Malaria In Post - Independence India

BINAYAK SEN*

MALARIA is very much on the minds of all those concerned with the health of the Indian people today. The rapidity, with which the disease has resumed its status of one of the leading public health problems of our country, and the self-professed failure of the National Malaria Eradication Campaign, are of grave portent. Moreover, the fact the Malaria control and eradication programmes were products of international collaboration, and that the latter was widely hailed as, the biggest public health programme in the world' give this failure an even more general significance.

Two recent articles in the MFC bulletin have dealt with the question of malaria eradication. I wish to approach to the subject from a different angle, and review the history of malaria in post-independence India. There is little to be gained from an effort to use the benefits of hindsight to pinpoint the blame for the decisions leading to the present debacle. As the director of the National Institute of Communicable Diseases pointed out at the latest conference of the Public Health Association of India, there were no dissenting voices heard at the time when the decisions were taken. However, many people in the last few years have tried to make the case that the failure of the eradication programme was due to various incidental factors, such as changes in the susceptibility of the mosquito to vector-control measures, administrative lapses within the programme, the interference of politicians, or even 'the lack of character of the Indian people!' This-leaves intact the misconceptions upon which the malaria programme as well as certain other programmes in India, are based. It is important to nail these misconceptions so that such large-scale disasters may be avoided in future and efforts to improve the health of the people may proceed along the correct lines.

Malaria Programmes In India

Malaria control in India before independence was largely a combination of personal prophylaxis, including prophylactic medication, and antilarval measures. Covell was the first to use imagicidal measures (i.e. measures directed against the adult stage of the mosquito) on a large, scale, in Delhi and later in Bombay. He used pyrethrum space sprays, in the early 40's. His efforts were notably successful, owing mainly to two circumstances: the ‘unstable’ nature of malaria in both these regions, and the major epidemiological impact of imagicidal measures. However, it was not practicable to use pyrethrum sprays on a large scale or for a long period, as frequent spraying is necessary. The discovery during the Second World War of the persistent insecticidal properties of a deposit of DDT opened the way to large scale control measures, as biannual spraying campaigns were administratively feasible.

In the meanwhile, the Interim Commission, the predecessor of the World Health Organisation, in its report to the First World Health Assembly in 1948, stated that in addition to carrying out the duties of earlier international health agencies, it "was confronted with the task of initiating a direct attack on the diseases which were the principal causes of wastage of human life and effort. Of these malaria, tuberculosis and venereal diseases were regarded as of... paramount importance". While the need for the simultaneous development of the general health services was recognized, the general programme of work of the WHO for the first period (1952-57) acknowledged that "in many cases it has been thought justifiable during the initial stages of development in the organization of

* Associate Fellow, Centre For Social Medicine And Community Health, Jawaharlal Nehru University, New Delhi- 110057.
health activities to start with project, in specialized fields" (quoted in 18).

It was at this time in 1953 that the National Malaria Control Programme was conceived and born, fathered by aid from the U.S. Technical Cooperation Mission, and with the WHO anxiously standing by. The programme called for the phased implementation of intensive DDT spraying operations in heavily malarious areas covering 200 million of the country's population. The objective was to reduce the problem of the magnitude of malaria until it was no longer of major public health significance. The results of this programme by 1957-58 when a population of 160 million was covered by the programme were quite dramatic, as shown by the following malarriometric indices.  

