh (4)	4.0	2.6	3.9
Jammu and Kashmir (7)	5.1	3.2	4.6
Karnataka (3)	4.0	3.3	3.8
Kerala (1)	2.4	2.4	2.4
Madhya Pradesh (9)	5.4	4.0	5.1
Maharashtra (3)	4.1	3.3	3.8
Orissa (6)	4.4	3.6	4.3
Punjab (3)	3.9	3.3	3.8
Rajasthan (10)	6.0	4.5	5.7
Tamil Nadu (2)	3.5	3.0	3.3
Uttar Pradesh (11)	6.2	4.8	5.9
West Bengal (4)	4.5	2.4	3.9

Source: SRS. (R.G.I.)

(Figures in brackets denote the rank of the State in terms of combined TFR in ascending order).

HEALTH SERVICES IN URBAN AREAS

India is committed to achieve the goal of HFA by 2000 A.D., To translate this goal into reality the first step should be a thorough reappraisal of health care services in rural and urban areas.

Usually, it is assumed that people in an urban area are well covered by municipal health services and saturated with large hospitals, innumerable dispensaries nursing homes specialists and general practitioners and RMPs.

In spite of such concentration of health facilities in the cities compared to the rural areas and relative proximity of hospitals and other facilities standards of health care seems to have fallen far below reasonable levels for those who live in slums and *jhuggi jhopris*. While the principles of delivery of primary health care are equally applicable to urban health systems as to the rural health the slum population remained ignored to this date. There also exists a vast discrepancy between the quality of health Care delivered by the private sector within the different urban population.

The health delivery system of an urban area particularly that of large cities consists of hospitals, dispensaries and MCH and urban Family Welfare Centres run by the Government, Municipal Corporations, Central Government Health Scheme and E.S.I.

The presence of large hospitals and out-patient departments has almost certainly had a depressing effect upon the development of a more coherent health infrastructure in cities. Network of health centres and sub-centres such as those planned in rural areas do not exist in urban situations. In practice, many people in the city go to pharmacists for basic advice and only visit hospitals, when there is an emergency. This inevitably leads to a highly curative approach to health care: Also, the use of traditional practitioners and practices continues among the poor in many cities has suggested that folk medicine has survived in modern urban centres not only because large number of people have faith in it but also because as a system of medical care it has not remained rigid. It has adapted itself to the new urban scene.

Good description of the common health problems of the urban poor in the developing world can be found in Ebrahim (1984) and Rossi-Espagnet (1984). The latter suggests that in addition to all the diseases there are three other groups of factors which are detrimental to health which operate heavily against the urban poor. The first includes low income, limited education, insufficient diet, overcrowding and under protection. The second relates to man-made conditions of the urban environment, such as industrialisation, pollution traffic; stress and alienation. The third is the result of social and psychological instability and insecurity.

The excessive vulnerability of the urban poor and their exposure to pathogenic agents means that infectious diseases and malnutrition are severe health problems in slums and shanty towns. Often an imported reservoir of infection is continually replenished by rural-urban migration, which in turn reinforces local transmission/for example, as in the case of malaria.

Urban malaria is still a significant problem. The breeding of *Anopheles* mosquitoes, the carrier of malaria, is made possible by the stagnating water collections from rain and other sources which are common in poor urban areas as a result of water mismanagement, lack of drainage and sanitation, and general environmental neglect. Epidemics of other vector-borne diseases such as dengue, haemorrhagic fevers and increased transmission of filariasis have occurred in poor urban areas. This is associated with the need of households to store water in metallic or earthenware containers leading to the breeding of the mosquito *Aedes Aegypti* (Vector of dengue fever), and the accumulation of waste water around settlements that favours the mosquito *Culex pipiens fatigans*. (an increasingly important vector in the transmission of filariasis).

Tuberculosis is highly prevalent in the slums and shanty towns of the developing world where infection is frequent and early. Malnutrition occurs both as a cause and as an effect of diarrhoeal diseases. The scarcity and contamination of water supplies and the lack of sanitation and appropriate sewage disposal make diarrhoeal diseases one of the most important health problems in poor urban areas. Disease incidence and mortality are also influenced by factors such as overcrowding, poor housing conditions, density of insects and vermin, lack of rubbish disposal poor personal hygiene, contamination of food, low literacy and inappropriate weaning and other feeding practices. A variety of intestinal parasites is usually present, with *Ascaris* and *Trichuris* often observed at higher levels than in corresponding rural population.

In such crowded settlements there is also the danger of meningococcal meningitis as in many of the squatter areas of UP and Bihar. High prevalence rates of preventable infections in children like measles, whooping cough and polio suggest that adequate coverage with immunization is a priority in such overcrowded communities.

The man-made conditions of the urban environment cause particular health problems for the urban poor. Environmental pollution, which is a widespread problem for all urban people, affects the poorest more severely since most of them live at the periphery where manufacturing, processing and distilling plants are often built, and where environmental protection is frequently weakest. In 1984 the escape of lethal gas in Bhopal led to the death of 2,500 people, and a gas explosion in Mexico City demonstrated the vulnerability of squatters who 'live next door to disaster'.

Safe water, solid waste disposal and acceptable housing have been particularly deficient in marginal urban areas, has pointed out that the desire for a copious and clean water supply usually ranks highest of all amongst expressed needs in squatter neighbourhoods. Bhatnagar (1986) suggests that the success of preventive work in poor urban areas will only rest on improved water supply and sanitation.

Social and psychological problems as a result of political, economic and social instability form another group of health problems for the urban poor. The protective structure of the local communities and extended family is generally replaced by the

nuclear family unit on migration into the city. Single parent households, often headed by a woman are common. With the need for such women to work the neglect of children is almost inevitable. The children may have to contribute to the family income, working under precarious conditions, where they may well be exposed to accidents and abuse.

In contrast to the relatively stable and homogeneous rural village, the migrant to the city finds a society that is very heterogeneous, culturally and linguistically; transient and mobile; opportunistic and restless. Prostitution venereal disease drug addiction and alcoholism are growing problems in poor urban areas. Amongst the mental effects of the changes experienced on moving to the city alcoholism and depression are often found to be the most frequent besides severe anxiety-neuroses in poor urban areas. One other aspect of health which is rarely mentioned in the literature on poor urban communities is care of the handicapped which is deplorable.

HEALTH PROFILE OF URBAN POPULATION

In general the birth rates and other fertility rates are much lower in urban areas than the rural population all over the States (Tables 1.2 and 3). Similarly, the Crude Death Rates and Infant Mortality Rates have showed a remarkable reduction in urban areas of India (Tables 4 and 5). The plausible reasons for this improvement in health indices is the availability and utilisation of services concentrated in urban areas. However, it would rather be important to study the health profile of more than one third of population at a given time in urban slums in peri-urban areas, which is even worse than rural areas.

To illustrate this the author undertook an epidemiological study in four urban slums of Delhi including a resettlement colony, the type which had an epidemic of Cholera in Delhi in month of July 1988, one which has been highly publicised where the handpumps have been removed now. Though the backlog of garbage is removed but while planning the resettlement colonies nobody visualised the implication of shallow water resource, open drainage and open defecation. Morbidity spectrum and maternal and child health services utilisation were studied and the population profile has been presented in the tables 6-9. A total number of 1200 households were studied. The information on diarrhoeal episodes was collected on 3645 children below 5 years. It has been observed that a slum child suffers from 8 episodes of diarrhoea each lasting for 3/4 days. This incidence was found to be 3-4 times higher than that of national average as has been shown in Table 7. The morbidity pattern and maternal and child health services profile in 4 slums is described below.

Population Characteristics: Vast majority of the households lived under very poor conditions devoid of basic civic amenities such as potable drinking water, defecation facilities, covered drains/sewer system, electric supply etc. of the 4 slums studied Ballimaran was adjudged the best and Seelampur (JJ Colony) the worst on the bases of the above parameters (Table 6).

TABLE 6
HOUSEHOLD AND POPULATION CHARACTERISTICS OF URBAN SLUM DWELLERS OF DELHI

Sl.No.	Characteristics	Slums				
		Mangol puri	Seelampur (JJ colony)	Construction site cluster Nehru Place	Balli-maran	Study area (combined study)
1.	Total population covered	1439	1962	776	1734	5911
	- Males	814	1053	435	982	3284
	- Females	625	909	341	752	2627
2.	No. of children (0-6 yrs. age)	345	556	183	367	1451
	% to total population	24.0	28.3	23.6	21.2	24.5
3.	No. of families	300	400	200	300	1200
4.	% population below poverty line	22.1	46.3	32.3	19.4	28.9
5.	% Literates {5 age}					
	- Male	78.5	47.3	75.5	78.7	68.6 74.0
	- Female	38.7	29.9	36.4	75.3	43.5 53.6
6.	% children going to school					
	- Male	82.7	45.3	78.5	71.1	67.9 83.6*
	- Female	60.9	42.2	70.0	72.1	59.1 53.6*
7.	% Households:					
	a. Using water through:					
	- Running Taps	49.2	19.6	73.9	67.0	47.8
	- Handpumps	50.8	80.4	26.1	33.0	52.2
	b. Having electricity	65.3	11.4	-	96.6	44.1
	c. Defecating in open space	5.7	56.5	98.0	0.3	36.6
	d. Disposing refuse in open space	85.7	97.5	99.5	6.0	72.0
	e. Disposing water in open drains/field	87.0	98.0	99.5	6.7	72.7
8.	% male population (14 yrs) engaged in gainful activities	50.8	62.6	65.0	54.2	57.4 57.0*
9.	% youths (15-24 yrs) unemployed	48.4 (93)	33.6 (122)	47.5 (40)	33.8 (157)	38.3 (412)

NOTE: Figures in parenthesis indicate number.

The above estimates are derived by using the poverty line of Rs.75 per month (at 1977-78 prices) corresponding to minimum daily calorie requirement of 2100 in urban areas.

*Urban India.

TABLE 7

MORBIDITY PATTERN DUE TO DIARRHOEAL DISEASES IN SLUMS OF DELHI

	Characteristics	Mangolpuri	Seelampur (J.J. Colony)	Construction site cluster (Nehru Place)	Ball- imaran	Total
1.	No. of children 5 years covered in the survey	927	1105	916	647	3645
2.	No. of children with diarrhoea on day of survey	232 (25%)	423 (38.3%)	203 (22.1%)	105 (16.2%)	963 (26.4%)
3.	No. of episodes of diarrhoea during last two weeks	245	506	252	111	1114
4.	Estimated number of episodes of diarrhoea per child per year	6.9	11.9	7.2	4.1	7.9
	0-5 years					
	0-6 months	9.8	9.8	6.4	4.5	8.1
	6-12 months	11.3	18.6	16.6	5.2	13.6
	1-2 years	10.4	15.1	9.8	7.4	11.3
	2-3 years	5.6	10.3	7.1	4.5	7.2
	3-4 years	4.3	9.4	2.7	2.0	5.0
	4-5 years	3.0	7.4	2.6	1.9	3.0
5.	Average duration of each episode of diarrhoea in days	3.9	3.0	3.5	4.5	3.9

TABLE 8

MORTALITY PATTERNS IN URBAN SLUMS OF DELHI

Sl.No.	Characteristics	Number/Percentage
1.	Population	4460
2.	Children (6 years of age)	1451
3.	Total Deaths	48
	- under 1 year of age	19
	- one or more years of age	29
4.	Cause(s) of death: (%)	
	- Fever (unqualified)	16.7
	- Diarrhoeal/Vomiting	16.7
	-Chronic cough	4.1
	- Injury	4.1
	- Child birth/complications of pregnancy	4.1
	- Respiratory infections	22.9
	- Tetanus	6.3
	- Others (including undiagnosed cases)	25.0

(Seventy-two per cent deliveries were conducted at home, with only 8 per cent attended by qualified doctors. Physical examination of pregnant and lactating women revealed that about 20 per cent of them were suffering from severe anaemia and lack of vitamin B complex. Only about 25 per cent women were practising some family planning method couple protection rate worked out to 20 per cent - Table 4.)

TABLE 9
MATERNAL AND CHILD HEALTH CARE AND FAMILY PLANNING PRACTICE IN
URBAN SLUMS OF DELHI

Indicators		Urban slums of Delhi	Urban India
1.	No. of pregnant women at the time of survey	117	
2.	Percentage registered for antenatal care	21.4	
3.	Receipt of Iron and Folic Acid Tablets	16.4	
4.	Tetanus Toxoid	120	
5.	No. of deliveries held during 1983	221	
6.	Place of delivery		
	- At Home	71.5	49.4*
	- At Institution	28.5	50.9*
7.	Type of Attendance at Home		
	- Doctor	82	16.1
	- Dai Trained	158	
	- Dai Untrained	74.1	33.0
8.	Percentage of couples practicing family planning by method		
	- Vasectomy	2.8	25.0
	- Tubectomy	6.2	
	- Loop/Cu-T/IUD	2.1	3.0
	- Oral Pills	2.3	7.8
	- Conventional	11.8	(All other methods)
9.	Total couples currently protected	25.2	35.8
10.	Couples effectively protected	19.5	32.3
11.	Percentage of children immunized with 3 doses of;		
	- Polio	26.8	
	- DPT	18.1	
	- BCG	61.7	
12.	Percentage of children 6 years in Gr. II and III of malnutrition (Harvald)	2.5	

The population had a broad base with 48 per cent population below 15 years of age. The sex ratio (females per 1000 males) being 800.

Literacy rate for males was 51 per cent and for females 33 per cent. Nearly 46 per cent of the children were not attending school for economic reasons and 38 per cent for no specific reasons. Main occupation was skilled and unskilled jobs both for males (85 per cent) and females (87 per cent), Average period of employment in a year for males was 9.6 months and for females 8.7 months. Twenty per cent of the male population was not doing anything. The proportion of women employed was only 24 per cent.

Morbidity Pattern of the Population: About 9 per cent of the population was sick on the day of survey with 8.2 per cent males and 10.4 per cent females. Fifty five per cent of the sickness was due to fever alone comprising of unqualified fever (46.5 per cent) and malaria fever (8.5 per cent), other important types of "sickness were digestive disorders (13.2 per cent) respiratory disorders (10.7 per cent) and skin diseases (7.2 per cent). Fever ranked number one disease in all the slums studied with very high proportions (60 per cent or more) in Mangolpuri and construction sites. Digestive disorders accounted for 25 per cent of the total sickness in Seelampur (JJ Colony) and respiratory disorders accounted for 22 per cent of the sickness in Ballimaran. Skin diseases were relatively more (13.5 per cent) in labour colonies.

Age-group 6-14 years had the highest proportionate sickness rate (288 per cent), followed by age group 25-34 years (26.1 per cent) and 15-24 years (15.7 per cent).

Prevalence rate of sickness was high (16 per cent) among population of 45+years of age. In all other age groups (6 to 44 years) prevalence rate ranged from 8 to 10 per cent alone comprising of unqualified fever (37.1 per cent) and malaria fever (20.3 per cent), followed by digestive disorders (18.5 per cent). Contribution of rheumatic, respiratory and skin diseases ranged from 5 to 6 percent each. Inter slum analysis shows the same trend with digestive disorders more marked in Seelampur -(24 per cent) age-group 6-14 years had the highest proportionate sickness rate (31.8 per cent) followed by age-group 25-34 years (29.7 per cent) and 15-24 years (16.6 percent).

Prevalence rate of sickness was highest (12.9 per cent) in 25-34 years age group. In all other age groups prevalence rate ranged from 7 to 12 per cent.

Chronic Sickness Lasting for More Than 3 Months: Over 5 per cent of the population was suffering from chronic sickness with 4.7 males and 5.6 per cent females.

Respiratory disorders were the most common ones (43.6 per cent) followed by skin diseases (14 per cent), rheumatic diseases (12.8 percent) and tuberculosis (10 per cent). Inter slum analysis showed a high incidence of TB in Seelampur (16.7 per cent), skin diseases in construction sites (47.9 per cent), rheumatic diseases in Ballimaran (24.4 per cent), Proportionate chronic sickness was highest (23.7 per

cent) in 25-34 years age group closely followed by next-two age groups of 35-44 years (21.1 per cent) and 45-49 years (20.6 per cent). Prevalence rate was high in elderlies of 45-59 years age-group (17.2 per cent) and 60 years age (23.7 per cent).

Morbidity Pattern in Children Below 6 Years of Age: About 13 per cent of the children were reported sick on the day of survey with 12.3 per cent males and 13.7 per cent females. Thirty-six per cent of the sickness was due to fever alone comprising of unqualified fever (34.2 per cent) and malaria fever (1.6 per cent). Diarrhoea contributed 22.3 per cent to total sickness followed by other digestive disorders (12.5 per cent) and skin diseases (9.8 per cent). Contribution of other disease groups was less than 7 per cent in any of the disease group. Some picture was evinced in all the slums with diarrhoea/digestive disorders skin diseases and respiratory disorders showing varying degrees of magnitude.

Highest proportionate sickness rate was reported in age group 1 -2 years (23.0 per cent) closely followed by 2-3 years age group (22.5 per cent) and in infants of less than one year age (18.7 per cent).

Prevalence rate of sickness was highest (15.8 per cent) in 2-3 years age group. In all other age groups prevalence rate ranged from 10 to 12 per cent.

Chronic Sickness (More than 3 Months in Children): A total of 1.3 per cent (19) children were having chronic sickness with 1.8 per cent (15) males and 0.6 per cent (4) females. Of the 19 chronically sick children 38 per cent (7) were due to polio paralysis alone; other important ailments were digestive disorders (27.7 per cent), respiratory disorders (11.1 per cent), tuberculosis (5.5 per cent) and rickets (5.5 per cent).

Children in the age group 3-4 years bore the highest brunt (36.8 per cent) followed by 1 -2 years age groups (21.1 per cent) 2-3 years and 5-6,years (15.8 per cent each). Prevalence rate was less than 3 per cent in any of the age group. The impairment rate for males and females was 4.8 per 1000 males and 3.8 per 1000 females.

Polio paralysis was the most important impairment (4.8 per 1000) among children. Out of total of 51 deaths (occurring during last one year preceding the survey), 22 per cent (11) were due to respiratory infections, 16 per cent (8) each to fever (unqualified) and diarrhoea among children of vomiting and another 6 per cent (3) due to tetanus.

Forty-three per cent (22) of the total deaths were reported among children of under one year of age, giving an infant mortality rate of 97.8 per 1000 live births (indicator is just to know the magnitude of the problem and not to generalise due to small sample (size). 14 per cent (7) in 1 -2 years age group and 12 percent (6) to 2-3 years age group. One third of all deaths were attended by only relative/friends etc. and not by any medical personnel. Mortality patterns in urban slums have been depicted in Table 8.

MCH & FP Profile in Slums: Crude birth rate (CBR) of the slums was computed at 37.9 per 1000 population. The average age at effective marriage for

women was 17.3 years with general marital fertility rate of 170.4 and total marital fertility rate 5.4. Average number of living children being 2.7 and nearly one third of births were 4 + order births. MCH and family planning practice in urban slums of Delhi have been shown in Table 9.

Nearly 84 per cent of the currently married women (CMW) had knowledge of at least one method of family planning while total acceptors were only 26 per cent. Couple protection rate worked out to 19.5 per cent for the slums.

Average age of wives of vasectomy acceptors and tubectomy acceptors was in the vicinity of 34 years which is much higher than that of the national average of 30.5 years with 3 to 4 number of living children while for IUD and oral pill acceptors it was 31 and 30 years with 3.4 and 3.1 number of living children respectively.

Eleven per cent (117) of the currently married women were pregnant at the time of survey, with only 21 per cent registered for antenatal care. Nearly 72 per cent of all deliveries were conducted at home, with only 8 per cent attended by qualified doctors. Physical examination of pregnant and lactating women revealed that about 20 per cent were suffering from acute anaemia and lack of Vitamin B complex. Nearly 13 per cent of the pregnant and lactating women were receiving supplementary nutrition.

Protection against tetanus was received by 17.4 per cent of the pregnant women. Of 202 children in 0-1 age 60 per cent were totally breast fed and 26 per cent were fed by breast and other feeding practices. Average length of breast feeding was 12.4 months. Semi-solid supplement was introduced to children at an average age of 7.2 months. About 3 per cent of the children were identified in Grade II and Grade III of malnutrition with maximum (11 percent) malnutrition observed under one year of age, Bitots spot was present in 3.2 per cent children, stomatitis in 0.2 per cent flat nails in 9 per cent and enlarged lymph nodes in 10 per cent children.

A total of 18.1 per cent children on 0-6 age group were immunized with 3 doses of DPT, 26.8 percent were given all the 3 doses of polio vaccine and 61.7 percent BCG and 7.0 per cent measles, Vitamin A prophylaxis with 3 doses was found to be very poor 0.8 per cent.

Of the felt health needs about 7.4 per cent respondents expressed the need for a hospital/dispensary, 63 per cent for environmental sanitation, 10 per cent for potable drinking water supply and 4 per cent for public latrines. Of the perceived needs 49 per cent stated employment, 33 per cent housing and 10 per environmental sanitation.

About 62 per cent of the families were utilising services from purely private sources, 24 per cent both from government and private sources and only 14 per cent from totally government sources. Eighty one per cent households avail facilities within a distance of 2 kms. About 11 per cent households in income range of Rs.500 utilise services from government sources, the utilisation increased to 18 per cent among people in income range of Rs.500-1000 and to 23 per cent among those in income group of Rs.1001 and above. Maximum utilisation of all health facilities was for children.

Urban Revamping Scheme: It can be realised that the major problems in big cities are due to services not available to rapidly appearing colonies and slum areas. To mitigate this the Ministry of Health and Family Welfare appointed a group in 1982, which gave recommendations for reorganisation of family welfare and primary health care services in urban areas. To strengthen the outreach, a plan was suggested to put up a health-post for every 5000 population which should be manned by a nurse-midwife, a male health worker and a woman volunteer per 2000 population. The States and municipal corporations were asked to assess the needs to strengthen their urban family welfare centres and to take the services upto peripheral level with volunteer workers. Except in Bombay and Madras where the local self bodies took interest to reorganise the services, the scheme by and large remained infrastructures.

Urban Basic Services (UNICEF): Having recognised the high level of morbidity and mortality in the slum children, the UNICEF has supported the programme of Urban Basic Services. (This programme provides child care services, water and sanitational facilities) and income generation activities for the mothers. The programme covers all the towns in a selected district.

Recommendations for Health Care Delivery: If we are committed to the goals of delivering Health for All by 2000 A.D. and NRR 1, the existing health and morbidity pattern in the urban slums is even worse than in the rural areas of India. The most important and common features in all slums are the extremely insanitary environmental and hygienic conditions in which the slum population is living. Hence, health and nutrition status and morbidity and mortality pattern in the slums present a dismal picture. Fevers including malaria are the commonest illness in both adults and children and diarrhoea amongst the children, Needless to say high prevalence of malaria is due to all time stagnating in puddles and open drainage. Diarrhoea's prevalence in children is about four times more than the national average which is quantifiable and attributable to handpump water, open drainage, open defecation and open refuse disposal.

The key issue is provision of good environmental sanitation which should consist of.

1. Adequate housing
2. Closed drainage.
3. Public latrines
4. Facilities for refuse disposal
5. Piped water supply from deep tube wells.

The water supply from the deep tube wells is very necessary as the diarrhoeal prevalence is very high in all those who consumed handpump water as is proven once again by Delhi epidemic of cholera in trans Yamuna slums.

Poverty and Lack of Employment Amongst Slum: The population below poverty line varied from 46.3 per cent to 19 per cent in different slums, 16 per cent to

25 per cent households were under debt for routine expenditure and that 38.3 per cent of youth between 15-24 years did not have employment days in every month. The main cause of migration to urban areas as stated is to find jobs. Hence it is recommended that well thought of self-sustaining and long-term projects should be desired to provide income generation activities particularly for women. Most construction site slums necessarily developed around the big construction projects, also did not provide enough employment to women. The contractors are required to provide medical facilities and creches for the young children which they failed to do. Hence, the labour authorities should take special steps to ensure proper health care to such populations which are beyond the scope of MCD because of their temporary settlements.

Literacy and Socio-Economic Situations; Literacy and facilities for primary education and child labour about 70-78 per cent women were illiterate in 3 slums and 30-58 per cent girls and 17-54 per cent of boys aged 5-15 years were not attending any school. Reasons being no school in close vicinity and admissions not available and between 22-40 per cent cannot even afford to send the child to school. The Operation Blackboard should be made to start within the slum areas. The adult education teams should work on crash basis in such areas. The illiteracy amongst women is the general underlying factor for high morbidity in children and poor acceptance of family planning methods. Hence, concerted efforts should be made to start adult functional literacy with income generation activity.

Maternal and Child Health Services: A high level of neonatal infant and maternal mortality higher prevalence of malnutrition in female and children and poor coverage by immunization, ICDS programme and Vitamin-A is a pointer to poor availability of MCH services in slum areas. Two slum areas under study Seelampur and Construction site dwellers did not have access to any MCH and Family Planning Centre.

Both slums were unrecognised and unlisted. It is high time that population of such magnitude who are living in these areas for last 10 years or more should be listed and services provided to them as in any other resettlement colony. A network of primary health care service should be made available to slum people as in rural areas. Seventy five per cent of women are delivered at home and that also by untrained dais. The dai training programmes were abandoned in urban areas long time ago, but under the current scene it will be only advisable, not only to revive them but to have a crash training of existing dais. This short survey reported 3 cases of neonatal tetanus and 7 of poliomyelitis.

FERTILITY PATTERN OF SLUM POPULATION AND PROFILE OF CONTRACEPTIVE PRACTICES

The data shows that the average family size of slum dwellers ranged between 6 to 7.5 members per family. About 54 per cent of children born in last one year belonged to birth order 3 and above. At least 80 per cent of married women knew about one method of family planning or more. However practice of family planning

use was restricted to only 19.5 per cent of eligible couples. It was strikingly noted that the conventional contraceptives (Nirodh) was not reaching the slums through commercial marketing channels. Needless to say an intensive network of family planning motivation and acceptance should be created on priority basis, which should be integrated with MCH care. The pattern of acceptance of family planning followed closely as that of rural areas.

The slum dwellers primarily contacted private practitioners, registered or unregistered practising within the slum areas for treatment of illness and during emergency and spent to the tune of Rs.20 to 47 per month for the treatment. It is recommended therefore that while identifying the resources and manpower within the slum proper involvement and assignment of responsibilities should be given to such private practitioners, untrained dais and other volunteers. Such practitioners should also be designated as depot holders after proper briefing for storing and distribution of Nirodh. ORS packets, chloroquin tablets for malaria, folic acid tablets for pregnant women.

Social Change in Slum Dwellers: There seems to be ready awareness towards modernisation. More than 50 per cent houses possessed radios and transistors about 18 per cent had the television sets. About 50 per cent felt the need for more employment opportunities, better housing and sanitation. They also felt that besides government solving their problems, by having a smaller family they could cover up some of their maladies. It is advisable, therefore, that availability of basic maternal and child health services, family planning, immunization etc. and diarrhoea control should be insured within each cluster of the slum.

As said earlier a movement should be created for enhancing literacy and income generation amongst the women of the slums. More of the mass media radio messages can be concentrated on slum population in light of the results of this study. Movement may also be taken up by private voluntary organisations to cover certain slums for providing a wide range of activities for slum women and health facilities.

STRATEGIES FOR URBAN HEALTH BY 2000 A.D.

Genera: In an attempt to cope with these problems, a fundamental issue is to adopt such policies which can control the influx of rural population in urban areas on one hand and to provide primary health to all urban people proportionate to their needs. Some such approaches which have merits can be mentioned below:

- a. To improve social and economic conditions in rural areas, through agrarian reforms, labour and tax policies etc., to prevent migration mostly for employment.
- b. To control migration through legal measures, including residence at work points, slum removal and obligatory resettlements.
- c. To redistribute the rural population within the rural areas at construction sites (Orissa, MP.) and other major projects.

- d. To accommodate migrants in urban areas by providing resettlement sites etc.

Specific to Health and Health Related Systems

Policy Formulation: There should be a national policy to treat the urban and particularly to slum populations at par with the rural population and basic minimum services should be made available to them.

The family welfare department has drawn out a proposal with 100 per cent central funding for re-organisation of primary health care and family planning in urban areas by taking the outreach towards periphery by providing 1 woman volunteer for 2000 population and female MPW and a health post for 510,000 population. However, still adequate guidelines have not been issued to implement the scheme.

Intersectoral Coordination: The Ministries of Works and Housing and the Town Planning Department should coordinate with health departments for providing suitable sites for hospitals and dispensaries. Proper perspective plans for water supply, drainage and sanitary latrines should be drawn in consultation with health.

Legislation: Realistic standards should be drawn out for housing, water supply and sanitation of the poor.

REGIONALISATION OF SERVICE AND REFERRAL SYSTEM WITH EXISTING HOSPITALS AND INSTITUTIONS

Hospitals have an important role in fostering and encouraging the growth of primary health care - a role which some areas of the world they are already pursuing. As a prerequisite, however, there must be a strong and unequivocal statement from political leaders at all levels of their commitment to primary health care. The commitment must be unambiguous: leaving the people and administrators in no doubt that the political leadership of the country, right up to and including the very highest level, is committed to primary health care the key to achieving health for all by 2000 A.D.

Every hospital should be associated with a well-defined catchment area within a regionalised framework.

Every hospital should have a department of community health to mobilise interest, expertise and direct interactions on one side with the clinical services and on the other with the communities in its catchment area. The department should have a multi-disciplinary composition and foster and encourage teamwork. The responsibilities of these departments of community health should include:

- a. Support and encouragement to primary health care in the hospital's catchment area;
- b. In-service training for reorienting hospital health workers in order to change the 'hospital outlook' to a health outlook;

- c. Cooperate with the education and supervision of primary health care workers in the field including helping to improve management and administration;
- d. Collaborate with the community in seeking relevant information on health problems and appropriate solutions;
- e. Ensure that the hospital meets its referral and logistic support responsibilities;
- f. Develop effective way in which the community can assist in improving hospital services;
- g. Work with other sectors, non-governmental organisations and the catchment area;
- h. Identify gaps in the primary health care services and introduce appropriate innovations.

Such community health department attached to the hospitals should keep their linkages with the health department of municipal corporation or committees.

Hospitals Boards should be set up who can take a stock of total health situation in the city or town and should have powers to reallocate the resource if desired by the health and morbidity situations.

It will be important to allocate the population to hospitals for making the regionalisation and referrals possible. The verification of population can be based on issue of ration cards, should be eligible for primary health care.

Managerial Processes: There should be city health department coordinating the services provided by different agencies. Proper management information evaluation system should be introduced taking the feasibility and multiplicity of agencies into account. There should be a cell for health planning and epidemiological intelligence in each town having population of 100,000 who should be responsible for carrying out continued situational analysis and appropriate programme planning. Survey teams should be available to such cells who can provide information on any component or services through investigations.

Involvement of Voluntary Organisations: Governmental support and guidance should be provided to the voluntary and private sector to augment their services and give priority to preventive and promotive activities.

Involvement of Private Practitioners: As such urban community prefer to take the services of private doctor, their involvement in preventive and promotive services should be encouraged and they should be brought in the main stream by giving them adequate orientation and recognition.

Community Organisation and Self Reliance: The settlement colonies and slum people should be encouraged to organise health clubs, creches for children and volunteer workers for promotion of health in the community.

Health Insurance: It will be challenging to encourage private insurance agencies to undertake health insurance for the people who are not cared by the organised sectors.

Use of Mass Media for Self-care and Prevention of Epidemics:

Poorest of poor in urban areas possess radios and transistors. This media to educate the community should be exploited as far as possible. The messages should be timely and appropriate. The media of television can be utilised more and more with emphasis on health programme.

Health Services Research and Epidemiological Stations: It will be important to have a epidemiology cell in the municipal areas which are provided with survey and research staff. Such a cell should keep the central registry for principal diseases reported from the hospitals/centres. A survey unit under the supervision of epidemiologist and programme managers should be entrusted with evaluatory studies and testing of innovative schemes.

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स्वास्थ्य सेवाओं के अवसरचनात्मक ढांचे की योजना ग्रामीण क्षेत्रों के अनुरूप तैयार नहीं की गई है। इसका परिणाम यह हुआ कि यह औषधात्मक तथा अस्पतालीय बनकर रह गई है और प्राईवेट नर्सिंग जैसी अनेक अस्तित्व में आ गई हैं जो उन क्षेत्रों में स्वास्थ्य सेवाएं प्रदान कर रही हैं। इन सेवाओं में सुधार लाने के लिए लेख में निम्नलिखित सुझाव प्रस्तुत किए हैं: 1— महिला साक्षरता का बढ़ावा देने के लिए किशोर लड़कियों को शिक्षित करने के अवसर प्रदान किए जाने चाहिए, 2— विभिन्न जनसंख्या समूहों को स्वास्थ्य सेवाएं प्रदान करने के लिए स्वैच्छि संगठनों को सम्मिलित किया जाना चाहिए ताकि वह पिछड़े क्षेत्रों की जनसंख्या को सेवाएं प्रदान करने के लिए धारण कर सकें 3— सेवाओं में सुधार लाने के लिए शहरी पुनरोद्धार योजना को धारण करना एक महत्वपूर्ण विषय है 4— प्रबन्धकीय प्रक्रिया तथा प्रबन्धकीय सूचना प्रणाली में सुधार लाने के लिए गम्भीरता से विचार किया जाना चाहिए, 5— गर्भ—निरोधकों और फॉलिक एसिड गोलियों के विपणन के लिए स्लम क्षेत्रों में रह रही महिलाओं की सेवाओं का अधिक से अधिक प्रयोग किया जाना चाहिए, तथा 6— सेवाओं के भावी क्रियान्वयन के लिए उचित प्रकार की रैफल प्रणाली के साथ स्वास्थ्य सेवाओं का क्षेत्रीयकरण किया जाना चाहिए।

REFERENCES

1. UNICEF (1986) An Analysis of the Situation of Children in India. New Delhi.
2. CENTRAL BUREAU OF HEALTH INTELLIGENCE, DIRECTORATE GENERAL OF HEALTH SERVICES, MINISTRY OF HEALTH AND FAMILY WELFARE (1985) **Health Statistics of India. New Delhi.**
3. CENTRAL HEALTH EDUCATION BUREAU (1984) **Wafer Supply and Sanitation in Urban Areas. New Delhi.**
4. DELHI DEVELOPMENT AUTHORITY, PERSPECTIVE PLANNING WING (1981) Project Report of Resettlement Scheme. New Delhi.
5. LAL, R.B. AND SEAL, G.C. (1944) General Health Survey of Singur Health Centre. Government of India Press.
6. GOVERNMENT OF INDIA, MINISTRY OF HEALTH AND FAMILY WELFARE (1983) Statement on National Health Policy. New Delhi.
7. MINISTRY OF HEALTH AND FAMILY WELFARE, DEPARTMENT OF FAMILY WELFARE (1983-84) Family Welfare Programme in India Year Book.
8. MINISTRY OF SOCIAL WELFARE, GOVERNMENT OF INDIA (1981) A Summary of the Report on Survey of Disabled Persons. New Delhi.
9. MUNICIPAL CORPORATION OF DELHI (SLUMS) (1977) Details of New Resettlement Scheme as on 31.7.1977. *
10. CABINET SECRETARIAT (1960,1961) National Sample Survey, Report on Morbidity No. 63, 49,
11. PLANNING COMMISSION (1983) Task Forces on Housing and Urban Development: Financing of Urban Development. New Delhi, p. 51-52.
12. REGISTRAR GENERAL, INDIA (1979) Survey on Infant and Child Mortality.
13. LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE (1985) Report of Evaluation and Planning Centre for Health Care: "Health and Urban Poor in Developing Countries". London.
14. ROSSI-ESPAGNET A. (1983) Primary Health Care in Context of Rapid Urbanisation. **Community Development Journal**, 18:p.104-109,
15. MINISTRY OF HEALTH AND FAMILY WELFARE (1982) Report of the Working Group on Reorganisation of Family Welfare and Primary Health Care Services in Urban Areas. New Delhi.
16. CHOWDHURY, A. & CHOWDHURY, K.C. (1962) Studies on Morbidity Pattern of Children in an Urban Community. **Indian Journal of Pediatrics**, 29.
17. WERLIN, HERBERT, H. (1983) The Urban Poor are Also Sick in "Innovations in the Planning, Management and Delivery of Health Care in Big Cities" **Worlds Hospitals**, XIX: 1&2, p. 55-59, April.

18. WORLD HEALTH ORGANISATION (1981) Informal Consultation on Primary Health Care in Urban Areas. Geneva, January.
19. WORLD HEALTH ORGANISATION (1984) Primary Health Care in Urban Areas: Reaching the Urban Poor in Developing Countries - A State - of-the-Art Report" by UNICEF AND WHO.
20. WORLD HEALTH ORGANISATION (1983) Joint UNICEF and WHO Meeting on Primary Health Care in Urban Areas, Geneva. July.
21. BHATNAGAR,S., DOSAJH, U. & KAPOOR, S.D. (1986) Development of Health Care Delivery Model in Urban Slums. New Delhi, National Institute of Health and Family Welfare.

FOUR DECADES OF SCHOOL HEALTH SERVICES IN INDEPENDENT INDIA

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ABSTRACT

This paper provides an overview of health services in this special sector of population. It broadly covers: (i) Child welfare through various plans; (ii) Planned efforts for school health programmes; (iii) Organised efforts by Central Government; (iv) Write up about task for school health services and mention about pilot project on school health services; and (v) State sector school health service programme.

Through implementing, 'border area approach', and by harnessing youth force and also by way of health coverage of non-formal centres, for out of school children, future programme are to be strengthened.

School health services exist primarily and directly to preserve and promote the health of students. These services are integral and inseparable components of a comprehensive school health programme. The main aim of these services are to promote better health and general well-being of students through improved health practices, early detection of defects and diseases early treatment and improved health knowledge. School health services should form part and parcel of the general health services of the country, so that through the services all children are covered for the proper development of their personalities and for their well-being.

OVERVIEW OF SCHOOL HEALTH SERVICES IN INDIA

The school health services in the form of medical examination of students was first started in 1909 in the city of Baroda, This was followed by a number of other States but in a sporadic manner and with varying degrees of priorities. The important committee made several recommendations before independence of the country. The Joint Committee of the Central Advisory Board of Education and Health dealt with this subject in detail in 1941. The Central Advisory Board of Education in 1944 brought out a report which recommended school health services as a separate service programme from existing provincial (State) health services under the administrative control of Education Department. The Health Survey and Development Committee of 1946 suggested that provision of medical care for school children should not be isolated from the general health services. It was also pointed out that the scheme of medical inspection was, mainly in the middle and high schools. Though many of provinces started the scheme but they abandoned it after a short while as a measure of economy.

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The Bhore Committee in 1946, however, strongly recommended the inclusion of school health services as one of the important component of Primary Health Centres for the students of rural areas. Despite these recommendations, some of the States continued medical examination of students in most per functionary manner while in most of the States it was either limited to only main headquarters in urban areas or were not provided at all.

PROGRESS IN POST INDEPENDENCE ERA

After the independence of the country, Shri Jawaharlal Nehru, the first Prime Minister of India laid tremendous emphasis on the child health. He considered health as a holistic concept which would mean to promote al round development of an individual. Nehruji stressed that the building of a nation depends on building men and women and the process of building these men and women depends considerably on that which is done to children. He, therefore, accorded high importance to the health while paying attention to the well-being and growth of the children. According to the basic habits formed in the early years and the way the minds of children were conditioned would play a vital role when they grow up. Nehruji liked to see children playful and happy. In fact he often told them to consider the whole country as a play field. For any child to be happy it is important that he is healthy. Health refers not only to the physical well-being but to the satisfactory social, emotional and cognitive growth as well.

Some of the basic needs of a child according to him which if fulfilled should be able to keep a child happy and healthy. These will include: (1) nutritious food; (2) comfortable home and clothing; (3) love and understanding for development of trust, friendliness and feeling of security; (4) recognition and appreciation of his duties without being over or under protected; and (5) scope for creative growth.

It was a view to achieve the above objectives that Jawaharlal Nehruji always pleased that child health and welfare scheme should be given the first priority in national development plan. He stated "If we do not look after the children today, we will be creating many more problems for ourselves in the future". He expressed his desire to undertake a. programme for children between 6-12 years of age which included a sound education, full scope for play, music and dance, health services and a free mid-day meal. It was due to Nehru's abiding intense love for children in whose eye he saw the future of India that many child welfare activities came into existence and already existing were strengthened, and thus an era of child health and welfare made a beginning.

CHILD WELFARE THROUGH PLANS

With the establishment of Planning Commission in 1950 under the Chairmanship of Pt. Nehru, the Five Year Plans were formulated. In the strategy to plan national development, he focussed his foremost interest in the young child. The First Five Year Plan recorded that nearly 40 per cent of the total deaths among the children were under ten years of age. Though the plan he greatly emphasised the training facility for all types of health personnel, establishment of primary health

centres and MCH centres for the promotion of child health. As may be seen, the second, third fourth and fifth plans laid greater stress on the child health services and their strengthening. This trend of laying special emphasis on the programmes for the welfare of child was continued in the Sixth and Seventh Plan as well.

PLANNED EFFORTS FOR SCHOOL HEALTH PROGRAMME

In India the planned efforts for strengthening school health programme started in 1957 with the setting up the child education - nutrition education committee and soon after through the WHO assisted school health education project of the Government of India. As a result the School Health Education Division was set up in the Central Health Education Bureau in 1958 to serve as a technical resource agency to both the Ministries of Health and Education.

Renuka Ray Committee: In 1960, the Government of India, Ministry of Health, set up a School Health Committee under the Chairmanship of Smt. Renuka Ray, the then Member of Parliament to assess the present standard of health and nutrition of school children and suggest ways and means of improving them. Considering the prevailing conditions at that time in the country, available resources, the Committee made important recommendations for drawing up school health programme, besides, other areas like school meal, pre-school child, school health education. training, studies and research, school environment and school health administration. The committee recommended that school health services should form part and parcel of the general health services of the community. It further said, that with adequate training in health education and school health services, it should be possible for the teacher to undertake certain functions related to school health services such as; (a) observation of students for defects and deviations from normal health; (b) screening them for height, weight, vision and hearing; (c) providing first-aid, (d) maintaining cumulative health cards and filling in relevant portions of the same; and (e) giving health education for prevention of preventable problems and development of healthful living practices among students. The committee observed that atleast in case of children in elementary classes, parents should also be present, at the time of medical examination of children.