<table>
<thead>
<tr>
<th>Year</th>
<th>Child spleen rate (0/0)</th>
<th>Child parasite rate (0/0)</th>
<th>Infant parasite rate (0/0)</th>
<th>Proportional case rate (0/0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>15.7</td>
<td>4.2</td>
<td>1.6</td>
<td>10.8</td>
</tr>
<tr>
<td>1954</td>
<td>14.2</td>
<td>4.1</td>
<td>1.0</td>
<td>9.8</td>
</tr>
<tr>
<td>1957</td>
<td>0.7</td>
<td>0.1</td>
<td>0.0</td>
<td>0.3</td>
</tr>
<tr>
<td>1958</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The concept of eradication as elaborated and given practical shape by the Rockefeller Foundation, and, within it, largely by Dr. Fred L. Soper, who first applied it from 1930 onwards in eradicating Aedes Aegypti, the mosquito carrier of urban yellow fever, from Central and South America. The essence of the concept was ably expressed by Macdonald: "In both simple and complicated infections, indefinite maintenance of reproduction is an exacting demand. The natural history of infection or of any biological complex usually includes the restriction of this continued chain of transmission to certain localities where conditions are particularly favourable. It follows that if the general distribution of an infection can first be brought under effective restraint and the primary foci then sought out and controlled, the whole complex can be terminated."

Eradication of malaria professedly by using residual insecticides had been attempted and had even been achieved in several countries or large regions before the general acceptance of the eradication concept in 1955. At that time it was observed that in some areas the mosquito became resistant to the insecticide then in use. The Eighth World Health Assembly decided on an all out effort before it was too late, and thus organised eradication came in to being.

Emboldened by the success of the National Malaria Control Programme and under the influence of these foreign imperatives, the Indian government launched Programme. It was to be a vertical time-bound programme divided into attack, consolidation and maintenance phases. The need for a preparatory phase was obviated by the preceding control programme which had presumably demonstrated the operational feasibility of the eradication procedure. The attack phase, to consist of universal spraying of DDT, would bring the 'general distribution' of the disease 'under effective restraint' by interrupting transmission. During the consolidation phase the 'primary foci' of disease would be sought out and destroyed by means of active and passive surveillance, radical treatment, epidemiological investigation and focal spraying. Ultimately it was envisaged that there would be no human plasmodia left in India, so that it would be possible to have anophelism without parasitism, that is, absence of disease even in the presence of vectors.

Initially the eradication programme continued to enjoy the success which had attended the efforts of the control programme. By 1960-61 the malarriometric indices of child spleen rate, child parasite rate and infant parasite rate had fallen to 0.7, 0.1 and 0.04 per cent respectively. Following this the annual parasite incidence was adopted as a more sensitive index of malaria in a locality. At this time in some other parts of the world malaria eradication programmes had run afoot of the absence of general health services. In 1963, the Chaddha Committee was formed to consider "not only the present position regarding the malaria eradication operation, but also the maturity of the health organization to take over such activities as are required during the maintenance phase; to assess measures necessary to ensure smooth running of the vigilance services subsequent to the demobilisation of the special organization established for eradication of the disease; and to formulate plans for the maintenance phase". The need to develop a rural health infrastructure was realised only in 1960, when the WHO recommended it. The Chaddha Committee considered it imperative "that, in addition to the establishment of rural health centres, dispensaries and hospitals, some form of multipurpose domiciliary health service is necessary as an intrinsic part of the basic health services to ensure total coverage." To this end the committee recommended the establishment of one subcentre, staffed by an auxiliary nurse midwife and a health assistant, for each 10,000 population as an interim measure and ultimately for each 5000 population.

Unfortunately, at this stage, the lopsided family planning policy of the government of India, which considered population limitation a pre-requisite to development rather than the other way round, interrupted
the implementation of the recommendation of the Chaddha Committee. The advent of the IUCD and the target oriented family planning organisation it brought in its wake, culminated in the Mukherji Committee report on IUCD of 1966\(^6\) and on the basic health services on 1967\(^7\) With the implementation of the recommendations of these Committees, a vertical family planning service with the top priority in resource allocation and administrative attention was formed. The other components of the health services, including the consolidation and maintenance activities of the malaria eradication programme inevitably suffered as a consequence.

From 1962-64, there were focal outbreaks in the consolidation and maintenance phase areas, especially in some units in Madhya Pradesh, Gujarat, parts of Rajasthan, Maharashtra and U. P. Some unit areas temporarily reverted to attack phase activities on an ad hoc basis from 1965 onwards. In 1968, 71.38 units were 'rephased' i. e. officially reverted to the attack phase. Inspite this, the incidence of malaria kept rising in India.