AN ERA OF ORGANISED EFFORTS BY CENTRAL GOVERNMENT

It was in 1977 that a modest beginning was made to reach the benefit of school health service programme to the children studying in primary classes. A centrally sponsored National School Health Scheme was launched through selected PHCs located in remote, rural, backward, hilly and tribal areas with the objective of covering all the Primary Health Centres in the country in a phased manner. Comprehensive guidelines were drawn indicating independent and joint responsibilities of Central and State Government and also of State Health and Education Departments. In the first year, it was envisaged to cover 377 PHCs distributed overall the States and Union Territories. During the second year i.e. 1978-79, a provision for additional 409 PHCs was made by the scheme. The selection of these centres was done by the concerned State or Union Territory

Government based on the following criteria:

1. The Primary Health Centres selected should have the services of two or more, physicians, so that if one goes out for health examination to schools the normal work of the PHC did not suffer.
2. Priority in the selection of the PHCs to be given to remote tribal backward and hilly areas in the first instance.

The Central Government provided recurring and non-recurring grant-in-aid to the States/Union Territories at the following rates:

(a) **Non-Recurring:** At the rate of Rs.1500/- per PHC for purchase and supply of School Health Medical Examination kits to the PHCs selected by the States/Union Territories consisting the items approved under the scheme.

(b) **Recurring:** At the rate of Rs.1000/- per PHC per year for printing and supply of supporting health education material to PHCs for use with schools.

The prototype health education materials based on the feedback from the States/Union Territories regarding common health problems of the students was supplied by the Central Health Education Bureau, New Delhi. However, the States/Union Territories could also develop feed-based supportive health education materials. The cost of medicines training of personnel including teachers, printing of school health records and returns and transport was to be borne by the State/Union Territories Governments. The expenditure was to be shared both by health and education departments.

TRANSFER OF CENTRALLY SPONSORED SCHEME TO STATE SECTOR

In 1979 the National School Health Scheme was transferred along with few other Central sponsored Schemes to the State sector leaving only Union Territories with the Central Government. However, as part of observance of International Year of Child during 1979 the State Governments made provision in their budgetary allocation for expanding this programme. During Sixth Five Year Plan additional recurring grant was also provided to Union Territories to cover expenditure on Training of Teachers at the rate of Rs.500/- per PHC.

The scheme continued in operation in eight Union Territories except Delhi which had its own comprehensive school health scheme. The scheme in Union Territories continued upto 1984-85.

TASK FORCE ON SCHOOL HEALTH SERVICES

In 1981 the Government of India, Ministry of Health and Family Welfare set-up a Task Force to review the progress of School Health Service Programme being carried out in the various parts of the country and suggest measures as future operational modules. The report of the Task Force was submitted to the Ministry of Health and Family Welfare in January, 1982. It recommended that 'An Intensive Pilot Project on School Health Services' may be taken up and the feedback received

during the project period be used for formulating future policies in this field. It recommended that the project may be tried out on pilot basis in few selected primary health centres in the rural in about 25 districts. The selection of the districts was suggested to be made keeping in view the following conditions:

1. ICDS Scheme to be in operation;
2. Covered under Family Welfare Area Project;
3. Leprosy Hyper-Endemic Districts;
4. Integrated Tribal Development Project District and
5. Remote and Backward Areas.

INTENSIVE PILOT PROJECT ON SCHOOL HEALTH SERVICES

Hence, on the recommendations of the task force an Intensive Pilot Project on School Health Services was launched in 25 blocks of 17 States and three Union Territories in 1982 by the Ministry of Health and Family Welfare. The primary purpose of the project was to draw experience and develop module for specific area so that by applying the same programme may be extended to either blocks in a phased manner. The project was financially supported by SIDA (Swedish International Development Agency) for a period of two years. The scope of the project was confined to provide health services to the students in primary classes of rural backward and remote areas in the selected blocks. The total student population covered was 2.5 lakhs. One of the specific objectives of the project was related to the feedback pertaining to the adequacy of existing resources to provide one medical check up to all students of primary classes during a year and suitability of mechanism for ensuring referral, follow up, health education and monitoring etc. The significant feature of this project was that teachers were considered to be pivot of this programme and seven days teacher orientation training programme was organised for them. Besides, health services including medical checkup of the teachers themselves was a major component of this programme with a view to assume good health of the teachers and immediate treatment in case if any ailment so as to generate interests in them and set examples by promoting their own health.

Under this project adequate funds were provided for.

1. Printing of Cumulative Health Cards.
2. Printing of Health Education materials.
3. Training of Teachers.
4. Records and Returns.
5. Medicine and Correcting aids.
6. P.O.L.
7. School Medical Examination Kits for PHC doctors to talk to schools.
8. School Health Kits to be kept in the schools.

EXPANSION OF THE INTENSIVE PILOT PROJECT

In 1984-85, the Government of India Ministry of Health and Family Welfare extended this experimental project to cover additional 75 PHCs covering four new States making the total number of PHC to 100 and the financial assistance was provided by the Government of India as a Centrally Sponsored National Scheme Health Service Scheme for another five years.

Objectives: (1) To prepare younger generation for adopting healthy practice through health education, (2) To reduce morbidity and mortality among primary school children.

Major Component of the Scheme: (i) Observations and screening of students for defects and deviation from normal health, height, weight, vision, screening and treatment of minor ailments by teachers; (ii) regular annual medical examination of students and protection against preventable diseases by immunization; (iii) identification of sick children and referral to specialist for specialised medical care; (iv) maintenance of Cumulative Health Card for each child in the school; (v) training of teachers; (vi) health education of the students to imbibe healthy and desirable health practices.

The significant characteristics of this scheme were the intensive involvement of the teachers in (a) observing the defects and deviations among the students, taking height and weight measurements and other screening tests; (b) treatment of minor ailments of the students; and (c) need-based health education to develop healthy habits among the students.

To facilitate the teachers involvement in an effective manner the schools were provided with:

1. Weighing machines and measuring scales.
2. Elementary medicines for the treatment of minor ailments.
3. Manuals for teachers and health education materials.

Under this programme about ten lakhs primary school children were covered with about 10,000 schools and 29,000 teachers.

Evaluation of the Intensive Pilot Project and Extended Programme: The National Institute of Health and Family Welfare (NIHFW) was asked to conduct the evaluation study of this scheme to assess the effectiveness as against the laid objectives. The NIHFW submitted its evaluation report in January, 1988. The major findings of the report was that - despite various constraints faced by the State Governments, the medical examination coverage of the students varied from 45 to 100 per cent. In the smaller States the coverage was as high as 100 per cent while in the big cities with high proportion of enrolment the coverage was 40 to 60 per cent. The other major significant recommendation of the study was that a comprehensive school health service programme should be undertaken for the whole of the country

with intensive health education component and strong linkage for the referral system.

STATE SECTOR SCHOOL HEALTH SERVICE PROGRAMME

Besides, the various experimental project which had been undertaken by the Government of India as mentioned earlier, the State Governments continued with the school health service programme after the first centrally sponsored national school health scheme which was launched in 1977 and transferred to the State sector in 1979. The degree of implementation of this scheme in various States has been uneven. Some of the States like Andhra Pradesh, Kerala, Tamil Nadu, Sikkim, Maharashtra, Gujarat, Pondicherry, Goa, Delhi, Punjab and Haryana have been implemented the comprehensive school health service scheme, while the States like Bihar, Jammu & Kashmir, Rajasthan, Madhya Pradesh and Uttar Pradesh have not made much headway. Noteworthy schemes were being implemented by the States of Andhra Pradesh which a very comprehensive programme covering all school going students in the primary classes; Delhi is also having a comprehensive programme both for the primary children as well as for the senior secondary schools; Gujarat too has a comprehensive scheme and is the first State in the country which has appointed District Level School Health Inspectors for the implementation of the scheme; Kerala is another State which too have a comprehensive school health programme by appointing exclusive school health units and covering students upto high school level. While Pondicherry is pioneer for covering all the students from class I upto the college going students. The States of Tamil Nadu, Gujarat and Assam have also introduced mid-day meal programmes for the school going children.

Future Plans. In view of the commitment of the Government of India Health for All by 2000 AD the Prime Minister and the former Health Minister had shown keen interest and desire for the implementation of a comprehensive national school health service programme covering whole of the country. A proposal to this effect was developed and was also scheduled to be implemented during 1988. Unfortunately, on account of drought conditions in the country a big cut had to be made in the budget allocation, jeopardizing the implementation process. However, efforts are still continuing to augment this programme by way of undertaking pilot project till the Government is in position to allocate funds for a nationwide programme.

Following pilot project have been in the offing to be implemented on smaller scale to demonstrate the replicability of various type to modules, these include-

1. Border Area - Intensive Pilot Project on School Health Scheme.
2. Harnessing Youth Force for Promotion of School Health Programme in selected PHCs.
3. Health Coverage for Non-Formal Centres for the Health Workers (out of school children).

With the expansion of school health services programme and various project being launched for different sectors of child population both in and out of school system, with reinforcement evinced by keen interest of the present Prime Minister and Health Minister, the vision of Nehruji seems to be actualised.

Lkkjk'k

प्रस्तुत लेख में स्कूली बच्चों की जनसंख्या के विशेष संदर्भ में स्वास्थ्य सेवाओं संबंधी एक सिंहावलोकन प्रस्तुत किया गया है। मुख्यतः लेख में निम्नलिखित विषयों पर प्रकाश डाला गया है: 1— विभिन्न योजनाओं के माध्यम से शिशु कल्याण, 2— स्कूली स्वास्थ्य कार्यक्रम के लिए सुनियोजित प्रयास, 3— केन्द्रीय सरकार द्वारा संगठित प्रयास, 4— स्कूली स्वास्थ्य सेवाओं के बारे में आलेख तैयार करना तथा स्कूली स्वास्थ्य सेवाओं संबंधी प्रायोगिक परियोजना के बारे में उल्लेख करना, 5— स्टेट सेक्टर स्वास्थ्य सेवा कार्यक्रम।

सेवा संबंधी प्रमुख उपायों को धारण करके तथा युवा शक्ति को संगठित करके और अनौपचारिक केन्द्रों के माध्यम से स्वास्थ्य सेवाओं के कवरेज को उपलब्ध कराकर, स्कूल न जाने वाले बच्चों के लिए भावी स्वास्थ्य कार्यक्रम को सुदृढ़ किया जाना चाहिए।

REFERENCES

1. "EXPERT COMMITTEE ON SCHOOL HEALTH SERVICES" REPORT ON THE FIRST SESSION (1951) World Health Organisation Technical Report Series No. 30, WHO Geneva.
2. REPORT OF SCHOOL HEALTH COMMITTEE, PART I (1961) Ministry of Health, Government of India, F,oder, John. T. & Dalis, Gus T.
3. HEALTH INSTRUCTION - THEORY AND APPLICATION (1974) Lea and Febiget, Philadelphia. USA.
4. BHATIA, K.S. (1976) School Health Education, *Swasth Hind*.
5. SHAH, VIDYABEN (1987) Nehru Accorded First Priority to Child Health, *Swasth Hind*.

MEDICAL EDUCATION IN INDIA

Helen H. Simon*

ABSTRACT

The paper gives historical background of development of modern medical education in India, Dwelling on various aspects like medical manpower, policy for admission, medical college and hospital, examination system, continuing education research in medical colleges, university of health services, Medical and Health Education Commission, etc., these broad points and issues have been brought out: (i) In terms of its impact, there is a nation-wide consciousness for readjustment of medical education to meet present and future needs of the country (ii) Educationists are seriously siezed with the problems of introduction of new curricula and method of teaching, etc., and reorientation of new concepts for better utilisation of medical education in India. (Hi) The gaps in our country's medical education have become evident which are reflected through the declining quality and performance of medical graduates in India. (iv) Constant experimentation in medical education is necessary to find out the acceptable and viable solutions of problems related with quality and quantity of medical education in the country, (v) Research culture and tradition are required to be developed in all 106 medical colleges in India and basic gaps related to research tools, research procedures and approaches are required to be removed immediately, (vi) Continuing education should be an integral part of medical education with an inbuilt focus in training programme on national health priorities, (vii) Medical curriculum and trainingship pattern should emphasise more on practical application and disciplines like statistics, health economics, sociology and epidemiology should be further incorporated, (viii) Regional languages have a place in teaching but a very limited one, particularly when the medical education has to be seen to coexist with international frame and perspective.

HISTORICAL BACKGROUND OF DEVELOPMENT OF MODERN MEDICAL EDUCATION IN INDIA

In the history of mankind, India could proudly trace good public health practices and health services to 3000 B.C. In the Vedic period, the Ayurvedic system was extensively practiced and comprehensive concept of health and science of life was

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enunciated. Medical education was introduced in Taxila and Nalanda Universities. Later a medical centre of Kashi of Sushruta fame made a great name. With the changed political conditions, Indian Medical Education and medical services became decadent and Indian Universities vanished. With the conquest of India by Moghuls, Unani medicine was introduced in India, the East India Company brought Western medicine in India.

The first medical school of Allopathic medicine in India was established in Calcutta. Similar schools were started in Madras in 1835 and later other States like Bombay. These schools were recognised by Royal College of England since 1843. The General Medical Council (U.K.) was established by an Act of Parliament on August 2, 1858. Medical Education in India developed under the general supervision of the General Medical Council till India attained independence. The University degrees were registered with the General Medical Council in United Kingdom which implied that the standard of medical education had reached the minimum level obtained in Great Britain during that period. The first medical school which was started in 1822 at Calcutta was upgraded into a medical college in 1835. Bombay established a medical college in 1845 and Madras in 1850. It was not until 1906 that the need for more teaching of a university standard was recognised. The example of Lucknow in 1911 was followed by other centres. At first the colleges which were used almost entirely for training medical men for government services granted their own diplomas. But Calcutta became affiliated to an University in 1937 and was followed soon after by Madras and Bombay. The number of medical schools increased rapidly to 27 (1937-38) since 1835. In about a decade 20 colleges have come into being. This rapid increase has given rise to problems in regard to faculty, facilities and financial support. It was recognised for sometime past that it should be the aim to raise level of medical qualifications and to maintain an uniform standard of medical education throughout India. In 1938 a conference was held in New Delhi under the auspices of the Government of India. The whole question of school medical education was reviewed and the recommendation was made that medical school should be converted into colleges. In 1942 the Indian Medical Council passed a resolution that all medical schools should be abolished by 1947. By 1941-42 eight of then existing schools have either been abolished or converted into colleges. The Arya Medical School in Ludhiana was converted into college at a much later date (Narayana, 1959).

TECHNICAL CONTROL OF UNDERGRADUATE MEDICAL EDUCATION PROVINCIAL MEDICAL COUNCIL

The first Medical Council to be established in India was that of Bombay in 1912. Madras and Bengal followed in 1914. Other Councils were soon established, the number reaching a total of 13. The functions of the Medical Council includes, besides the maintenance of a register of qualified medical practitioners, the supervision of medical education, inspection of examinations, exercise of disciplinary control over medical practitioners and that of advising the local governments in regard to the recognition of the various medical qualifications.

The Medical Council of India: The Medical Council of India was constituted in 1933 with similar functions as the General Medical Council with the exception that the provincial councils maintained registers and took up disciplinary work. Its two fold responsibility was to maintain uniform minimum standards of university medical qualifications in India and to further the recognition of these qualifications outside the country. Till India attained independence, the Indian Medical Council was furnishing reports on individual medical colleges to the General Medical Council for recognition and the medical education pattern was largely that of Great Britain. The council has been invested with wide powers of requiring information regarding courses of study, examinations and of inspection of, examinations and can make representations to the Central Government in regard to the recognition of medical qualifications in order to indicate the minimum requirements which it considered necessary for securing the requisite knowledge and skill. For the practice of medicine the council drew up a series of recommendations on professional education. It must be remembered that the council has no power to lay down hard and fast rules for the curriculum and this really is an advantage, for it enables the various teaching bodies to make experiments, improvements and leads in the long run to progress.

MEDICAL EDUCATION IN INDIA AFTER INDEPENDENCE

During the Second World War, the Health Survey and Development Committee (1946) (Bhore Committee) also considered medical education and made recommendations for the training of basic doctors. The Committee recommended the introduction of social and preventive medicine into the curriculum of undergraduate medical and the reduction of course to 4½ years and addition of 1 year compulsory internship. Further the Bhore Committee laid the foundation for the development of a national system of health care based on primary health centres. It recommended the expansion of medical colleges, abolition of licentiate courses and up gradation of medical schools into medical colleges. It also had recommended the establishment of All India Institute of Medical Sciences and reviewed the health needs of the country as were perceived at that time. In health sector, the first two five year plans of our country between 1950 and 1960 mostly attempted to translate into action only those recommendations of the Bhore Committee which pertained to the development of primary health centres, expansion of medical colleges and the establishment of AIIMS (Bajaj, 1986).

The first World Medical Education Conference was held in London in 1953 and discussed the subjects of the aims of undergraduate medical education, the requirements of entry into the medical schools, aims and content of medical education and the place of social and preventive medicine in undergraduate curriculum. In 1955, a Conference on Medical Education was convened by Government of India under the president ship of late Dr. B.C. Roy. The Conference considered premedical education, entrance requirements, the selection of students, the curriculum norms, subjects requiring special emphasis in the curriculum, e.g., preventive and social medicine, pediatrics, psychological medicine, internship libraries and museums, history of medicine and medical ethics, methods of teaching, examination or assessment, selection of teachers, elective, etc.

In 1956 the new Act of Medical Council of India has provided for the inclusion of membership of the Council to licentiates, the formation of All India Register and the inclusion of postgraduate education under the purview of the Medical Council of India. Later several amendments to the Act of 1956 have been introduced. The Council has also been authorised to prescribe the standards of postgraduate medical education for the guidance of universities. For this purpose the Central Government would constitute from amongst the members of the Council, a postgraduate medical education committee.

The Medical Council of India is empowered under the Act of Parliament to maintain the minimum uniform standards of medical education for the whole country. The standards vary from college to college and university to university, under the provisions of the Indian Medical Council Act. The Council is charged with the responsibility of laying down minimum standard of medical education and of recognition of medical qualifications in the States and countries outside India. The Council has powers to require information from time to time, as to the courses of studies and examinations to be undergone and qualifications conferred and generally as to the requisites for obtaining such qualification and also to appoint inspectors or visitors to inspect medical colleges, hospitals and institutions, where medical education is imparted or to send inspectors or visitors to attend the examinations held by any University or medical institution for the purpose of recommending to the Central Government recognition of medical qualifications granted by that University or medical institution. The inspectors would report to the Council on the adequacy of the standards of medical education including staff, equipments, accommodation, training and other facilities prescribed for giving medical education or on the sufficiency of every examination which they attend. The postgraduate Medical Education Committee and the Council advise the Universities in the matter of securing uniform standards for postgraduate teachers. The Medical Council of India in 1964 effected some major changes in the undergraduate curricula and courses based on the report of the Health Survey and Planning Committee which was constituted in 1959 under the chairmanship of Sir Lakshmanaswamy Mudaliar with the objective that its report could be used for planning in relation to health sector for the Third Five Year Plan. Gradually a global concept of a systems approach to health planning and importance of the sub-systems of Health Manpower Planning is evolved following Kartar Singh Committee report of 1974 and Srivastava Committee report of 1975. While Kartar Singh Committee made major recommendations in relation to planning, production and management of allied health professionals like multipurpose workers, auxiliary nurse midwives health assistants and other sub-categories, the Srivastava Committee laid emphasis on the linkage of medical education and support manpower within the broad objectives of a national health policy and a major focus on community involvement and its participation in health efforts. Reorientation of medical education was launched in 1977 following the recommendations of the Srivastava Committee (1975) as a centrally sponsored scheme with the objective of involving the various medical colleges in the country.- in the direct delivery of health care services to the rural and semi-rural population under this scheme, each of the

106 medical colleges in the country is to accept, in the first instance, the total responsibility for promotive, preventive and curative health services in three Community Development Blocks in the districts in which the institution is situated. 318 Mobile Clinics at the rate of 3 per college have been provided to the medical colleges to render quality services nearest to the rural population. The Government of India has released a grant of Rs.16.04 lakhs to each medical college for implementation of the scheme.

The main objectives of the mobile clinic services under the reorientation of medical education scheme are:

1. To expose the medical faculty, residents, interns and the students to the rural community.
2. To train the students, interns and residents in 'Community Organisation' and 'Community Participation'.
3. To render comprehensive health care services to the villages in collaboration with the local primary health centres. The reorientation of medical education scheme is a 50:50 centrally sponsored scheme and the responsibility for implementation of the scheme rests entirely with the concerned State Government and Union Territory Administration.

The Government of India formulated a set up guidelines that could render it possible for the State Governments/Union Territory Administrations concerned to evolve a pragmatic and viable shape to the implementation process of this scheme in the various medical colleges functioning under their control. These guidelines have been approved by the Planning Commission as well as by Finance Division of the Ministry of Health and Family Welfare. The scheme is however has not achieved the desired result and phase II was not made operational. Recently the Medical Education Review Committee (1986) made some important recommendations which include:

1. National Entrance Examination
2. The posting of interns for 6 months in peripheral hospital.
3. Adoption of institutional goals separately for undergraduate and postgraduate course to train physicians to fit into different levels of the health care system and to be able to resolve the health problems of the community.

The salient features of ROME scheme and some of these recommendations have been embodied in the recommendations of the Medical Council of India on undergraduate medical curriculum which makes it mandatory for each medical college to adhere to them.

MEDICAL MANPOWER

The post-independence period may be divided into four distinct phases 1947-65, 1965-75:1975-85 and the present period which may lead into the 21st century. This division is based on the fact that the policies in the field of health in these

different periods are mainly based on the recommendations of different health survey and planning committees.

During the period 1947-65, there was almost 500 per cent increase in the number of medical institutions from 17 in 1947 to 87 in 1965, with a corresponding increase in the annual turn out of medical graduates (Table 1).

TABLE 1
MEDICAL EDUCATION IN INDIA

Period	No. of Medical Colleges	Annual Turnout
1947-1965	17-87	1400-5387
1965-1975	87-105	5387-11911
1975-1985	105-106	11911-12278

There has been an additional 15-20 medical colleges being managed privately in different States and unrecognised by the Medical Council of India (1986). This period also had a carryover effect from the pre-independence days in the sense that most of the medical teachers at that time were those who had received their postgraduate training in Western hemisphere especially in the United Kingdom, and therefore were most concerned about the maintenance of standards of medical education which would meet with international acceptance in real terms, the academic standards were being judged with an international yardstick, and the so-called academic excellence meant in reality the approval of the General Medical Council of Great Britain. So, the preoccupation with academic excellence took precedence over the prime need of national relevance. At the end of this period, therefore, there was an increasing awareness that the medical graduates who were products of the then prevailing system of medical education in the country were not willing to provide a uniform geographical coverage in the country and that the maldistribution of medical and health care, if anything, was increasing, thus creating a wide hiatus between the 'haves' in the cities and towns from the 'have-nots' in the remote rural areas.

Therefore, a need to reform and reorientation in the system of medical education was acutely felt almost within a decade of independence as indicated in the deliberations of the First Medical Education Conference in 1956. This was reflected in the record phase from 1965-75. However, there was still no major effort to link medical education with the sub-systems of health manpower planning and to make a holistic approach in this direction, within the overall policy objectives of a national health system. The period two 1965-75, continued with the emphasis on increased production of medical graduates. This increase was not as much due to the opening of new medical colleges, as to an increased turnout from the existing ones. Thus although the number of medical institutions only increased by 20 per

cent, the annual turnout of medical graduates doubled itself during this period, due to an increase in the number of admissions. At the end of 1975, the annual production of medical graduates was almost 12,000. Two important landmarks characterised the far end of this period. Kartar Singh Committee report of 1974 and Shrivastava Committee report of 1975. At the end of period two, there was an increasing awareness of health manpower planning in relation to all categories of health manpower, and not necessarily the earlier emphasis on the increase in the number of doctors and more importantly an increasing recognition of the role of community as active participants in health system planning rather than passive receptacles of medical care.

The period three 1975-85, started with great hope and expectations. This period also saw the Alma Ata Declaration of 1977, the increasing awareness of primary health care, a major focus on community participation and involvement all culminating into the strategy of Health for All by Year 2000. Undoubtedly, there has been an increasing awareness of the fact that the three components of manpower development process, namely planning, production, and management should constitute sub-systems which should not only integrate with each other, but should also have a functional linkage with the health system development (Fig. 1).

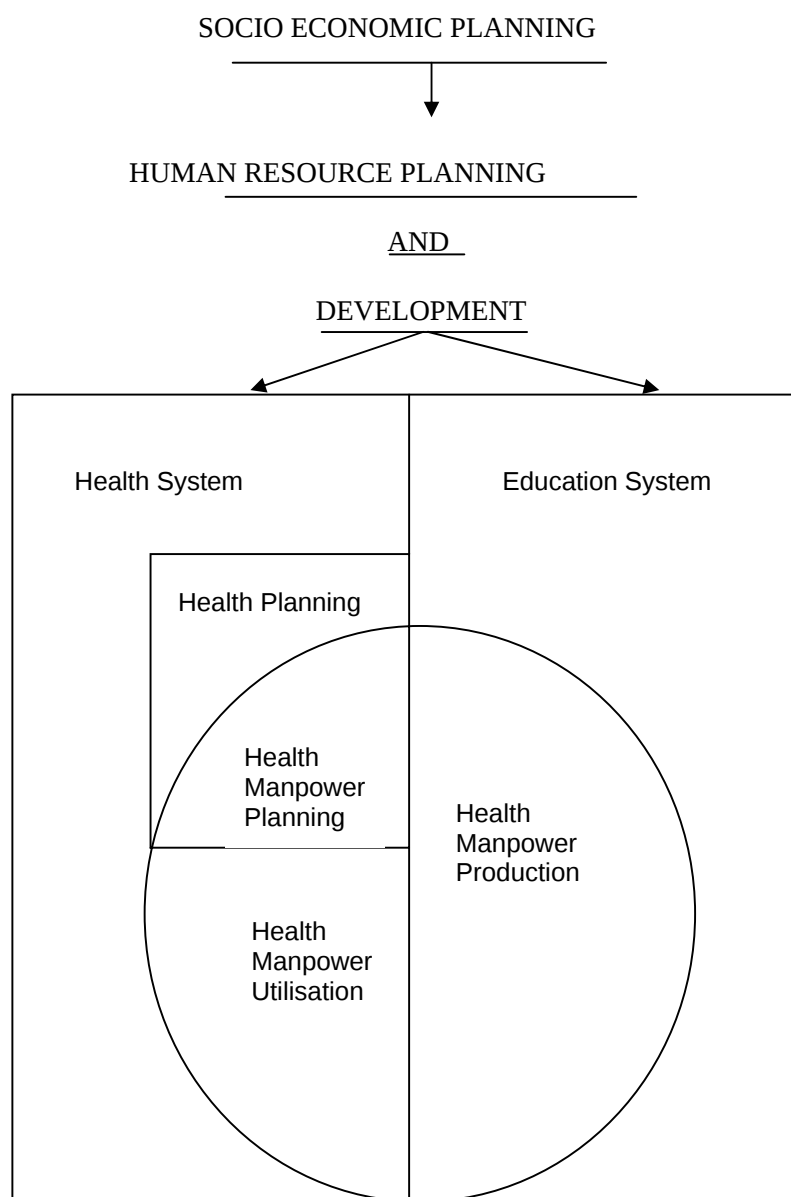
Essentially the planning subsystem indicates the qualitative and quantitative requirement for manpower, the production subsystem aims at the training and education of various categories and types of required personnel with a major focus on the requisite numbers and the management subsystem ensures of those trained with an essential focus on the monitoring and evaluation so that appropriate feedback is provided to ensure necessary mid course corrections and adjustments in relation to the social needs and social dynamics which constitute a key factor in the development of an effective health system.

According to the latest figures available, there are approximately 3,34,500 doctors as of today. It is, therefore, obvious that the requisite number of doctors needed by the year 2000 A.D. which is 3,16,000 is already in surplus. There are a large number of unemployed medical graduates in good number of States and medical educationists, health planners and administrators should give a serious thought to this problem to decide whether it is worthwhile to produce doctors in thousands in future.

The apparent shortage of medical manpower in the country is due to the maldistribution. Eighty per cent of medical graduates practice medicine in urban areas where 24 per cent of India's populations live and only 20 per cent of them practice in rural areas where 76 per cent of the populations live. The young graduates do not wish to practice medicine in rural areas because they do not find the conditions in villages suited for their way of life and also find that the dispensaries, are ill-equipped, ill-staffed and ill-financed. Different approaches to this problem should be evaluated to make medical education more useful to the country.

PROBLEMS OF MEDICAL EDUCATION AND THEIR ASSESSMENT WITH SUGGESTED REMEDIAL MEASURES

Medical education in India today represents a colossal problem with an obvious impact of nationwide consciousness for readjustment to the present and future



(Mudaliar Oration, 1980)

FIG. 1: HUMAN RESOURCE PLANNING AND DEVELOPMENT
(Modified from WHO Tech. Rep. SER.)

needs of the country. There has been a great stress on the requirement to the number of admissions and acceleration of medical education. The problems of medical education have to be considered in relation to the national needs and health requirements of our society and the ways in which they can be met. No pattern of any advanced country can be simply copied down successfully in a developing country like ours.

Today, our medical education pattern lacks flexibility. We are still functioning within a very rigid framework laid down by our forefathers in medicine. Unless some flexibility is introduced, experimentation is not possible and it will be difficult to prepare the type of doctors required to meet the urgent demands of the society. It is important for both faculty members and students to realise that the medical science is essentially a social science and that the aims of education should keep in view the current social setting as well as requirements of the likely future social structures of a developing country.

In the present system of medical education in majority of medical colleges, the role 'model' for the students in the clinician who teaches internal medicine and any community centred objective teaching or training is under-rated by the student as of low prestige value and is readily rejected. Thus starts a conflict between individual desires and social goals, sophisticated curative care oriented internal medicine and priority oriented community medicine - a conflict between individual desires and the community consideration to produce a basic doctor for the health centre. This conflict of ideas and aspirations is the most singular feature of the present quest to produce a doctor who could practise clinical and community medicine with equal skill. Our faculty members are as guilty in preaching a philosophy of the practice of medicine which comes into conflict with aspirations of our society.

PROCEDURE AND POLICY OF MEDICAL ADMISSIONS

The pre-requisite for selection of students to medical admission is 10+2 or after higher secondary which is now equal to 12th standard and a student raw from the school straight enters into the portals of medical college. The switch over from one system to another has caused grave problems.

Premedical Education: So far the emphasis in the premedical courses has been mainly for providing the students sufficient knowledge in physics chemistry and biology. The type of general education also requires reorientation to make medical education community oriented according to the special health needs of our country and should include training in various aspects of social sciences, humanity and study of behavioural sciences. In order to have premedical training more relevant to medical education, suggestions often have been made that premedical education should also be imparted in the medical colleges. But this may not be ideal as exposure of students to an interaction between the different science disciplines and other disciplines of humanity may be lacking in medical colleges. Therefore, it is necessary to improve the general education while it is still imparted in the universities rather than transfer it to the medical campus. At present educational content of premedical courses do not have enough emphasis on sociology.

psychology, humanities, which are so important to prepare them for medical education. Because only a fraction of the students who opt for premedical course get selected for admission to medical colleges, it was suggested that to obviate this the selection of students for medical college can be made before the premedical stage of their training and then this premedical training while still being imparted in the universities, can have better oriented students for medical education.

Age for Admission to Medical Colleges: The minimum age of admission to a medical college at present is 17 plus on 1st October. Mudaliar Committee in its recommendation had suggested the minimum age for admission 18 plus. In developed countries a candidate ordinarily joins a medical college at the age of 20 plus. There have been suggestions to raise the minimum age of admission so that the candidate attains more maturity and gets more time to study the additional subjects which have relevance on medical education, in developing so much required doctor-patient relationship. This question cannot be considered in isolation because in India most of the doctors seek Government employment and with the existing age of retirement, likely to be deprived of full retirement benefits.

Students Selection: There is a wide disparity between the various methods employed for the selection of the students in many institutions. This is achieved by holding an admission test and selecting students in open competition. Here too, the subjects prescribed for the test differ slightly from place to place but by and large, students are examined in physics, chemistry and biology. Another procedure adopted to select students is on the basis of the marks obtained at the premedical examination. But the standards of these examinations vary significantly, and the results do not reflect the actual intellectual level and competency of the candidate because they are liable to be influenced by personal and political factors. At most of the institutions there is no test to judge the aptitude of the candidates. So it is generally felt that the existing methods of selection are defective placing too much emphasis on scholastic qualifications disregarding completely the candidates personality as a contributing factor to his career as a doctor. Some kind of competitive assessment to be carried out jointly by number of medical colleges or ideally on all India basis for determination of the merit of the students. It is equally important that some assessment is also made of the aptitude and motivation of the candidates for undergoing medical education. The methods of selection of students may be primary screening than a test and final selection after an interview and personal assessment of standardised evaluation factors like past academic record, position in the competitive examinations, physical fitness, motivation, aptitude, personality and psychological tests giving the candidates due credit for participation in sports, NCC, and other extracurricular activities. All methods of assessment, including computer based objective multiple choice questions and answers require a basic core of honesty and integrity.

Reservation of Seats in Medical Colleges; Reservation of seats in medical colleges for SC/ST candidates should not be at the cost of standards of medical education. The Medical Council of India has prescribed a relaxation of 10 per cent in the minimum pass percentage of 50 per cent at the qualifying and/or competitive

test so that the students attain certain level of proficiency in the premedical course. It is unfortunate that these mandatory recommendations of the Council are not being followed in some States which not only affect the standards of medical education but also leads to repeated failures of the reserved category of students in the examinations leading to many administrative problems. Most of the States are indulging in other types of reservations other than the statutory reservations, thus encouraging back door entry to the medical colleges which is surely not on merit. It is not only the reservation policy but worse is the nominations by State Governments to other State medical colleges. There have been many cases when a candidate has not been able to get admission are, though challenged in the Court of Law but the litigation drags on so much that before justice could be done the candidate becomes a doctor. The Medical Council of India is against any reservation other than the statutory reservation and the reservation should not go as far as indefinite time. A time has come now when we must make a decision as to how long the statutory rules will go on.

PRIVATE CAPITATION MEDICAL COLLEGES

The criteria for admissions in these medical colleges is mainly paying capacity of the capitation fee which they charge, with the result a large number of foreign students who cannot get admission in their own countries and the children of affluent parents find their way into these medical colleges. These capitation colleges not only run on the money they collect but have even become a source of income leading to commercialisation of medical education. More and more of these medical colleges are being started every year. In most of these colleges the fate of teachers depends on the management, the student take studies very lightly and even try to influence to pass the examinations through malpractices. It is therefore, necessary that the Medical Council of India should be empowered to assess the feasibility of any new medical college before it is started.

MEDICAL COLLEGES AND HOSPITALS

Mudaliar Committee had recommended one medical college for at least 5 million population and that the number of admissions to medical colleges should not ordinarily exceed 100 in order to give maximum personal attention to individual students. Over enthusiastic politicians have not only started new medical colleges but have also increased the number of admissions in the existing colleges without providing for appropriate physical facilities. So the efficient function of these institutions will cease with increased number of admissions because staff is a difficult and rare commodity to get especially efficient staff. Class room discipline cannot be maintained by too young and inadequately experienced staff. Same is the situation in hospitals where crowding is even much more. This calls for a serious review of the existing medical colleges to decide the ideal/desirable number of admissions.

MEDIUM OF INSTRUCTION

The medium of instruction in medical colleges must be English so as to

participate in the progress of teaching of advances of medicine all over the world. A large number of textbooks, journals and books of reference are available in English and it may not be feasible or possible to translate them all into the regional languages. If nationalism and sciences are to co-exist and standards not to deteriorate or fall, the regional languages have a very limited place as English is one of the major accepted international languages.

MEDICAL CURRICULUM AND TRAINING PATTERN

At present, the existing curriculum of medical colleges, being the heritage of the British system, has no practical application. Our knowledge of the science of medicine is daily increasing. Some of the added disciplines include genetics, microbiology, physiology, epidemiology, radiology, statistics and sociology. Thus curricula are expanded, packed and repacked many times.

The pattern of training of the doctors is set up into three periods of 18 months each for preclinical, para clinical and clinical subjects, the ward attendance being arranged concurrently with the training in para clinical and clinical subjects. But the quantum of material to be covered up is continuously on the increase. The textbooks of these subjects have doubled and even trebled in size and in an attempt to cover this material attention is diverted from ward work, which has suffered. A post-examination internship is therefore created to facilitate bed-side clinical work, without any diversion of attention to requirements for passing any examination. In consideration of widening curriculum with emphasis on bio-chemical aspects the graduate qualification in science has been stipulated as a requisite for entrance in some advanced areas.

Certain practical steps may be devised to reduce the load of studies and ease the educational process. This can be achieved by the selection and preparation of textbooks in various subjects, suitable for our needs with careful shifting of the materials for inclusion in such textbooks. Thus in the teaching of anatomy functional aspects may find preference over elaborate details of structure, and the subject may be taught with emphasis on its usefulness in the training in the clinical subjects. The same objectives may be kept in the subject of physiology in the inclusion of bio-chemical advances. The present day teaching of pharmacology aims at including a great deal of theoretical material, which could be conveniently abridged. On the other hand, the practice and the experience of the art of preparing mixtures, powders and ointments is losing place to animal experiments of pharmacological actions, leading in the end to the use of single drug preparation for relief at times of single symptom. Perhaps emphasis in pharmacy may not be necessary now in view of the growth of the pharmaceutical industry in India with availability of pre-compounded drug preparations. But training in clinical pharmacology may be preferable to animal experiments. This position may be reviewed for adjustments in the training programme. With the progress in the twin subjects of pathology and biochemistry we have a number of diagnostic tests, on the increase almost continuously. This has led to its impact on the training in clinical subjects towards inclusion of sophisticated laboratory aids in an ever widening way in contrast to the

old time bed-side training. The training programmes on the clinical bed-sides today, emphasise the importance of these ancillary aids, diverting attention from the intensive bed-side training of previous days in pursuit of diagnosis and treatment.

The concept of preventive and social medicine has replaced the previous subject Hygiene and this has been a very welcome change, as it emphasises the importance of prevention of diseases and attainment of positive health over treatment of sickness, as an objective of medical education. Thus a practitioner of medicine today has to learn and practice many more things compared to his predecessor 40 years ago, in respect of prophylactic and preventive inoculation measures and techniques. The knowledge and experience of accepted and suitable family planning measures and maternal child health care is also must today. More importance may be given to training in these subjects than what it is at present. And it is desirable that this training may extend longer than at present and if possible throughout the medical course, with selection of situations suitable to the various stages of the educational process.

The needs of the community must be carried more effectively to the students. This does not happen in the setting of a hospital in a large town. The students must have opportunities for more field work in the course of their training in preventive and social medicine.

In the clinical training of the undergraduates, beside clinical work must offer more opportunities for undertaking responsibility of clinical care. The large numbers of admissions defeat this purpose. But ways to fulfill these requirements must be found. The internship programme should be able to serve this purpose. Students should have beds allotted to them with responsibility of care delegated to some extent. These internship programmes are the most neglected of training programmes today. Check on attendance and work during this period is very casual and a complete overhaul of this period of internship is overdue.

In the clinical training of the undergraduates today, it is felt that too much emphasis has been given to laboratory and the ancillary aids like X-rays. E.C.G. etc. in diagnosis. While this may have its advantage, it appears to lead to a state of dependence on these aids. And without these aids, there is embarrassment for a fresh doctor in accepting responsibility. It is on this account that the young graduate is not ready mentally to start practice, in contrast to his predecessor 40 years ago, who eagerly entered practice with confidence. This state is all the more regrettable as many of the laboratory and ancillary aids to which students are introduced are available only at few places and then, with considerable difficulty. It is, therefore suggested that this aspect of the availability of these aids may be kept in view and clear-cut instruction may be given to the management of the problem on hand, in the absence of these aids.

The doctor trained today differs from his predecessor in one more practical detail. Previously, he prescribed to his patients a mixture combining drugs with antipyretic, analgesic, diuretic, antispasmodic and similar actions as indicated, cognisant of their compatibility or otherwise. Today, he/she prescribes a number of

tablets, each for relief of a single symptom or situation. This is so because of his training in pharmacology which deals with active principles and their actions. But in the process the patient often feels embarrassed. The cost of such therapy also rises, consideration which needs thought. Paracetamol is dispensed instead of a few grains of cheap aspirin. The previous milk of magnesia or mistura alba is now substituted with expensive items like pursenid or Dulcolax to mention only a few as instances. This is also partly due to the influence of pharmaceutical houses, whose products are backed by research grants for trials in departments of teaching colleges. But all this leads to a rising cost of treatment to patients, many of whom therefore avoid such treatment, if they can. Excepting a small number of the economically well placed people, others are at a disadvantage and are kept away from a very much needed aid. Some thinking from these points of view is necessary in the organisation of present day training programmes. Perhaps the Government could help by issuing certain listed drugs or preparations with statutory legislation for sale at low fixed prices.

A large proportion of our common population were, until recently, conversant with many home remedies for minor ailments like dyspepsia, flatulence, constipation, diarrhoea, intestinal colic, cough etc. The younger, independent and separate family units of today have lost this useful knowledge. Hence the situation mentioned above needs more emphasis in training programmes of the young doctor, who should learn to make treatment easier and acceptable to the patient than to himself.

Traditionally first one and half years of preclinical education is devoted for basic sciences when the student is kept away from any contact with patients. Whom he is expected to understand and treat later. Paraclinical years devoted to pathology and pharmacology and clinical period is devoted to clinical medicine, surgery, obstetric and gynaecology, etc. New entrants to medical college are initiated to the departments of anatomy and physiology in an atmosphere of dead bodies, dissected parts, macerated bones, the frogs and dogs. It is worthwhile experimenting initiating new entrants to community, departments of medicine and surgery instead of basic sciences and let the first impact on the mind of the young student be of a living human being, with his social, economic and family conflicts, this will have the advantage of avoiding the exposure of young minds to the sight of a dead body at their first introduction. It will also achieve the object of making young aspirants to medical profession aware of the needs of patients they are ultimately required to treat. This awareness makes the study of anatomy and physiology more useful. This hypothesis can be tested by undertaking it as an experiment. In our country where the traditional methods of medical teaching have simply been copied regardless of local circumstances, the result understandably have been catastrophic. Each of the discipline tend to collect a department in a medical college which tends to extract what it can in hours from the curriculum. In this way a subject with only certain aspect applicable to medicine comes to be taught as a whole with all the irrelevance. So in our present system of medical education, the curriculum needs pruning of much of obsolete and unnecessary debris. The problem is how to meet the demands to produce more physicians without allowing the scientific

content of the curricula to deteriorate. To achieve this objective not only the quality and content of the curricula need critical scrutiny but our concept of teaching methods, both theoretical and laboratory teaching needs complete overhauling. The present medical curriculum of set lectures and demonstrations will have to be replaced to a large extent, by encouraging self-education, e.g., small group projects, conferences, seminars, tutorials etc. with use of modern audio-visual aids in which the student is the major participant and his opinion receives attention. This would help him to develop considerable independence of thought, habit of logical thinking, sense of responsibility and initiative backed by a sound knowledge of the subject matter involved. Provision of elective time in the curriculum of a medical student as well as during his internship period may be usefully considered in the reorganised pattern of the curriculum. It is desirable that the student should get time to look around on his own to read medical journals, to meet patients informally and adjudge his practical and theoretical training.