**Programme Evaluation**

Beginning with the Madhok Committee in 1969\(^9\) a number of bodies were constituted which tried to identify some factors in the malaria eradication programme responsible for its lack of success. Among them were an international group of experts who made an enquiry in depth into the National Malaria Eradication Programme and submitted their report in 1970\(^10\), and the second in-depth evaluation committee. 1974\(^10\). They identified a number of factors as being responsible for the setbacks suffered by the programme. The important factors identified by them have been summarised in the working notes on an alternative strategy for the National Malaria Eradication Programme\(^12\). A brief account of these factors has also been given in Park's Textbook of Preventive and Social Medicine\(^13\).

Despite the remedial measures taken after these factors were identified, the problem of malaria continued to expand. As a result, a consultative committee of experts was formed, which submitted its recommendations in 1974\(^14\). They recommended that the goal of eradication be abandoned for the present and a strategy of 'effective control' should be adopted. A description of the proposed strategy is available in Park's Textbook and will not be gone into here. The Government has already decided to implement the revised strategy from 1977.

While many of the committees that enquired in to the failure of the malaria eradication programme were competent in themselves, they failed in one impor-

**Misconceptions In The Programme**

The first misconception is that which led to an exclusive dependence on imagicidal measures. On theoretical considerations, as well as in actual practice, imagicidal measures are the single most effective measure to reduce malaria transmission.

The use of the potent insecticidal properties of DDT as the sole component in antimalarial campaigns was in keeping with the 'magic bullet' paradigm which grew out of the germ theory of disease\(^15\). The large scale control programmes which were begun in the 1950's in fact gambled on the continued potency of DDT. On the other hand, as we have seen, the eradication programmes owed their origin in part to the appearance of insecticide resistance. It was hoped that while the vector still remained sensitive to the insecticide, eradication would obviate the need for permanent vector control.

A consideration of the natural history of the mosquito\(^16\) will show that the ecological requirements, and especially the physical characteristics of the environment, are much more stringent at the larval than at the imaginal stage. In part this is because of the mobility and much great behavioural complexity, of the imago. It follows that mosquitoes can adapt much more easily to hazards which endanger the survival of the adult than to those which have a similar effect on larva. Hence long term vector control programmes must depend more on measures directed against the larva than against the imago. Such measures include drainage schemes, changes in agricultural practices, cultivation of larval predators and other ecological manipulations, as well as specific antilarval measures. While these are more expensive than specific imagicidal procedures, they are more economical in the long run because: (a) they are labour intensive; (b) they possess long-term efficacy; (c) they use indigenous locally available technology\(^17\).

The second misconception is that which resulted in the employment of a 'mass campaign' strategy for the eradication of malaria. The classical justification for mass campaigns\(^18\), is that developing countries should not be deprived of the benefits of available technology because their general health
services are not sufficiently developed.

A little thought about Soper's concept of eradication will show that the essential difference between eradication' and control is the elimination of the primary foci of disease. In malaria the primary foci are the cases of latent and manifest 'carrier' infection that persist beyond the interruption of transmission. The techniques for dealing with such cases have been known for some time; what is needed is a pervasive delivery system that would be able to cover the entire population and tackle the 'primary foci' in their homes. The advent of a new technique for the interruption of transmission has not altered this orientation in any way. In fact, the most economical way to develop such a pervasive coverage would have been to give first priority to the development of an effective general health service.

The third misconception is that mass campaigns, in any form, are relevant solutions for the health needs of the developing countries. The case for mass campaigns has already been presented in some detail in Gonzalvez's monograph. Although he does emphasize the importance of concurrent development of the general health services, he concludes that mass campaigns do have a place in the health plans of developing nations. The resource constraints that characterise these nations are well known. Hence it is obvious that planning is unavoidably linked with the making of choices-in these cases, between mass campaigns and general health services.