A positive approach to make the education of our doctors need-based is to directly involve the student in community health programme with the hope that this would provide him with the necessary motivation to serve the rural community. The doctor must learn to live with the society. The scope of clinical teaching should be enlarged from the wards and outpatient departments of teaching hospitals to peripheral services, utilising district hospitals and primary health centres. This would only be feasible if the staff at the peripheral services is considered an integral part of teaching hospital. Guilbert (1987) of Educational Planning, Methodology and Evaluation of the Division of Health Manpower Development at W.H.O. in Geneva, recommends problem based and problem solving approach which not only will ensure relevant objectives but also ensure that the active learning of the students correspond closely to the objectives set. This approach will satisfy two basic principles in the education of health personnel: relevance and active learning. The educational concepts underlying these principles are (problem based learning and problem solving) to emphasize active learning and community based education to ensure relevance. Problem based learning has been successfully used in some countries as an educational approach in a number of schools, some of which belong to the Network of Community Oriented Educational Institutions for Health Sciences. Problem based learning enables students to learn how to solve priority health problems by first understanding the scientific principles necessary to the solution of the problem. Beginning with a health problem, a small group of students (five or six) first discuss the case within the limits of their capability, under the guidance of a faculty member. They identify the underlying principles they need to solve the problem, using textbooks, journals, standard references and resource persons. Recently a more recent educational approach named community based education is increasingly used abroad. It exposes students throughout their studies, from the beginning, to a balanced variety of health care settings, ranging from the community the primary, secondary, and tertiary health care services. In these settings, the students are led to identify the priority health problems that form the basis for the problem based learning process, whenever students, with the guidance and supervision of their teachers, identify a priority health problem. The next step is to

apply the problem based learning process to determine what must be done by health personnel in the health service system to deal with the problem. If the concept of problem based learning is applied, students will be able to play an active role in the learning process by defining the educational objectives and learning issues (contributory objectives) that correspond to their future professional role, with its inherent functions, activities and tasks. If the concept of community based education is applied, students in the course of their studies will be able to identify health problems that are similar to the problems they will meet later in practice. They will also acquire the motivation and ability to learn how to learn and therefore to continue to learn after they graduate. In the pursuit to produce a basic doctor to cater to the health needs of the community, the above two approaches should be adopted in some of the medical colleges, (if possible in private colleges) which can be made autonomous to run two tracks - one with traditional curriculum and the other with problem oriented or community based curriculum on an experimental basis.

TEACHERS

The quality of faculty and its proportion to the size of the student body are far more important than facilities and finances. There is overall shortage of faculty especially of senior and experienced teachers. Majority are junior teachers with postgraduate qualification with less than five years teaching experience. Among the means of strengthening the faculty the most important is a programme of fellowships on a sufficient and at a pace adequate to met the requirements of teachers in the rapidly expanding field of medical education. A separate cadre of teachers and full time teaching units with increased scales of pay to make them attractive should be established. A teacher student ratio of 1.5 and a similar ratio of student to hospital beds for clinical instruction should be attained. Postgraduate medical education of specialists, teachers and research workers as well as practitioners should be developed, adequately in the country.

At present, most of the teachers lack conceptually their responsibility towards students and are hard-put to facilitate learning and to encourage students to be socially conscious health workers. In many medical colleges members of teaching staff do not regard themselves primarily as teachers, often they assume the role chiefly of physicians or surgeons or research workers. Because for them, it is these roles which give prestige in the society and the academic distinction in the institution. However, it should be remembered that medical college primarily exists for the purpose of providing students systematic organised educational experience. Teachers should realise that the basic needs must be identified before health care needs are taught to students. They should not lay over emphasis of medical sciences in the treatment of a disease leading to a total neglect in the education and meaning of health care. This is particularly true of so-called centres of excellence where absence of generalists and primary care physicians on the teaching staff and over exposure to specialists has become a constant feature resulting in neglect of primary health care so much so that necessary role models which have been clearly outlined in national policies are not given proper emphasis. There is lack of organised process of medical education and medical college, contact for teachers

to the problems in remote and undeserved areas which in itself hinders appropriate distribution of doctors. Finally, there is a failure to place adequate emphasis on preventive medicine, community medicine, tropical diseases, neonatology, paediatrics, national programmes like maternal and child health and family welfare. EPI, malaria eradication, leprosy control, tuberculosis control, nutrition, the role of community volunteers and the role of other paramedical personnel like multipurpose workers auxiliary nurse midwives and other members of medical and paramedical profession and the important part they play in delivery of health care services at the periphery and come in intimate contact with the common health and medical problems of the population in marked contrast to those diseases requiring secondary or even tertiary care. To introduce problem orientated or community based education the teachers should be first trained to change their traditional pattern of teaching and to acquire skills to supportively guide and supervise the student in his attempts to self-education in finding the problems in the community and solving them himself.

A teacher has a great role to play in the metamorphosis of a young man, into a useful and successful clinician. The key to transplant right motives in the young medical student who are initially impressionable and idealistic and therefore receptive is, the teachers who have to set examples before the students. This is necessary for all teachers, especially so, for clinical teachers as they are in the privileged position of 'serving suffering humanity'.

EXAMINATION SYSTEM

The present system of examining a candidate at the end of full course by a university examination is more a test of his capacity to memorise the lessons rather than assessment of his educational achievements. Besides the high failure rate results in waste of time, energy and expenditure on the part of medical student as well as the institutions. Present examination system is the most important deterrent factor which makes or mars the student's career during his studies in the medical college. Main purpose of holding periodical examination is to stimulate the student to make further study. It also helps to assess and grade his achievements and also to know his weakness so that he may be helped to learn more of those topics. In order to make these tests completely objective and free from personal bias of the teachers, many methods or combination of methods have been devised like easy type questions, multiple choice questions oral and clinical examinations, practical tests etc. Day-to-day assessment with the combination of all these methods may be the final answer to correctly assess the achievements of the students. The system of adequate assessment on semester basis if properly carried out may be helpful. Emphasis has to be laid on teaching rather than examination. Examinations are of little value if proper attention has not been paid to training and teaching of all aspects of medicine.

POST-EXAMINATION INTERNSHIP TRAINING

Internship is one of the weakest links of the teaching programme and there is an

urgent need for reshaping and planning in this sphere of education. Internship is a twenty four hours inservice training programme and unless the medical graduates are residents at the site of their work, it will not be possible for them to get the maximum advantage of this scheme. Success of the implementation of their internship training programme will give us the rewards in the production of the need based doctors and meeting with our national needs. During the six months of their stay in the primary health centre or in the rural setting, opportunities can be given for reorientation in rural medical care and practice and also implementation of the principles of social and preventive medicine and social aspects of medical practice. The interns should have the responsibility both at sub-centres, at the approved hospitals, primary health centres or at the teaching centres.

POSTGRADUATE MEDICAL EDUCATION

Many medical colleges have started postgraduate courses even when they are ill-equipped to impart undergraduate training. There is unhealthy tendency on the part of universities and medical colleges to have a number of postgraduate courses without ensuring the minimum standards. Before a new medical college is organised to undertake undergraduate education effectively, postgraduate courses are started in different specialities leading to difficulty and awkward academic situation. Responsibility for this rests squarely on the shoulders of the universities, administrators and leaders in medical education who must appreciate their responsibility for the quality of the training. At present certain standards of their training are in conformity certainly with British and to a certain extent with U.S. standards. This has, of course, improved the market prospects of these doctors. They have been able to compete well with their counterparts in those countries and their services are in demand. But it is very necessary to involve postgraduate students towards the problems of social and preventive medicine and community medical care. There is undue stress and dependence on various instruments of precision and diagnostic aids. Consequently the postgraduate students are not able to develop adequately their clinical faculties and perception which are so necessary for practice in most of the regions where sophisticated aids are not readily available. They find themselves inadequately trained to discharge their responsibilities to the community.

CONTINUING MEDICAL EDUCATION

Rapid development in new medical knowledge and acceleration changes in the methods of delivery in health care have been continuing education an issue of critical importance. An academic and educational activity primarily designed to make a qualified doctor engaged himself in keeping abreast of advances particularly in the field of his/her interest is termed as continuing education. The present day teaching programme has become stereotyped and drab with the teacher also not taking much interest to improve and update his knowledge. There is yet no teacher training programme in any medical college in India except in one or two places. So here in India a beginning has to be made somewhere in between and go on improving upon the same by experience. Though continuing education should

be an integral part of medical education, no such regular and organised programmes are being run in teaching hospitals. The objective of a continuing medical education programme should take into account the national priorities and needs of the health sciences. Lacks of funds are always a major impediment while conducting any programme, though governmental support is very essential. Contribution from pharmaceutical companies and philanthropists may be sought. Tuition fees or membership fees from the students could also be used to certain extent. Continuing education of all professionals of the health team is very much important if the health services are to be of the highest quality, generally acceptable efficiently organized and economically delivered.

MEDICAL RESEARCH IN MEDICAL COLLEGES

At present much of medical research in the country is carried out mostly in special research institutions outside the medical colleges. Though, there are 106 medical colleges in the country, research of any reasonable standard, is carried out only in a very small number of them. This is because the teachers are busy with routine teaching assignments, and private practice and they do not have enough time for library work and for keeping abreast of recent development. They are inadequately trained in research procedures in the absence of research tradition in the medical colleges. Most of the medical colleges are ill-equipped and even basic apparatus and facilities for research are lacking. Most of the medical colleges are characterised by compartmentalization of different departments and is not conducive to inter-departmental cooperation which is very important for modern medical research which requires interdisciplinary team effort.

Medical research can have a meaning and lay legitimate claim to public funds only, if it is addressed to the major health problems confronting the country, and is so designed as to provide feasible solutions to those problems, capable of application in the face of current constraints with regard to resources and trained manpower. The pattern of medical research should not be dictated by the 'fashions' currently prevailing in Europe and USA 'Internal brain drain', caused by trained research workers using our institutional facilities to work on 'problems' handed down to them by foreign funding agencies should be resisted. Initiative research, often masquerading as 'original' or 'basic' research should be discouraged, while research on major health problems right at our doorstep should get generous support.

Till now medical research has not had the priority in the country which it deserved. This is reflected in the meagre financial allocations for medical research and the relatively lower status accorded to the Indian Council of Medical Research as compared to other similar organisations such as Indian Council of Scientific and Industrial Research. The programmes of research in medicine cannot yield clear cut and ready answers and clearer practical application in the field as in the case of agriculture and industry and getting the tangible results is even slower in studies directed towards prevention than cure. Most of these studies cannot lead themselves to tidy cost benefit analysis, the administrators should appreciate the

conditions of medical research and should provide higher financial allocations for the purpose, if persuasive research in our development plans have to be carried out.

The entire work of medical research on the national level is being coordinated by the coordination committee on medical research. It has provided a very useful forum for communication between the administrators and researchers and that currently the committee is promoting researches in the areas, of human reproduction, malaria, leprosy, health care delivery and diarrhoeal diseases including parasitic infestations. Ultimately it will coordinate research efforts in all areas of medical research in the country reducing the gap presently existing between the laboratory and the field.

ROLE OF UNIVERSITIES IN MEDICAL EDUCATION

The question that is being constantly debated is how the university should be integrated with medical education as it is being realised that the universities should play a more positive and active role in medical education. At present only 2 of the 106 medical colleges are university medical colleges and all others are affiliated to the common universities with the idea that the medical students will mix with rest of the university life and learn from student community which forms a large cross section of our society, about humanities and social problems which would be useful, later in their professional life. But the medical students are too much immersed in their technical jargon that they know very little about happenings around them. Medical students are also not acquainted with development and thinking in the other schools of medicine and this creates antagonism, professional rivalries amongst the practitioners of various systems of medicine. This is precisely the cause for having reservations about utilising practitioners of other systems of medicine in a large measure in our health services and planning. Our universities have 'out-grown' in their activities much beyond their capabilities and can hardly pay their undivided attention to both academic and financial aspects of their medical faculties. Further, the developmental programmes of the medical colleges face setbacks as the funds at the disposal of medical institutions and faculties are either limited or diverted to other stronger faculties. This results in much undesirable variations in syllabi, curricula, teaching and examinations in different universities and in different medical colleges within the same university. This contributes to a large measure of student unrest. The disturbances in other faculties and closure of university etc. disrupts the teaching schedule and conducting of examinations of the medical colleges. The pay scales of the staff of medical institutions are low in contrast to the better pay scales of teaching staff of other faculties which receive grants from UGC. This causes discontentment in the medical staff with all the resultant adverse consequences. The universities have their own code and pattern of working and it is not possible always for the medical bodies to prevail on the Academic Councils and syndicates etc. to implement national policies in right earnest.

DEVELOPMENT OF AGENCIES FOR IMPLEMENTATION OF EDUCATIONAL PROGRAMMES

Medical Universities: Establishment of medical universities in the country

embracing training in all systems of medicine and all types of auxiliary health personnel under the common umbrella, is the only logical solution to remedy the existing system. This is in accordance with the thinking of the Central Council of Health and Family Welfare. Some States are already taking active steps to establish medical universities e.g. Andhra Pradesh, Karnataka, Haryana and Uttar Pradesh. Multi faculty medical, universities facilitate inter-faculty consultations and discussions, learning academic problems from other faculties, inter-disciplinary research and exchange and utilisation of knowledge of other disciplines made for easier. Such universities would ensure uniformity in the policy adopted in medical education throughout the country. Periodical assessment and uniform midcourse corrections/revisions from time to time, according to the needs could also be possible. It would also help in realisation and estimation of the potentials of all systems of medicine and their realistic assessment and therefore, optimum utilisation of total health manpower. The major problem which has to be encountered in the proposed universities would be that of funds. The funds have to be ensured from the Central and State Governments through some Central/Staff Agency, if this experiment has to succeed. The functioning of these medical universities will require coordination both at the State level and through a general Medical Council comprising of representatives of all disciplines. Minimum three to four years period should be given before the results of this experiment are discernible.

Education Commission for Health Sciences: For more than three decades there have been several committees, constituted by the Government of India to review medical education and health care system in the country. Although most of the recommendations made from time to time by these committees were extremely laudable, there was a lack of follow-up action, resulting in non-implementation. Constitution of a Commission, with major emphasis on its role as an implementing agency adequately backed by budgetary and other resources, is essential. This Commission should control supervise, aid and coordinate various medical universities to ensure uniformity of standards and developments. Adequate financial resources should be made available to the Commission and through it to the professional institutions to ensure essential inputs required for restructuring professional education in order to make it not only intellectually stimulating but also socially relevant. This Commission should also ensure just and equitable distribution of financial resources between different branches of medical and health sciences and various systems of Indian Medicine and Homoeopathy.

University of Health Sciences: University of Health Sciences should be established in the country and its structural organisation should rest on tripod of professional education including all systems of medicine as well as branches of professional education, paraprofessional education and education in medical humanities including social and behavioural sciences. In addition, there is a need for strong faculties of education and training as well as health management, The Department of Medical Pedagogy will aim at imparting training in the technology of education. These universities will enable fullest participation of medical professional in the matters related to medical and health education. They also provide necessary

flexibility and opportunities for innovation in patterns of teaching and training of health services that can flourish only in autonomous university environment. In the accepted pattern of health delivery to the people, the modern medicine as well as the Indian System of Medicine and Homoeopathy have their own roles to play and at the operational level of providing health care, these systems are required to supplement each other. A health university can provide organisational framework for such interaction. Currently the training of different health professionals is the exclusive concern of the respective institutions and there is no coordination amongst the various training programmes much less interaction so necessary for training of a health team. The establishment of a health university, while coordinating the training activities of these institutions will promote the concept of health team development. It is hoped that the establishment of a health university on a multi-disciplinary basis, embracing all systems of medicine will promote the concept of health development. It is hoped that the establishment of health university on a multi-disciplinary basis, embracing all systems of medicine, will promote the concept of a national health system. These universities should be established at the State level, with provision for the establishment of a central university of health sciences.

CONCLUSION

Medical education in India today represents a colossal problem with an obvious impact of nation-wide consciousness for readjustment to the present and future needs of the country. The medical educationists are considering the re-orientation of our educational concepts and introduction of newer curricula and methods of teaching so that the time spent by the student in a medical college is better utilised and results in a more useful doctor than at present. The defect in our medical education becomes evident when we analyse the quality and performance of our graduates. There is no denying that there has been gradual lowering of the standard of the medical graduate being produced. This has been further accentuated by the acceleration of medical education and increasing number of admissions to the medical colleges made necessary by the needs of the country. Constant experimentation in medical education is necessary to find out an acceptable solution to some of these problems.

Lkkjk'k

प्रस्तुत लेख में भारत में आधुनिक चिकित्सा शिक्षा प्रणाली के विकास की ऐतिहासिक पृष्ठभूमि को प्रस्तुत किया गया है। लेख में चिकित्सकीय जनशक्ति के प्रवेश संबंधी नीति, मेडिकल कालेजों तथा अस्पतालों, परीक्षा प्रणाली, मेडिकल कालेजों में सतत शिक्षा अनुसंधान, स्वास्थ्य सेवा विश्वविद्यालय, चिकित्सा एवं स्वास्थ्य शिक्षा आयोग आदि जैसे महत्वपूर्ण मुद्दों पर प्रकाश डाला गया है। 1— इन सभी पक्षों के परिणामस्वरूप

हुए प्रभावों के कारण देश में चिकित्सा शिक्षा संबंधी वर्तमान और भावी आवश्यकताओं को पूरा करने के लिए चिकित्सा शिक्षा में आवश्यक समायोजना हेतु राष्ट्र-व्यापी स्तर पर एक प्रकार की जागरूकता उत्पन्न हो गई है। 2— मेडिकल शिक्षा में नये पाठ्यक्रमों को लागू करना तथा शिक्षण पद्धति के नये तरीके सुझाना और देश में स्वास्थ्य शिक्षा के बेहतर उपयोगिता संबंधी नई अवधारणाओं से अवगत होने के बारे में शिक्षाविद आज बड़ी गम्भीरता से इस समस्या पर विचार कर रहे हैं। 3— देश के मेडिकल स्नातकों के स्तर और कार्य निष्पादन की गुणवत्ता में हो रही कमी के कारण हमारे देश की मेडिकल शिक्षा पद्धति में आया अन्तराल बहुत स्पष्ट हो गया है। 4— देश में स्वास्थ्य शिक्षा की गुणवत्ता और मात्रात्मक से संबंधित समस्याओं के बारे में कोई स्वीकार्य और चिरकालिक समाधान प्राप्त करने के लिए यह आवश्यक है कि मेडिकल शिक्षा के क्षेत्र में निरन्तर प्रयोगात्मक प्रक्रिया का चलाया जाए। 5— देश के सभी 106 मेडिकल कालेजों में अनुसंधान की प्रवृत्ति और परम्परा का विकास करने की आवश्यकता है तथा अनुसंधान साधनों, अनुसंधान प्रक्रिया और अभिगमों में आये मूलभूत अन्तराल को तत्काल दूर करने की आवश्यकता है। 6— सतत शिक्षा को मेडिकल शिक्षा प्रणाली का अभिन्न अंग बनाया जाना चाहिए जिसमें राष्ट्र की स्वास्थ्य संबंधी वरीयताओं के आधार पर प्रशिक्षण कार्यक्रम पर विशेष बल दिया जाना चाहिए। 7— मेडिकल शिक्षा संबंधी पाठ्यक्रम और प्रशिक्षण और पद्धति में प्रयोगात्मक अभ्यासों पर विशेष बल दिया जाना चाहिए तथा सांख्यिकी, स्वास्थ्य आर्थिकी, समाज शास्त्र और महामारी विज्ञान आदि जैसे विषयों का समावेश किया जाना चाहिए। 8— शिक्षण कार्य में क्षेत्रीय भाषाओं का भी स्थान है, यद्यपि यह बहुत सीमित है, विशेष रूप से जबकि चिकित्सा शिक्षा का सहअस्तित्व अन्तर्राष्ट्रीय शिक्षण ढांचे के अनुरूप बनाये रखा जाना आवश्यक है।

REFERENCES

1. ANAND, B.K. (1971) Changes needed in medical educational system methods to be employed to assess medical education in order to meet the community health need. *National Conference on Medical Education*, September 20-28, 1971.

2. ACHARYA, S. (1970) Aims of medical education in a developing country and the facilities available, **Ind. J. of Medical Education, 9.**
3. BAJAJ, J.S. (1986) An interface for human resources development. **Ind. J. of Medical Education. XXV(1).**
4. BOSE, B.C. (1970) Declining standard in medical education: Critical appraisal and suggestions for improvement, **Ind. J. of Medical Education, 9.**
5. DAS, P.K. (1970) Research in Medical Education. **Ind. J. of Medical Education. 9.**
6. DHANOA, S.S. (1986) Is reform in medical education necessary? **Ind. J. of Medical Education. XXV:(1).**
7. DURAISWAMY (1970) Need based undergraduate medical education. **Ind. J. of Medical Education, 9.**
8. FULOP, T. (1980) Education and health care. **Medical Education. 14: (5)** supplement.
9. GANDHI, H.S. (1979) Continuing medical and health education and endorsement of license after a fixed period of time. **National Conference on Medical Education.**
10. GANDHI, H.S. (1979) Research Relevant to Health and Medical Care Needs. **National Conference on Medical Education.**
11. GOPALAN, C. (1979) National Policy for Medical Research. **National Conference on Medical Education.**
12. JOGEKAR, S.V. A new approach to medical education. Experiment in medical education for a developing society. Session IV.
13. KISHORE, J. Development of agencies for implementation of educational programmes including the setting up of medical and health education commission.
14. MAHADEVAN, B. (1971) Drawbacks of our current medical education system. **National Conference on Medical Education.**
15. NARAYAN, L. (1959) Report on Medical Education in India 1959.
16. RANGAIAH, P.N. (1972) Medical Education Dilemmas and Demands. **Ind. J. of Medical Education. X:(4).**
17. RAO, K.N. (1970) Ten Years of IAAME, "Retrospect and Prospect. **Ind. J. of Medical Education. 9.**
18. SHETH, C.S. (1984) Priority based and problem oriented medical education. **B.C. Roy Anniversary Souvenir 1984.** Medical Council of India.
19. SANKARAN, B. (1979) Rationale of structural reorganisation in medical education. **National Conference on Medical and Health Education.**
20. SATHE, R.V. (1971) Current medical education is not suitable for community needs. **National Conference on Medical Education.**
21. SHARAD, KUMAR (1979) Establishment of University of Health Sciences. **National Conference on Medical Education.**

22. SINHA. A.K.N. (1986) Procedure and policy of medical admission. ***Ind. J. of Medical Education. XXV:(1).***
23. TANDON, B, (1979) Continuing medical education. ***National Conference on Medical Education.***
24. TIWARI, T.R. & PATNAIK, K.C. (1970) Role of Health Centre Complex in Medical Education ***Ind. J. of Medical Education. 9.***
25. UDUPU, K.N. (1970) Students Seminar. ***Ind. J. of Medical Education. 9.***
26. WAHI. P.N. (1970) Experimentation in Medical Education. ***Ind. J. of Medical Education. 9.***
27. WIG. K.L & BAJAJ. J.S. (1970) Undergraduate clinical curriculum - A Reappraisal. ***Ind. J. of Medical Education. 9.***

THE PERSPECTIVE AND ISSUES IN THE TRAINING OF PARA-PROFESSIONALS IN INDIA

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ABSTRACT

The paper tracing manpower perspectives, brings out following broad-points and issues related to health manpower development (HMD) in India: (i) Programmatic outlook of middle level managers and their lack of appreciation, for an integrated multipurpose approach had a negative effect on reinforcing the workers to function in a multipurpose way; (ii) There is hardly any coordination between educational planning, teaching and health service delivery system; (iii) There is an acute dearth of learning and resource materials and if such material is there it is largely centralized; (iv) The system of continuing education envisaged under previous plans has not been operationalized and there is a lot of adhocism in deciding about the curriculum content and duration of courses etc.; (v) There does not exist at any level any appropriate training information system, and training programme is just target oriented with major consideration only to spend money by target date; (vi) Faculty of a health and family welfare promotional schools are hardly exposed to concepts of primary health care and MPW Scheme and to current programme strategies; and (vii) Efforts in supervised field training particularly within the framework of educational technology are lacking.

India became independent in 1947. Since then the avowed concern of the national government had been to provide health care to everyone in the remotest part of the country and thereby the approach to health problems and delivery of health care have undergone continued and radical change. The initial strategy had been to control and eradicate those common killer diseases which were obviously responsible for the major morbidities that caused huge loss of life and productivity. The result had been the growth of a number of parallel vertical disease control programmes with huge infrastructure without any deliberate effort to develop an organised system of comprehensive health care services. Since 1974, after adopting the multipurpose workers strategy and since 1978 being signatory to Alma Ata Declaration, within these last 15 years the nation has committed itself to primary health care approach to achieve the goals of Health for All and net reproduction rate of unity. To achieve this stupendous task, it is necessary that all the available resources should be used optimally in most efficient and effective way. Manpower is one of the most important resources for the labour intensive, rural health services. It

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implies that the health manpower development policies should ensure that manpower, planned and trained are fully and gainfully utilised.

The document on national health policy 1983, under clause 9 clearly states that a dynamic process of change and innovation is required to be brought about in the entire approach to health manpower development ensuring the emergence of fully integrated bands of workers functioning within health team approach.

Under clause 7 it reiterates that it is of crucial importance that entire basis and approach to medical and health education at all levels is reviewed in terms of national need and priorities and the curriculum and training programme are re-structured to produce personnel of various grades of skill and competence who are professionally equipped and socially motivated to effectively deal with day-to-day problems within the existing constraints.

In any given situation, therefore, the categories of health manpower required to deal with health care of the community have to be largely guided by the morbidity and mortality patterns the factors responsible either causative or contributory to such patterns the national health needs and priorities and the approach to health care.

Even the Minister's conference on implementation of primary health care held in May 1987, clearly focussed on the basic training and continuing education for all categories of personnel deployed in the primary health care services. It urged the States and Centre to review the programmes of training with a view to ensure that all those in position who have not received requisite training are put through appropriate training courses and those who are placed in positions in future, are adequately trained beforehand. It even suggested close monitoring of the training programme both by the States and the Centre and identifying a senior level functionary at the State level for coordinating all tasks relating to training programmes of various functionaries involved in the primary health care services.

HISTORICAL PERSPECTIVE

It would be desirable to review in brief the salient recommendations of various committees on education and training of different health workers. An outstanding contribution to health services planning has been the report of the 'Health survey development committee' [Bhore, 1946] which changed the very complexion of health services delivery system. The categories of functionaries which emerged with the implementation of first two five year plans were related to the evolution of multiple vertical national programmes and of primary health centre complex as an integral part of community development blocks which were started in 1952.

Therefore, multiple categories of functionaries operated in the field or in the health care institutions with narrower programme operational skills. They could be better regarded as programme-operatives and were largely trained on the job, or were imparted very small institutional based training during their services. The 'Survey and Planning Committee 1961 known as Mudaliar Committee reviewed the progress within first two five year plans in order to formulate plans for future health

development in the country. Though the deliberations of this committee so far as the health manpower was concerned heavily weighed in favour of medical education yet it made a slight departure. It recommended that **professional education be broadly defined as comprising all those courses of training which are essential for the proper preservation of the health of the nation** and included the education and training of doctors pharmacists, public health nurses general nurses, midwives and several other varieties of paramedical personnel so essential for the proper coordination of all aspects of medical and public health care. The para-medical personnel were also to include auxiliary medical and public health personnel like health engineer, lab. technician, radiographer, dietician, vaccinator, malariaologists, etc.

It is for the first time we find that an attempt to classify the professionals and para-professionals had been made and the education and training of all categories of health personnel has been given the status of professional education. It was a bold positive step, however, it was later not implemented in its true spirit. This committee on the issue of the types of manpower required as to provide for the optimal utilisation of medical manpower suggested:

1. Larger production or training and use of health auxiliaries and para-medicals for health care.
2. Early provision of trained/**skilled trainers** to man the training institutions of para-professionals.
3. Health technicians to be trained for **multipurpose duties** in the field of medical and health care.

The committee with regard to the training of nursing-professionals observed the following:

So far as nursing personnel are concerned, there should be three grades of them: (a) Auxiliary nurse midwife; (b) Basic nurse with four years training inclusive of midwifery and public health nursing; and (c) Nurse with a university degree.'

It is suggested for career mobility within the nursing cadre by providing opportunity to an ANM to do basic nursing after three years work-experience and basic nurse to be provided facility for higher professional education. Moreover, it recommended to prepare multiple types of medical auxiliaries to help doctors and public health personnel under various health programmes for field work.

In 1963, Chadha Committee seized with the problem of integrating malaria with general health services in the areas under the maintenance phase, recommended the change to auxiliary/basic health worker in place of malaria surveillance worker, to be supervised by sanitary or health inspector. It recommended creation of post of laboratory technician at PHC and post of family planning field workers/assistants to take care of population growth to intensify the family planning measures. The additional utilisation of block extension educator's services for all the national health programmes other than the family planning was also suggested.

In 1966, Mukerjee Committee reviewed what additional changes are required necessarily as a result of the greatly altered situation because of *IUCD* having come in forefront of family planning programme.

The recommendations were:

1. to strengthen the programme by appointing additional family planning field workers and LHVs; and
2. appointing part time motivational leaders with honorarium of Rs.600 per annum.

Thus, so far the various categories of para-medical and nursing functionaries and supervisors working in the rural areas had been:

1. Nursing functionaries -trained dai/midwife/ANM/LHV/PHN.
- 2., Paramedics - BHW/Vaccinator/family planning field worker/trachoma worker/smallpox inspector/malaria inspector/filaria inspector/BCG team leader/non-medical assistant (leprosy).
3. Technician - Microscopist/Lab. tech./BCG tech.
4. Extension workers - Block extension educator/TB health visitors/family planning field assistant.
5. Drug Distribution and First-aid-Pharmacist/Compounder/Dresser.
6. Information handling - computer/statistical assistant etc.

Kartar Singh Committee 1974, realised that variations in categories of health manpower requirement could pose problems in terms of integrated health care services. The committee critically examined and agreed that concept of multipurpose workers and supervisors was both desirable and feasible to work as a team at sub-centre or PHC level. It suggested clubbing of various posts at grass root and supervisory level for male functionaries as Health Worker (Male) and Health Assistant (Male) and redesignating ANMs as Health Worker (Female) and LHVs as Health Assistant (Female). The scheme was launched during the fourth plan. It also suggested for orientation training of such multi-faceted workers and utilisation of mobile units set up under family planning programmes for integrated health and family planning services.

The Srivastava Committee 1975 set a group on medical education and support manpower' to focus on the rationalisation of the health manpower development both in terms of numbers as well as categories. The report highlighted on:

1. Development of human resource.
2. A model of health care delivery which is away from western system and places greater emphasis and reliance on human potential and effort.
3. Self-reliance in matter of health.

The delivery system suggested for primary health care was a four-tier system including:

1. Health Guide, bridging gap between community and organised health services.
2. Class of health workers (M&F) operating at sector level.
3. Health Assistant (M&F) functioning in Sector/PHC,
4. MOs and paramedics at PHCs.

The Mehta Committee 1983 in Part II reflected on lack of an effective manpower data information system to make projections for various categories of professionals and para-professionals of both sexes.

The Planning Commission "Working Group on Medical Education. Training and Manpower, 1984" while formulating the seventh plan brought out certain issues which had implications for health manpower specially the para-medicals. It recommended to give high priority and emphasis on training of para-professionals and auxiliary personnel, so as to correct the imbalances in their availability. It gave highest importance to training of auxiliary and para-professional personnel whether basic, pre-service or induction training in community health and health management.

Of late, it is being now realised that it is essential to appreciate that efficient and effective delivery of primary health care would depend on the nature of education and training and orientation of all categories of health personnel towards community and their capacity to function as an integrated team. Therefore, a need to separately formulate the policy on education of medical and paramedics is essential. It should set out its objectives to help the process to: (i) bring out the changes required in curricular content and training programmes of health personnel's at various levels and remove imbalances in their proportions; (ii) to establish extremely close and essential relationship between functionaries of different grades/levels; and (iii) provide guidelines for production of such health personnel on the basis of assessed requirements who are socially motivated to deliver health services in the community.

Of late the Health Manpower Planning, Production and Management Committee presented its report in January 1987 and observed that health manpower requirements, should take into cognizance of the fact that individual family and community constitute the most important health manpower resource. So far production of health manpower had largely been through health sector It has. in consonance with national education policy, recommended starting of 10+2 stage vocational courses for health related sector like Health Worker (M&F). Radiographers, X-Ray Technician, Lab. Technicians. Ophthalmic Assistants. Dental Hygienist, Sanitary or Health Inspectors, Occupational Therapists, Hospital Housekeeping Assistants and Pharmacists, etc.

The Training System

Prior to 1974, there had been no organised system for the training of other

health categories of workers except the nursing auxiliaries and professionals. Regarding nursing component there had been training programmes like six months for dais and midwives two years for Auxiliary Nurse Midwives, two and half years for lady health visitors, three years for general nursing and two years for post basic certificates. Beyond it, there had been regular four year degree and two year post-graduate education for nursing professional. But for other para-professionals there had been large variations. In most States the public health institutes and medical colleges trained the grass root level workers and first level supervisors but in certain States the district health officers trained them. There had been a wide variety in training of different categories of programme based functionaries and their supervisors. Duration had been as different as from three days to three months for the same category in different States. The major thrust has been to recruit unskilled workers and convert them into semi-skilled workers by training them to do very limited operations. As regards, supervisors except Health/Sanitary Inspectors who underwent one year's training in public health after 10 no other supervisor underwent any regular educational course in a professional school.

Others largely underwent one month or one and half months training in their own trade/vocation may be with district level officers or in specialised centres like National Malaria Eradication Organisation, National Tuberculosis Institute, Tuberculosis Demonstration Centres, Leprosy Institutes, Filaria Control Organisation, etc. The block extension educators and family planning health assistants were recruited in many States as fresh graduates or post-graduates with social sciences. But in many States they were promoted from sanitary inspectors who had undertaken certificate or diploma in health education. They further underwent three to six months orientation training in the Regional Family Planning Training Centres started for the purpose to prepare trained and skilled manpower to work in the field of family planning.

Since 1974, with the inception of multipurpose workers scheme, the attention of health organisations focussed on creating a unified system of training integral to health services system. The PHC became the centre for orientation training of multipurpose workers male and female both. The RFPTCs were now designated as 'Health and Family Welfare Training Centres' which took responsibility for orientation training of all categories of health assistants/health supervisors upto PHC level. The Central Training Institute had the responsibility of training the key-trainers of HFWTCs and officers of district level. It was a well coordinated system of in-service training which was evolved to convert the different health functionaries into Health Workers (M&F) and Health Supervisors (M&F) into a unified pattern of functioning.

In 1978, the Srivastava Committee recommended the CHW Scheme, the present Health Guide Scheme. The training of these workers was organised at PHCs. They were given a well defined curriculum and prior to it their trainers were rightly oriented at HFWTCs and the key-trainers were trained/oriented at Central Training Institutes. The training of dais was also streamlined to one month and organised at PHC by LHVs with a defined curriculum. Later it was spread to be conducted at sub-centres by the ANMs/HW(F),

The Government of India urged the Nursing Council of India to formulate a course for HW(M&F) for one and half years and for supervisors HA (M&F) for six months.

These courses were designed and implemented since 1981 in most of the States. However, the HW(M) schools, in the State of Maharashtra, experimented with one and a half years programme but latter in consultation with Government of India reduced it to one year which has been adopted all most in all the States in the country except Himachal Pradesh. These schools were started in the HRWTCs whereas HW(F) schools already continued to be in old ANMTCs. The LHV schools were made promotional schools for HA(F). The old sanitary inspector/health inspector training continues to be at public health institutes but promotional HA training has not started so far as the number of HAs is too large. The training of pharmacists has been taken over by Pharmacy Council by granting recognition to polytechniques or junior colleges for the purpose. The Regional Ophthalmic Institutes are training ophthalmic assistants.

The training of TB/Leprosy/Filaria/Lab. Technician is still programme-based or district hospital-based, wherein the concerned units orient/train the concerned functionaries in their departments. The supervisors get certain orientation at national institutes/organisations. As regards block extension educators, orientation is being done at HFWTCs particularly in communication and trainers of HFWTCs have been oriented by selected CTIs in turn for the purpose for months.

Issues

Though it may appear from the description that training of health personnel required for primary health care has a well knit training system but there are some basic issues which need to be considered to improve its functioning both at continuing and basic education levels.

A. Continuing Education: 1. It has been the experience that in most of the cases the health functionaries are not equipped adequately for the type of expected of them in the field. There are deficiencies in the skill and understand grassroot level functionaries and their supervisors. It has been due to historic the fact that initially health workers were recruited without any pre-service training and were provided every elementary training on the job within the vertical programmes as to perform certain tasks quite routine in nature. The single exposure to orientation training under MPW Scheme, coupled with late implementation same had further widened the gap in performance. Moreover, the program outlook of middle level managers and lack of appreciation for an integrated multipurpose approach had a negative effect on reinforcing the workers to function in a multipurpose way.

2. There is a need to review the existing and even updated job description health personnel and to reformulate and redesign those to fulfill the needs current problems and programmes of health and family welfare, and examine

whether training curricula has the relevance to current job functions and is appropriate to local health needs and socio-cultural settings.

3. There is a critical need to examine whether the workers are provided competencies to solve the community health problems that is to observe, to analyse, to interpret and to respond intelligently to health behaviour of the community and function as a health team. The provision/acquisition of such competency-based training has to be integral with the health care system, the training system and the professional organisations/bodies. It envisages the planned provision of systematic learning during service as essential aspect of supervisory function which miserably lacks.

4. Despite acknowledging the need for continuing education and in-service training, there is a wide gap in seniors' attitude to depute functionaries for continuing education. It need to be mandatory and should constitute an important aspect of future promotional policy.

5. The need to reinforce the health workers' status/image in the community ensuring of the following is very crucial: (i) Training is relevant to the job functions to be actually performed in the field; (ii) Training opens the career possibilities; and (iii) Training brings qualitative improvement in performance. It should be noted that 'suitably trained' is the focus rather than 'highly trained', and the composition of health team is appropriate to overall health development in rural areas.

6. The in-service training does not lay stress on functions that facilitate team work. It should enable them to work efficiently together and to understand each other's role-complementary, their role overlap, the process of collaborative work, and the place, of the team in the totality of the health delivery system.

7; There is no coordination between educational planning, teaching and health services delivery system. Follow-up of the workers is never attempted by the in-service training system nor delivery system. It did not receive any feedback from the supervisory system on the utilization/management of health functionaries.

8. The experience has shown that training techniques used are not very effective in improving skills and changing attitudes. Trainers lack in use of such modalities/techniques as use of flow diagrams, learning modules, problem solving approaches, and learning projects, which could improve the decision-making process, ability to take self initiative, the capacity to think about alternates and to respond in a specific way to different situations.

9. the teaching of primary health care functionaries by tradition had been undervalued and neglected. The teachers were not adequately prepared to plan, organize, implement and evaluate the teaching learning processes. The vastness of numbers and the zeal to implement MPW scheme, HG scheme and trained dai scheme by converting all PHCs as training centres did not allow for any selection of teachers with regard to their knowledge of health sciences, educational technology, and their aptitude towards the scheme and concept of primary health care and experiences in its implementation were also not taken care of. Therefore despite a suitable

curriculum, the **supervised field training** was not at all conducted the way it was to-be organised which could lead to integrated health care approach by cutting across the vertical programmes. There is need to develop educational approaches/innovations whereby PHC supervisors with broad experience and competence could be trained to become field demonstrators and trainers and bring about an integrated outlook towards primary health care

10. There was an acute dearth of learning resource material before launching of the MPW training. The criteria of time, energy, financial and material resources and appropriate manpower were not taken into consideration. Therefore, the production of manuals had been too late and could not serve any useful purpose as it was produced almost when training in most of the States was completed. The involvement and utilization of the capabilities of training institutions in the production of learning resource material has been almost negligible. It had largely been centralized with the Training Cell of the rural health division. The impact on the development of trainer capabilities and attitudes by getting involved in preparation of learning material could not happen. It also posed problems of delayed translation into different languages and late distribution of those manuals,

11. The system of continuing education envisaged under seventh plan has not been operationalised so far. Its main aim is to maintain motivation among health functionaries to improve their competence in day-to-day performance. The content 'of continuing education should be largely based on identified performance discrepancies, short-comings and lack of knowledge or skill or wrong attitudes. It should also take into cognizance the findings of any current survey, census, epidemiological studies, operations research, health services research, evaluation of the health care delivery system and performance appraisal of the functionaries. It should aim to educate/train the functionaries to undertake tasks more efficiently, to undertake new/revised tasks and to reorient towards changing concepts, priorities and techniques.

12. There were though zonal, and national review meetings to assess the completion of training targets but there had been a complete lack of continued monitoring and evaluation of the in-service training system and its processes. Initial effort to evaluate the capabilities of PHCs and to look into teaching learning process were made under HG Scheme, of key-trainers, under MPW Scheme in few States and of dais training scheme, as requirements, of funding agencies, or for the continuance of the scheme but were not utilized to build any monitoring system for the training function..

13.. There has been a lot of **adhocism** in deciding about the curriculum content and duration of the training courses. Moreover, there has been a great indecisiveness in implementing the same. The training of block extension educators has been of the kind. Therefore. the same person is exposed repeatedly to three months, 75 days and one month training programme with not much content variation which makes training dysfunctional and creates apathy for it

14. There does not exist at any level any appropriate training information system

by which the training status of existing personnel could be assessed for deputation nor there is any said procedure for it.

15. There is no integrated coordinating system for training either at the State or Central level. The training under various programmes like UIP/CDD/ORT/EPI are being organised by programme officers of the State without adequate preparation and facilities for training. Even training programme is target oriented with major consideration to spend money by target date.

B. Basic Education: So far, the basic education is largely being imparted to female health workers and supervisors on a large scale. The training of HW (M) has recently started since 1983. The pharmacists, general nurses are being trained in their schools. These schools are inspected by respective councils and thereafter allowed to function. But current study to evaluate the status of these schools by NIHFW has brought out following problems and issues:

1. There is an imbalance in availability of para-professional manpower. Certain categories are in surplus and certain categories are in acute shortage.

2. Increase in the number of substandard schools (in certain States like Andhra Pradesh, Karnataka) by allowing private and voluntary bodies to run the schools with total disregard to their viability in future.

3. Lack of adequate infrastructure, school building, hostel facilities, equipments, library facilities play ground, water supply and staff quarters in more than 45 per cent existing institutions.

4. Though the number of teachers remained same as it was earlier for an intake of thirty students but now in every semester thirty students are admitted and at any point of time there are ninety students. The facilities which were earlier adequate in 55 to 60 per cent schools are also now totally inadequate considering the intake, space and faculty available. The staffing pattern does not conform to the prescribed student-teacher ratio nor to the requirements of supervised field training.