The idea that health is one result of a complex interaction between man and his total physical, socioeconomic and political environment is one to which lip-service is paid at most meetings of health workers today. The elimination of one of the factors in this interaction is unlikely to result in a significant decrease in the quantum of suffering that the poorest and most vulnerable sections of the population have to undergo. In this context, to attempt to justify mass campaigns on grounds of cost-benefits, increased productivity etc. is merely to beg the question.

It is only a broad-based programme of general preventive and curative services, available to and inviting the participation of all the people, which can hope to succeed. In turn, it is only when such a programme is part of an even larger programme of social and economic change that it can hope to bring about a genuine and lasting change in the people's health.

NOTES:
Consultative Committee of Experts to Determine Alternative Strategies Under National Malaria Eradication Programme.

15. The magic bullet of Ehrlich was a natural corollary of the germ theory of disease developed by Koch and Pasteur. According to the latter, disease was a result of the activity of specific noxious agents acting in the body. Ehrlich dreamed of magic bullets which would specifically neutralise these agents, and developed the use of arsenicals in the treatment of syphilis. The magic bullet paradigm reached its apotheosis in the development of sulphonamides by Domagk and subsequently of antibiotics. As the history of infectious disease treatment shows, this false god has speedily been dethroned. See Paul de Kruif, 'Microbe Hunters' Jonathan Cape (London, 1927).


17. The new developments in vector-control methods, such as genetic control, and the search for new types of biological control agents, have yet to be properly assessed as to their practical applicability. Whatever their scope, they would have to fulfill the criteria mentioned. Failing this, they would once again become restricted in use to urban and better developed areas of the country. See Knipling E.F. et al (1968) Genetic Control of Insects of Public Health Importance, Bull. World. Hlth Org. 38:421. In India, there is an excess of available labour but capital expenditure is difficult. Moreover, long term strategies are essential as malaria will not be eradicated in the near future. Measures which fulfill these criteria, therefore, are to be preferred in the prevalent socio-economic conditions in this country. However, such measures, if they are to be successful, would require a degree of popular participation which may be difficult to attain given the present social structure. It is impossible for malaria programmes to succeed unless they have a solid social basis.


19. The possible-employment in the near future of an effective vaccine against malaria holds out her promise for its control. However, the proper use of this vaccine will depend on the state of the general health services at the time.

**KNOWLEDGE IS CONFUSION!**

Manu Kothari and Lopa Mehta

Modern Medicine (MM) is under attack - recently by Platt, Illich and Co. Lord Platt's autobiography Private and Controversial abounds in "How to Avoid" MM. Illich's indictment is now a byword. Malleson's book Ned Your Doctor Be So Useless? puts MM in its place. MM continues its sinister march, regardless. Why? The way medical students are taught and assessed may have a significant role to play.

The climactic moment in the life of a medical student, undergraduate or postgraduate, comes when he sits for the qualifying examination which is ipso facto a story of blow for blow, tit for tat: For every question asked the student dishes out an answer. The indoctrination, which began in the medical school, that every medical question has an answer reaches its high mark. An apogee of such examinational indoctrination is the multiple-choice system epitomized by the ECFMG. Not only is there an answer for every question but a wide choice as well. Tragically, this tit-for-tat grooming breeds a code of medical practice where in the path of Martha-the urge to action-overrides the path of Mary-the need to contemplate to the point of inaction, the only way to the Hippocratic ideal of primum non nocere,

The something-can/must-always-be-done milieu that a medical student grows up in, arms him with a conviction that every complaint or illness-from dyspepsia to death-has an appropriate and effective remedial measure. In Pavlovian terms, investigation/prescription/operation becomes a conditioned-reflex-response of the physician to the presence of a patient, nurtured by the illusion that anything done for the patient must be good for the patient. The word cure connoting, a la MM, "successful remedial treatment" represents the ultima Thule of such arrogance. Oliver Wendell Holmes described his teacher Jackson as one who never talked of curing a patient “except in its true etymological sense (L. curatio, from cura meaning care) of taking care of him.” Holmes rightly went to the extent of generalizing that "the doctor who talks of curing his patients belongs to the class of practitioners known in our common speech as quacks."