5. The administration of training schools of HW (F)/General Nursing is under the control of CMO/MS of the district. The faculty generally has no say even in the selection of the candidates. For all purposes schools are entirely dependent on district officers who are quite indifferent to their problems. It does come in the way of teaching and training. The schools face administrative difficulty.

6. The faculty of the HW(F) and promotional schools are not exposed to concepts of primary health care and multipurpose scheme. Many basic subjects are included in the curriculum for which they are not trained to teach like psychology, sociology, epidemiology, pharmacology etc.

7. There is a need to expose the faculty of HW(F) schools to current programme and strategies regarding risk approach, malnutrition problems control of diarrhoeal diseases, universal immunisation, oral rehydration therapy and IEC etc.

8. The trainers lack in the skills of educational planning, implementational methods and modalities and evaluation techniques. They need a training in educational technology.

9. The facilities for supervised field training at PHC except in Tamil Nadu are not adequate because of lack of training annexe for students and stay facilities over there for the staff. Therefore thrust on training in community health and primary health care is not much and the training in conducting supervised deliveries suffers a lot. The extent of coordination and cooperation required between MO PHC and the school is not there.

10. During field work there is no emphasis in promotional training on development of supervisory skills.

11. There are no specifications about the field training component of the curriculum to be imparted during rural training and its relevance to job.

12. There is undue stress on theory and hospital-based learning. There is a need to bring a balance in theory and field practice and make it more relevant to required competencies of the field.

13. The system of evaluation of training is not well defined. No evaluation is being done based on field work/assignments.

14. There is lack of supply of educational/learning material and audio-visual aids for the trainers.

15. There is no equity between HW(F) and HFWTCs functioning as HW(M) schools in matters of staffing and facilities. Therefore, standards of training differ. Moreover, there is no parity between their training duration. It may cause future administrative problems.

16. There has been no evaluation of the functioning of these schools on a national basis either by Government or by the State nursing councils to develop norms of staffing, equipment and space for training and supervised field training under existing training strategy.

17. According to increasing number of schools and increasing demand for suitable trained tutors, there are not enough PHN and Tutor's training centres. The problem becomes more acute if we consider the requirement of para-professional administrators like district PHN or LHV.

18. The faculty of basic schools lacks community orientation and sensitization towards growing impact of other sectors of development and the need for integrated approach to total health care and population control.

19. Lack of awareness in faculty regarding (i) mothers and children and weaker sections of society as most vulnerable groups; (ii) thrust on health education of women and children, (iii) value of curricular review to improve performance skills of their own; and (iv) need to get feedback from field supervisors to improve training.

CONCLUSION

To conclude, all of us concerned with HMD need to look into the: (i) number of health functionaries required and corresponding production of number of trainers:

(ii) orientation of trainers to health rather than disease; (iii) educational processes used by trainers and learners; and (iv) organisational structure developed in schools and its relationship with health services in order to answer the following issues related to the education and training-

Whether: (1) service settings are to be used for experimental learning to ensure that trained manpower has the competency to provide defined quality/standard of health care at his level; (2) the training is relevant to community health needs or to the requirements of any higher education or external accrediting body; (3) there is a balance between the training for the present and immediate future and the training has a perspective of the health organisation; (4) the content of the education and training is based on interaction between tutors and programme officers and their requirements; (5) it is all facts or contains skills and orientation to attitude and problem processing skills and is relevant to work as a health team; (6) educational processes/modalities adopted ensure optimization of effectiveness and efficiency of learning experiences; (6) the evaluation system plays the role of motivating the learners to learn and helps to improve the educational processes and performance of students; (7) the selection of candidate helps to optimize effectiveness of learning strategies like; willing to be with rural community; sensitivity to weaker sections; tolerance to ambiguity; and concern to help and care for others; and (8) training system is relevant and prepares students to realize the objectives of; (i) problem orientation; (ii) participation in decision-making; (iii) team working; and (iv) adopting to changing role relationship between education and services.

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प्रस्तुत लेख में स्वास्थ्य जनशक्ति के स्वरूप को वर्णित करने के साथ-साथ लेखक द्वारा देश में स्वास्थ्य जनशक्ति विकास से संबंधित निम्नलिखित प्रमुख मुद्दों तथा समस्याओं पर प्रकाश डाला गया है: 1— किसी कार्यक्रम में एक समन्वित एप्रोच धारण करने के प्रति मध्यमस्तरीय प्रबन्धकों में योजना विषयक निजी दृष्टिकोण के कारण तथा उनमें सही समझ का अभाव होने के परिणाम स्वरूप कर्मचारियों में बहुउद्देशीय कार्यप्रणाली लागू कराने की प्रक्रिया पर नकारात्मक प्रभाव पड़ा है, 2—शैक्षिक योजना, शिक्षा प्रक्रिया तथा स्वास्थ्य सेवा वितरण प्रणाली में शायद ही कहीं कोई समन्वय स्थापित किया गया हो, शिक्षा संबंधी स्रोत सामग्री का अत्यधिक अभाव तथा जहां कहीं ऐसी सामग्री उपलब्ध है, वहां आमतौर पर सामग्री का धुवीकरण किया गया है, 4—पिछली विभिन्न योजनाओं में सतत शिक्षा संबंधी जो परिकल्पना की गई थी उसे कार्यरूप नहीं दिया गया है तथा पाठ्यक्रमों की अवधि तथा पाठ्यचर्या के निर्धारण संबंधी निर्णय बहुत तदर्थ आधार पर किए गये हैं, 5— किसी भी स्तर पर तो उपयुक्त प्रकार की शिक्षा सूचना प्रणाली उपलब्ध नहीं है तथा प्रशिक्षण कार्यक्रम के लक्ष्य भाग को पूरा

करने के उद्देश्य से ही संचालित किया जाता है और प्रमुख उद्देश्य निर्धारित तिथि तक धनराशि को खर्च करना मात्र होता है, 6— स्वास्थ्य और परिवार कल्याण संबंधी प्रमोशनल स्कूलों की फैकल्टी को प्राथमिक स्वास्थ्य परिचर्या और बहुउद्देशीय कार्यकर्ता योजना की अवधारणाओं से तथा वर्तमान कार्यक्रमों की रणनीतियों से शायद ही कमी अवगत कराया जाता है, 7— निरीक्षित क्षेत्र प्रशिक्षण (विशेष रूप से शैक्षिक टेक्नोलॉजी के फ्रेमवर्क में) संबंधी बहुत कम प्रयास किए जाते हैं।

HEALTH SERVICES RESEARCH (FOUR DECADES OF EVOLUTION AND ISSUES)

Raj Kumar*

ABSTRACT

Experimental models under HSR needs to have some clear attributes for their comparability and replicability on larger scale. These should have: (i) scientific correctness; (ii) cultural acceptors; and (iii) evolutionary capacity. HSR should include, incorporation of institutions/organisations and personnel beyond the organised health sector. There is a potential for HSR being carried out in the areas of intra-sectoral and inter-sectoral coordination at community level. There is need on communities' participation/involvement for improvement for provisions of health services. The chances of replicability of HSR increase if some action is carried out on multicentric basis. Prioritisation of HSR in future should be on MCH and nutrition, health manpower, referral system and IEC activities particularly, in unorganised health services.

BEFORE INDEPENDENCE

After the British established their rule in India in middle of the 19th century, certain public health measures were taken in form of promulgation of certain laws and acts e.g. Births and Deaths Registration Act, Vaccination Act, Epidemic Diseases Act (Sarda Act), Madras Public Health Act. Drugs Act, etc. The various actions taken were warranted by the nature of the problem and the perception of the rulers. Since most of these activities were regulatory, no strict compliance could be ensured.

BHORE COMMITTEE

A major gift of the British to India, while they were leaving the country, was in form of appointment of the Health Survey and Development Committee (Bhore Committee). More or less coincidental to the Indian independence, the committee submitted its report in 1946 which ultimately became the pillar for development of national plan of health services for the country soon after independence.

AT THE TIME OF INDEPENDENCE

When the British finally left India in 1947 existing health situation gave a gloomy picture, characteristic of any underdeveloped country that time. With a death rate of

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21.4, infant mortality rate of 161 and annual 2 million deaths due to malaria, cholera and smallpox, the situation was further plagued by existence of a meagre 8600 hospitals/dispensaries, 113,000 beds with a mismatch in favour of the urban areas.

FIVE YEAR PLANS AND HEALTH

With a gloomy health situation as described above but armed with the Bhore Committee report in hand, India embarked upon a massive socio-economic development plan, including health, through a five year plan approach. Since the main focus was to tackle the immediate problems on somewhat emergency basis, the following areas were given top priority in these plans.

1. Control/Eradication of the communicable diseases.
2. Strengthening of basic health services through establishment of primary health centres/sub-centres and medical care facilities.
3. Population control.
4. Development of health manpower resources.

INTEGRATED APPROACH IN HEALTH SERVICES DELIVERY

Except for the control/eradication of communicable diseases, the other measures, visualised from a broad angle, reflected the first stage of development viz., 'expansion'. The other stage 'consolidation' was expected to follow the first stage. And this process started in early sixties with the formation of Mudaliar Committee (1962) to survey the progress made in health sector and suggest plan for future development; Chadha Committee (1963) on integration of maintenance phase for malaria control with basic health services and Jungalwalla Committee (1967) on integration of health services. A major landmark in the health services delivery system in the country was adoption of multipurpose workers in place of unipurpose workers following the recommendation of the Kartar Singh Committee Report (1973). This was immediately followed by recognition of the importance of community involvement in delivery of health services, which was translated in the form of the Community Health Volunteer's Scheme (1977).

HEALTH FOR ALL APPROACH

While all the recommendations of such committees followed multiple isolated research activities in different parts of the country, India ushered into an era of a focussed and more objectivised approach in delivery of health services in the remaining part of the country after 1982. This was in form of a commitment to provide 'Health For All by 2000 AD' through primary health care approach. Since independence, the health infrastructure in India was built on the same philosophy of primary health care approach based on Bhore Committee's report no drastic changes in the infrastructure were expected to be incorporated. Rather emphasis was more on measures resulting into effective utilisation of this infrastructure in delivery of health services. Health sector was getting visualised as a system with a

number of interlinked and mutually dependent sub-systems working within it. Importance of IEC activities aimed towards increased demand generation, monitoring and feedback of the activities for further strengthening of the services and intersectoral coordination and collaboration for effective resource management were considered other areas for improving the health services in the country.

HEALTH SERVICES RESEARCH AND INDIAN COUNCIL OF MEDICAL RESEARCH

It was realised soon after independence that to keep pace with the rapid technological advances in the world, India needed adequate inputs in medical research to strengthen the ongoing health activities and meet the changing health demands of the society. Therefore, a nodal agency, Indian Council of Medical Research, was formed in 1949 as per memorandum of association and rules, regulation and bye-laws. The main objectives of ICMR were promotion and financing of medical research to help the health programmes, especially the control of communicable diseases. Realising the importance of health services research in its totality, the objectives of the Council were modified in 1968 following the recommendations of the Review Committee Report. Significant in it was inclusion of the programme of human resource development, promotion of field operational research to develop strategies for delivery of health services and alternative cost effective approaches to health care through sustained and systematic cultivation of Health Systems Research. This was consistent with the newer thrusts advocated by WHO towards systems approach to health care delivery that time.

Health services research, which is the systematic study of the means by which basic medical and other relevant knowledge is brought to bear on the health of individuals and communities under a given set of existing conditions, concentrates on finding practical solutions to immediate problems. One must appreciate the basic difference the health services research has as compared to other types of basic medical research. HSR always has a component of service in it, although this may or may not have been intended in the initial protocol. Conversely, all the health service delivery systems models have an element of research in them in form of experiences gained, although no such component might have been considered while planning or carrying out such activities. This is where the dividing line between the HSR and health services delivery fades off and one is tempted to study the experiences from various models of health service delivery systems as a research experience.

MAJOR SHIFTS IN HSR OVER THE FOUR DECADES

While analysing the health services researches during the last four decades, the following major shifts were clearly observed:

The research in the fifties and early sixties were tuned towards communicable diseases, compared to the one addressing to all types of health and health related problems in the seventies and eighties.

While the initial two decades represented an era of 'prevalence and incidence' studies, the later period had more of 'action research'. A significant thrust in HSR during the seventies was trial of alternative models of delivery systems, both under general health care and under different vertical health programmes.

The experiments about integration of health care services within the health sector (integration of different health programmes) in the late sixties gave rise to multipurpose worker's concept aiming at effective utilisation of basic health services for different national programmes. However, during the eighties, programmes like blindness control, immunisation and leprosy once again introduced some vertical inputs at certain levels.

HSR In India (Examples): Some significant health services researches carried out in the country which have provided useful lessons during the last two decades are:

1. Comprehensive Rural Health Project Jamkhed.
2. Model for delivery of health care services to urban poor, Chetla, Calcutta.
3. Community Involvement in Health Care Programmes, Wardha.
4. Comprehensive Health Project, Rangabelia, West Bengal.
5. Comprehensive Rural Health Project, Holy Family Hospital, Delhi.
6. Use of school teachers in delivery of Primary Health Care, Gandhigram, Tamil Nadu.
7. Alternative Health Guides Schemes in Tamil Nadu, (Mini Health Centres), Jammu & Kashmir (Rehbar-I-Sehat), Meghalaya etc,
8. Community based distribution of contraceptives, Varanasi.
9. Narangwal Rural Health Project - multiple experimental design.
10. Rohtak project on integration of health care delivery, services through multipurpose workers.
11. Private voluntary organisations of health (PVOH) project involving multifaceted delivery systems e.g. milk cooperatives, health centres, eye hospitals, community groups, etc,
12. Nutrition Rehabilitation Project, Madurai.
13. Project Poshak, Baroda.
14. Indo-Dutch Project for Child Welfare, Hyderabad.
15. Agrindus Health Project, Banwasi Seva Ashram, Mirzapur.
16. Nutrition Project, Manikpur, District Banda.
17. Pilot ICDS Projects.

18. Nanjhil Integrated Rural Project for Health and Development, Mathura (NIRPHA).
19. Primary Health Care in rural areas through Medical Colleges, Delhi and Rohtak.
20. Oral rehydration therapy in control of diarrhoea) diseases.
21. Integrated vector control for malaria in Pondicherry, Bangalore. Koraput and Mandla.
22. ICMR operational studies on Maternal and Child Health.
23. Delivery of nutrition and nutrition related services through existing health care system or other sectoral measures.
24. Delivery of mental health services in a district, Bellary. Karnataka.
25. Operational research on mobile eye camps.
26. Operational research in the leprosy and tuberculosis control programme.

CURRENT ISSUES IN HSR

Attributes of a HSR: An experimental model in the health services needs to have some attributes so that it is easily comparable to the other similar models and is replicable on a larger scale. It may be worth considering such experiments within the following spectrum of characteristics: (a) scientific effectiveness (it works); (b) cultural acceptability (it fits into the hands and minds of the people and does not endanger a social fabric that may already be fragile); (c) evolutionary capacity (it can be extended and built upon and is likely to lead to other changes); (d) economic feasibility (it can be afforded within the available resources); and (e) environmental safety.

It may be desirable that a health services research takes into account the above components at the planning stage itself.

BEYOND THE ORGANISED HEALTH SECTOR

The researches at present are aimed at improving the existing formal systems of health. Wider applications of HSR including the following untapped areas may be usefully considered while developing alternative models for health delivery.

1. Incorporation of **private practitioners of medicine** and those of **indigenous systems of medicine** including **folk healers** in delivery of health services - the vast potential and acceptance these groups have in delivery of health services to the community needs to be adequately recognised, appreciated and exploited - sooner the better. Service delivery models encompassing these groups, tried earlier also, need further experimentation, strengthening and incorporation in the national programmes.
2. A large number of village level functionaries from the Government sector are

available at present. In health and social welfare sector alone, five functionaries already exist - VHG, Trained Dai, MPW(F), MPW(M) and AWW. Close cooperation and coordination amongst these can definitely result into a synergistic output. There is thus a potential for HSR being carried out in the areas of ***Inter-sectoral and intra-sectoral coordination at community level.***

3. Experiences have shown that the State can't carry on with increasing load and expenditure in welfare sector including health for unlimited period. There is thus a need for more effective experiments on ***community participation/Involvement/empowerment for provision of health services.***

4. With the continuously increasing levels of knowledge and literacy, awareness for health is generating fast in the general population, especially the urban areas this natural development can be exploited by way of further ***demystifying the medicine*** and more emphasis on the ***domiciliary care.***

MULTIPLICITY OF HSR IN SAME AREAS

During the past, areas like Rohtak and Baster came under criticism due to multiplicity of experiments in the community going on at the same time. Not only there is relative neglect of such efforts in the non-experimental areas, the results obtained from such experiment areas lose their appeal for replicability due to the confounding of a number of key variables.

TOTAL VS PROGRAMME BASED APPROACHES

While some of the HSRs take into account the strengthening of health services in an area as a whole, a large number of others are aimed at improvement of specific health programmes. While studies on health manpower, time motion analysis, referral system and cost-effectiveness broadly fall in the first category, those on operational aspects of immunisation, ORT, mobile eye camps treatment dropouts in leprosy and TB belong to the other category. Relative merits and demerits of the two approaches may be considered.

UNICENTRIC VS MULTICENTRIC STUDIES

The chances of replicability of a HSR increase manifold if same action research is carried out on multicentric basis. It is imperative that more lessons will be learnt from different areas, even, while carrying out the same research in different areas.

COMPUTER APPLICATION AND SIMULATION

With a vast network of hardware and software equipment and expertise available throughout the country, a new tool has become available in the hands of researchers and programme managers. Since, a lot of secondary information keeps flowing in, computers may be effectively used in developing more economical and feasible models of health delivery, and monitoring the implementation, of the programme.

PRIORITISATION THE HSR FOR THE FUTURE

The constraints of the resources and the demands of the time make it essential for a planner/manager to prioritise the areas in HSR for the future. Given below is the list of the areas for culling out the important and more relevant areas for research during the next decade:

MCH and Nutrition: (a) Development of appropriate indicators for operationalising risk approach in MCH; (b) Action research in coordinating functioning of VHGs, Trained Dais, MPWs and AWW in area of MCH and nutrition care delivery; (c) Alternative models of community participation for effective delivery of MCH services through the health functionaries; (d) Strengthening of nutrition education within the framework of health and ICDS infrastructure; and (e) Development of standards of performance for MCH and nutrition personnel.

Epidemiological Services, Communicable Diseases and Community Health: (a) Organisational problems of the agencies involved in the delivery of services for important public health problems with a view to identify the remedial measures; (b) Action research on reorganisation and strengthening of the epidemiological services within the available infrastructure; and (c) Development of MIES for effective monitoring of the disease control/eradication programme.

Health Manpower: (a) Identification of training needs of the existing personnel vis-a-vis existing training infrastructure; (b) Action research on utilisation of the organised health structure in continuing education of the personnel; (c) Work studies and time motion studies for different health functionaries; and (d) Studies on reorganisation of training curricula for basic education based on actual job experiences.

Logistics and Supply: (a) Studies on existing systems of supplies and utilisation with specific reference to the drugs and vaccines; and (b) Action research on alternative models of delivery of vaccines to the workers with a view to manage the cold chain.

Operational Research: (a) Action research on developing a referral system to strengthen primary health care infrastructure; (b) Studies on intersectoral coordination at community, block and district levels; and (c) Operational models for delivery MCH and FW services in urban population.

Use of Computers and Computer Simulation in Health (a) Development of packages for epidemiologic modelling of different programmes; (b) Cost effectiveness of the alternative strategies at different levels; (c) Operational research on computer selected strategy for a programme; and (d) Action research on use of computers for monitoring a health programme at block and State levels.

IEC Activities: Action research on innovative approaches towards communication in health; (b) Action research on effectiveness of IEC through

commercial marketing (social marketing); and (c) Studies on demand generation for health services through different communication channels.

Unorganised Health Sectors' (a) Action research on incorporation of the practitioners of indigenous systems of medicine in delivery of primary health care; and (b) Studies on incorporation of private practitioners in selected aspects of health services delivery - immunisation, ORT, nutrition and family welfare.

Medical Care Services, (a) Studies to develop prototypes of the medical care and health facilities like district hospital, community health centre, primary health centre etc. - physical infrastructure, equipment and facilities, staffing and logistics/supplies; and (b) Action research on identification and development of local expertise for preventive maintenance and repair of medical and other equipment.

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1— स्वास्थ्य सेवा अनुसंधान के अर्न्तगत प्रयोगात्मक मॉडलों में तुलनीयता की दृष्टि से तथा वृहत स्तर पर मानक के रूप में इनका प्रयोग करने के लिए इन मॉडलों में स्पष्ट संलक्षणों का समावेश किया जाना आवश्यक है। 2— इनमें निम्नलिखित संलक्षण होने चाहिए: (क) वैज्ञानिक यथार्तता, (ख) पारम्परिक उपयोक्ता, तथा (ग) वैकासिक क्षमता। 3—स्वास्थ्य सेवा के अर्न्तगत संगठित स्वास्थ्य सेक्टर से अलग क्षेत्रों से सम्बद्ध संस्थानों/संगठनों और कार्मिकों को सम्मिलित किया जाना चाहिए। 4— सामुदायिक स्तर पर, इन्टरसेक्टरल तथा इन्टर-सेक्टरल समन्वयन के क्षेत्र में भी स्वास्थ्य सेवा अनुसंधान किया जा सकता है। 5— स्वास्थ्य सेवाओं की स्थिति में सुधार लाने के लिए सामुदायिक भागीदारी की आवश्यकता है। 6— यदि बहुकेन्द्रिक स्तर पर कोई कार्यवाही की जाए तो स्वास्थ्य सेवा अनुसंधान के प्रयोग के अवसर बढ़ सकते हैं। 7— भविष्य में स्वास्थ्य सेवा अनुसंधान के अर्न्तगत मातृ-शिशु-स्वास्थ्य और पोषण, स्वास्थ्य जनशक्ति, रैफरल प्रणाली तथा सूचना शिक्षा एवं संचार संबंधी गतिविधियों, विशेषकर असंगठित क्षेत्र के स्वास्थ्य सेवाओं संबंधी गतिविधियों को वरीयता प्रदान की जानी चाहिए।

REFERENCES

1. OPERATIONS RESEARCH IN HEALTH SERVICES DELIVERY - *Workshop Report, NIHFW.*
2. EVALUATION OF PRIMARY HEALTH CARE PROGRAMMES IN INDIA – *Workshop Report, ICMR.*
3. REVIEW COMMITTEE Report of the *Indian Council of Medical Research.*
4. PRIVATE VOLUNTARY ORGANISATIONS OF HEALTH, *USAID Project, NIHFW ANNUAL REPORT of the ICMR, 1986-87.*

STATUS OF BIO-MEDICAL RESEARCH

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ABSTRACT

The paper covers the pre and post independence status of biomedical research particularly dividing it during 1947-1960, 1960-70, 1970-80 and current one during 1986-87. The important areas covered were related to communicable diseases, maternal and child health, nutrition, environmental and occupational health, non-communicable disease and also institutional status, including the work of outstanding non-government institutions.

The paper is more of a substantive type, and provides a situational analysis of the field and do not go so much for raising any critical points or issues.

STATUS OF BIOMEDICAL RESEARCH SINCE INDEPENDENCE

In India, Biomedical Research is mainly carried out with support from the Indian Council of Medical Research; Director General of Health Services. Government of India; Council of Scientific and Industrial Research, Department of Science and Technology, University Grants Commission, Department of Biotechnology and other non-governmental organisations like Family Planning Foundation, the group of Tata industries, drug industries etc. Some other institutions, Universities and Medical Colleges carry out research on Biomedical Sciences with their own resources in-built in their funding pattern. However, almost all the research activities in the field of Biomedical Sciences are being coordinated by the Indian Council of Medical Research.

The Indian Research Fund Association was established in 1911. During the 19th century scientists on their own initiative and with limited resources made important contributions to the knowledge of tropical diseases e.g. Lewis on trypanosomes and filaria, Carter on spirilla, leprosy and mycetoma, Macnamara on cholera and Fayrer on snakes and snake-venom. Attempts at organised medical research date back to 1894 when the Indian Medical Congress urged the Government to establish a research Institute. By 1910, the stage was set for the continued furtherance of medical research in India, a chain of Institutes with facilities for medical research was established and a cadre of scientific workers was created. To overcome administrative difficulties the Indian Research Fund Association was founded in 1911 which was subsequently renamed as the Indian Council of Medical Research.

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Post-Independence Era

The activities of the Indian Research Fund Association were augmented immediately after independence. During the initial three years, the status as well as possible expansion of activities were evaluated. A full-time secretary for the Association was appointed in 1948 who was assigned the task of management of the Association as well as planning for reorganization and future development. In 1949, the name of the Association was changed to Indian Council of Medical Research.

Medical Research was almost non-existent in Medical Colleges and Universities. Trained workers in various disciplines of health sciences were also scarce. The burden of research was on a very small group of officers of the Medical Research Department. The laboratory facilities for research were also inadequate and mostly occupied for manufacture of sera and vaccines. New challenges were from changing pattern of ill-health due to diseases. With the new climate of constructive activity for the betterment of socio-economic and living conditions, medical research became a part of nation-building activities and included in the Five Year Plans. The annual grant increased from Rs.12 lakhs in 1947 to Rs.50 lakhs in 1961.

Period of 1947-1961: During the first fifteen years emphasis was laid in creation of manpower for biomedical research with programme for the training of junior member of the staff of medical schools in research methodology and development of several units such as Drug Research Unit, Cardio-vascular Disease Research Units, Polio Research Unit. etc. in the Medical Colleges. The Institute for Virus Research at Poona was established during this period, the Nutrition Research Laboratory (presently the National Institute of Nutrition) shifted from Coonoor to Hyderabad. The Blood Group Reference Centre was established in 1956 at Bombay.

Scenarios During 1960S-1970s: The Council expanded its activity during the sixties as evidenced by the establishment of new permanent institutions, semi-permanent research units and support of new projects and schemes at other Institutions. The Council had seven permanent institutions and nine semipermanent research units in 1969-70. In addition grants to the tune of Rs.43 lakhs were allotted for new research schemes. The strength of permanent research cadre was 105, supernumerary research cadre 15, eminent scientists 10, technical cadre 18, visiting fellows 14, post-doctoral fellows 6, junior fellow 52 and technical fellows 10 in the year 1969-70. In addition, training courses organised during the year included annual certificate course in nutrition (ten international and six national trainees), M.Sc. course in applied nutrition (seven participants), training course in virology (six participants), training courses in amoebiasis (for technicians working in hospitals), training in reproductive biology (ten participants), laboratory animals technicians training course and six fellowships for NIH post-doctoral trainees.

The disciplines in which research was carried out were classified under.

Division of Basic Medical Sciences Anatomy. Biochemistry. Cellular and Molecular Biology. Human Genetics. Immunology and Allergy. Physiology. Pharmacology and Toxicology. Environmental Physiology.

Pathology Clinical and Experimental Oncology and Exfoliative Cytology. Organ Transplantation, Experimental Medicine and Surgery. Occupational Health Research in Medical Education Dental Health. Cardio-vascular Diseases and Hypertension Clinical Endocrinology, Neurology. Urology and Nephrology, Gastroenterology Ophthalmology. Mental Health

Reproductive Biology and Fertility Control: Immunoreproduction. Hormone assays, Contraceptive testing, Endocrine studies on infertile couples, Fertility control with hormonal agents. IUD and surgical methods, screening of antifertility drugs.

Maternal Health. Paediatrics. Nutrition

Clinical Epidemiology and Communicable Diseases, Microbiology. Cholera, Leprosy, Tuberculosis. Virus diseases. Venereal diseases, Environmental hygiene and sanitation.

Status During 1979-1980

The scenario in 1979-80 was not much different from that of 1969-1970 in regard to biomedical research under the auspices of ICMR. The year 1979-80 was important since it was realized at that time that despite significant improvements in public health achieved since independence the scene was a cause for serious concern. The knowledge gained in the past years was not being applied for human benefit. It was felt at that time, application of existing knowledge required operational research for adaptation to the diverse socio-economic and cultural milieu of the society and to make it fit for existing health service delivery system. The resurgence of communicable diseases like malaria, Kala-azar etc. required not only more intensive application of existing technology but also the development of new tools based on advances in modern biology. Serious efforts were made to respond to these challenges and the most able scientists in the country were brought together with those responsible for providing medical and health care services so that the producers of knowledge and the users of that knowledge interact with one another and jointly develop the research strategy.

Task Forces: The Task Force approach has been used extensively in this process so as to formulate specific target-oriented and time bound programmes of research with clear-cut identification of goal and methods. During the year 1979-80 fifty (50) Task Forces were constituted by the Council in several major areas in communicable diseases, reproductive biology (including contraception), nutrition, and non-communicable diseases, involving nearly 400 active working scientists.

Toxicology Review Panel: The ICMR has the responsibility of offering technical opinion for the permission of clinical trials or marketing of a new drug (including any device or vaccine) in the country by the Drugs Controller of India. The Council, therefore, set up a Toxicology Review Panel comprising outstanding experts in the fields of Pharmacology, Toxicology, Pathology, Oncology and other related areas.

Central Ethical Committee: This committee was constituted to formulate guidelines for research requiring experimental observations on human subjects. The Committee comprises outstanding experts in the field of biomedicine apart from the Drugs Controller of India, with a leading legal expert acting as Chairman of the Committee. Research on human subjects was found to be essential for progress in biomedical research and on the other hand such research could lead to some degree of risk to individual volunteers and patients. The Central Ethical Committee was therefore constituted to provide the guidelines for research on human subjects.

Manpower Development: Apart from 16 permanent Institutes/Centres of the ICMR, 169 biomedical Institutes including Medical Colleges, Universities, and research centres received financial support from the ICMR. The Council supported 396 ad hoc research schemes and 265 research fellowships during the year. The Council's Talent Search Scheme has attracted a number of talented young medical graduates from different parts of the country and 60 fellows participated in this scheme of which 16 were in the year 1979-80.

The broad areas of research was more or less the same as identified in earlier years with expansion in certain areas as found to be necessary according to the prevailing health status and problems of the society at that time.

Status During 1986-1987

The ICMR continued its various studies and programmes in biomedical and health research during 1986-87, with particular reference to communicable diseases, contraception, reproductive biology, maternal and child health, nutrition, non-communicable diseases, environmental and occupational health, traditional medicine and also biomedical informatics and communication,

Communicable Diseases: The efforts have been directed towards the development of better diagnostic techniques, improvement of prophylactic measures against vaccine-preventable diseases, improvement of chemotherapy and operationalising the results of research for the benefit of the community.

Bacterial Diseases, Tuberculosis and Chest Diseases: Research in tuberculosis is being carried out mainly at the ICMR Tuberculosis Research Centre (TRC), Madras and also through various projects in other parts of the country.

The TRC, Madras, is investigating intermittent regimens for treatment of pulmonary tuberculosis and in collaboration with Ministry of Health and Family

Welfare working but the introduction and evaluation of short-course regimens for tuberculosis in 18 districts in India.

The trial on BCG in the prevention of tuberculosis completed with 15 years follow-up indicated a limited degree (about 30%) of protection against tuberculosis in children vaccinated during 0-14 years of life. BCG vaccination protected 20 per cent against leprosy.

Leprosy: Leprosy research is being carried out at the Central JALMA Institute for Leprosy (CJIL) at Agra and various other Institutes/Centres in the country e.g. Madras, Chingleput etc.

Several drug trials are being carried out in these centres in addition to studies on drug metabolism, animal experimentation, viability testing, taxonomical studies, genetic recombination studies, evaluation of anti-leprosy vaccines, epidemiology and immunology.

Cholera and other Enteric Diseases Research studies in this area are directed towards strengthening the National Diarrhoeal Disease Control Programme and carried out at the National Institute of Cholera and Enteric Diseases, Calcutta and through several task force projects and *ad hoc* schemes, in different parts of India.

The studies include operationalizing the use of oral rehydration solution and home available fluids in rural areas, development of new phage typing scheme for classification of *V. Cholera* biotype *EITor*, determination of carrier rate of *Campylobacter Jejuni*, antibiogram studies on salmonella and sigella, development of oral rotavirus vaccine and studies on amoebiasis and giardiasis.

Other major bacterial diseases receiving attention are meningococcal meningitis, infections by *Pseudomonas*, *Staphylococcus*, *Streptococcus* and other bacteria and fungi.

The ICMR has launched a major programme on surveillance of AIDS in high-risk groups. Studies on epidemiology and immunodiagnosis of other common sexually transmitted diseases were also continued.

Malaria Studies were continued on vector control, chemotherapy, drug resistance and epidemiology of malaria at the Malaria Research Centre (MRC), Delhi; Vector Control Research Centre, Pondicherry; Centre for Research in Medical Entomology, Madurai, and Regional Medical Research Centres at Bhubaneswar, Dibrugarh and Jabalpur.

Filariasis- The Vector Control Research Centre, Pondicherry and the Regional Medical Research Centre, Bhubaneswar are engaged in research on filariasis.

Leishmaniasis The low priority given to spraying activities in parts of Bihar has resulted in the resurgence of Kala azar. Research on various aspects of this disease

is being carried out at the Rajendra Memorial Research Institute of Medical Sciences. Patna.

Virus Diseases: Research on different viral diseases was continued at National Institute of Virology. Pune; Enterovirus Research Centre. Bombay; Centre for Advanced Research on Virology, Vellore; ICMR Virus Units at the School of Tropical Medicine. Calcutta and NICD. Delhi. Major viral diseases being studied are Japanese encephalitis. Kyasanur Forest Disease, dengue, influenza, poliomyelitis, rabies, viral hepatitis. AIDS etc.

Reproductive Biology and Contraception

Human Reproduction Research Centre (28); IRR. Bombay; Regional Clinical Research Centres (5); Centres for Research in Immunology (6); Centre for Advanced Research in Reproduction (2).

Clinical Research on Contraception: Injectable contraceptives, Subdermal implants. IUD(Cu T380Ag; Cu T200C). Causes of failure of female sterilization

Basic Research in Reproduction: Biologically active peptides (IRR Peptide, peptide of B subunit of hCG, inhibin peptides, follicular fluid protein).

Studies on follicular maturation in monkeys (FSH suppression), production of luteal dysfunction (partial FSH lack), BhCG vaccine, anti-FSH vaccine, riboflavin carrier protein, cloning of gonadotropin genes, development of immunoadjuvants, immunodiagnosis in human reproduction (matched assay reagents and National Quality Control Programme on RIA of reproductive hormones), development of pregnancy detection kits, neuroendocrinology, antifertility action of antiprogesterins (ZK 98299 and ZK 98734 on termination of pregnancy, monkeys), infertility, family welfare services and psychosocial research (reaction to vasectomy, perspectives of natural family planning, evaluation of family welfare and MCH services).

Maternal and Child Health

Operational research in 24 centres, clinical research in 21 centres, Teratogenic effect of MIC at Bhopal. Studies on operation research, breast feeding practices, evaluation of home-based mother's card, management of acute respiratory infections, clinical studies on PGE₂ gel for cervical ripening, PGA₁ in severe pre-eclampsia, evaluation of fetal growth parameters, genetic counselling and antenatal diagnosis of common genetic disorders, prenatal diagnosis of genetic disorders, formulation of registry of congenital malformations.

Nutrition

Studies are continued at National Institute of Nutrition (NIN), Hyderabad; Food and Drug Toxicology Research Centre (FDTRC), Hyderabad; the National Nutrition Monitoring Bureau (NNMB) and its centres and other centres under Task Force formulated projects.

The studies include evaluation of nutritive value of Indian foods, nutrition deficiency diseases, nutritional anaemia, nutritional status in pregnancy, toxicological studies on food contaminants and adulterants and operational studies on nutrient delivery technologies.

Environmental and Occupational Health: Health effects of exposure to MIC at Bhopal. studies on textile workers, occupational health hazards in Transport Workshops, survey of stone quarry workers, studies on pneumoconiosis in coal and mica mines, health status of jute mill workers, air pollution and pesticide toxicology.

Non-communicable Diseases: Oncology through National Cancer Registry Project (NCRP); Cardiovascular diseases (rheumatic fever and rheumatic heart disease; cardiomyopathy, coronary heart disease); mental health (survey of delivery of mental health services at the National Institute for Mental Health and Neurosciences, NIMHANS; schizophrenia, health care of the aged); ophthalmic sciences (cataract epidemiological study, operational research on mobile eye camps); oral health (development of feasibility module for primary prevention of dental caries and gingivitis, indigenous development of stainless steel bands of dental fillers); haematology (thalassaemia, leukaemia, haemophilia); pathology (immunological studies on donovanosis, bullous lesions of the skin. Indian childhood cirrhosis); cell biology and genetics (at the Centre for Advanced Research in Cell Biology and Genetics, IISs, Bangalore).

Number of centres - seven for mental health, ten for oncology, nine for ophthalmic science, five for cardiovascular disease, two for oral health, three for haematology seven for Bhopal gas disaster.

Traditional Medicine: In the revived research efforts in the field of traditional medicine, during the seventh plan period. ICMR has adopted disease-oriented approach, in contrast to drug-oriented approach.

There are six centres for Ksharasootra for anal fistula, four for filariasis three for diabetes mellitus. four for viral hepatitis, five for urolithiasis, seven for bronchial asthma, seven for experimental studies in traditional remedies and four for drug formulation and manufacturing.

Other Institutions/Organisations

The ICMR is mainly responsible for support and coordination of biomedical research in the country and it is evident from the narration above that the infrastructure and areas of research undertaken by ICMR have expanded manifolds in the post-independence period. However, there are other organisations/institutes, medical colleges, universities etc. where research on biomedical sciences has been initiated and expanded during this period.

Institutions Directly under DGHS or Autonomous: The Institutes carrying out research in this field under the Director General of Health Services include the

Central Drugs Laboratory, Central Food Laboratory. Central Indian Pharmacopoeia Laboratory, the Jawaharlal Institute of Post-graduate Medical Education & Research, Central Institute of Psychiatry. All India Institute of Physical Medicine and Rehabilitation, Central Research Institute (Kasauli), National Institute of Communicable Diseases. National Malaria Eradication Programme. Central Leprosy Teaching and Research Institute, Regional Leprosy Training & Research Institute (Raipur), National Tuberculosis Institute (Bangalore). All India Institute of Hygiene and Public Health, BCG Vaccine Laboratory (Guindy) and Food Research and Standardisation Laboratory (Ghaziabad). All this fifteen centres were developed mostly during the post-independence period. In addition, there are three autonomous institutions - the National Institute of Health and Family Welfare. Family Welfare Training and Research Centre and the International Institute for Population Sciences where biomedical research on health and family welfare are being carried out. These institutions are funded totally by the central Ministry of Health and Family Welfare and established during the sixties.

Institutions under the Ministry of Science and Technology: The Council of Scientific and Industrial Research formed after independence established central institutes and centres for research on biomedical sciences at different decades. The first institute established by CSIR is the Central Drug Research Institute which came into existence in 1952. This Institute carried out pioneering research in various fields of communicable and non-communicable diseases as well as in the area of reproductive biology and fertility control. The first Ph.D. thesis on fertility regulation in the country emerged from this institute. The Indian Institute of Experimental Biology and Medicine (renamed as the Indian Institute of Experimental Medicine and more recently as the Indian Institute of Chemical Biology) was established in 1956. Subsequently, other institutions were created like the Institute of Virology at Chandigarh and most recently the Centre for Cellular and Molecular Biology at Hyderabad only few years ago. In addition, considerable research activities in the area of biomedical sciences are being pursued at the Regional Research Laboratories at Jammu, Hyderabad and Jorhat and at the Central Institute of Medicinal Plant at Lucknow. The Department of Science and Technology came into existence in the seventies and focussed its attention in thrust areas of research which included reproductive biology and fertility control as well as different areas of medical sciences. The most recent organisation is the Department of Biotechnology which supports projects like vaccine development etc, and a new institute was established to continue research in this area *i.e.* the National Institute of Immunology.

Defence Research: The Defence Research Organisation also initiated research in this area and to name a few Institute - Defence Institute of Physiology and Allied Sciences. Institute of Aviation Medicine, Institute of Nuclear Medicine and Allied Sciences - where biomedical research is being carried out.

Outstanding Non-Government Institutions: The other institutions carrying out excellent research in this area are the Indian Cancer Research Institute and

organisations. Mrs. Avabai Wadia at the Sixth International Planned Parenthood Conference in 1959 said: "like Arjuna. our Prime Minister is leading a battle against hundred of enemies such as poverty, ignorance, uncontrolled births and other evils and population.... he has given a balanced view of what family planning is and the place of family planning can have in the total programme of the progress of the country. We in the Family Planning Association of India feel, as he has felt that it is not family planning alone that is going to advance our interests but family planning is integral part of the approach-economic and social approach that is to be made on all fronts in order to advance living standards". The goals laid down by Nehru were clear and explicit. The population policy laid down by Nehru laced population and family planning as priority issues but as integral part of development. The severest critics of the family planning programme in India concede that notable progress has been made since 1950s. No doubt much more could have been done. The pace of progress appears to be a part of historical process, economic, social and political environment indifferent regions and to great extent perceptions and attitudes of those responsible for implementation of the programme.

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प्रस्तुत लेख में स्वतन्त्रतापूर्व तथा स्वतन्त्रता के उपरान्त की अवधि में विशेषकर। 1947-60, 1960-70, 1970-80, तथा वर्तमान वर्ष अर्थात् 1986-87 की अवधि के संदर्भ में जैव-चिकित्सकीय अनुसंधान की स्थिति का विवरण प्रस्तुत किया गया है। लेख में जिन महत्वपूर्ण विषयों को कवर किया गया है, उनका संबंध निम्नलिखित विशेष क्षेत्रों से है: 1- संक्रामक रोग, मातृ तथा शिशु स्वास्थ्य, पोषण, पर्यावरण और व्यावसायिक स्वास्थ्य, असंक्रामक रोग तथा संस्थागत स्थिति। इसके साथ-साथ गैर-सरकारी संगठनों के उत्कृष्ट कार्यों पर भी प्रकाश डाला गया है।

प्रस्तुत लेख एक प्रकार से स्थिति सूचक लेख है तथा इसमें संबंधित क्षेत्रों के बारे में स्थितिजन्य विश्लेषण प्रस्तुत किया गया है। इसमें किसी प्रकार के विवेचनात्मक विषय के अधिक नहीं उठाया गया है।

REFERENCES

1. INDIAN RESEARCH FUND ASSOCIATION AND INDIAN COUNCIL OF MEDICAL RESEARCH (1911-1961). **Fifty Years of Progress.**
2. INDIAN COUNCIL OF MEDICAL RESEARCH (1982) **Current Research Thrusts.**
3. ANNUAL REPORTS OF THE DIRECTOR GENERAL, ICMR, NEW DELHI.
4. ANNUAL REPORTS OF CDRI, LUCKNOW