A direct spin off from the dogma of action is the sale ability of the action as a commodity called medical service. It shouldn't be surprising that the motto of a powerful medical association is: Fee-for-service.

Ψ Professor of Anatomy and Assistant Professor of Anatomy respectively, Sheth G.S. Medical College, Bombay-400012.
The Fee-for-service principle, in an affluent or a tottering economy, fosters a “must-do-something” relationship between a physician and his patient: The physician does-investigate, diagnose, treat and the patient pays. Like many items in modern consumerism, “medical service” it often sold not because a patient sorely needs it, but because there is a buyer capable, financially, of taking it. Forces promoting the foregoing are typified by the glossy, colorful and costly, cartons and pamphlets of pharmaceutical firms, promising as in *Tono Bungay*, to cure this and cure that by a preparation boasting of 14 vitamins and 8 minerals, in *forte* concentrations that eventually are thrown out in urine to nourish and fatten the rats in the city sewers. In the USA it is said, the chief indication for the removal of an organ is the presence of that organ. John Bunker, in a 1970 expose of "A comparison of Operations and Surgeons in the United States and in England and Wales," showed that the fee-for-service principle contributed to the vastly greater number of operations in the United States. "Given the choice of administrating or withholding therapy, whether the therapy is prescribing drugs or performing an operation, the American physician is likely to choose active therapy" (Bunker). In the absence of the remunerative incentive, Bunker remarked, many things not essential may not have been performed. Things in Madras or Bombay are not different. It is money that makes the mare of MM run, the way it does.

The patient, the buyer of medical service, stands equally to blame: He is willing to pay only for something that is actively done - a prescription or an operation.iatrogeny — harm from medical advice, investigation or treatment — has its roots as much in the willingness of the patient to buy medical service as in the doctor's readiness to sell it.

Yet one more side effect of MM's hubris called every-question-has-an-answer is the progressive emergence and dominance of *medical technocracy* evolved out of .what Gene Marine calls *the engineering mentality*: "It comes about because, somehow, Americans (followed by all other countries) have become fascinated with technique as the answer to everything. Our dawn and twilight devotions are in homage to know-how, and the straight-line solution is our way of dealing with the, questions of life, from seduction to South Vietnam. For example, until recently patients of cardiogenic shock were given vasopressors to raise the blood pressure, and the blood pressure rose strikingly to the satisfaction of all concerned "except of the patients, who died." The story does not end with this. So often, the medical technocrat only knows that it is the technique and not the outcome about which he is so sure. And it is natural that he does not use on him what he is too ready to use on a patient. A telling example of this is the surgical treatment of peptic ulcer. Over the years, the authors have seen, at the hospital attached to their place of work, patient young and old being gastrectomized or vagotomized for peptic ulcer, but they have yet to see a physician-peptic ulcer being so common among city practitioners - going under the stomach-sacrificing or the vagicuting knife of the surgeon. Alvarez has remarked in his autobiography that while, during his 25 years at the Mayo clinic, operations for peptic ulcer were a daily routine, he never saw a single doctor with peptic ulcer submitting himself to "curative" surgery.

A time has come to shatter the long cherished illusion, nursed by the doctors and their patients alike that MM knows and therefore has the right answers to all the questions. The cliche that knowledge is power works out differently for problems medical Knowledge is confusion. Take for example, diabetes mellitus Boyd, aphorises that "the more we know about diabetes, the less we seem to understand it." In place of diabetes, you could put cancer, hypertension, heart attack and what have you, and be dead, right. Hambling, a leukaemologist, draws a cogent picture in the BMJ (3:407, 1974):" Leukemia is a frustrating disease.... In a life geared to examinations, where questions have answers, one is apt to become self-critical when the patient poses problems that cannot be answered, when no matter how much ingenuity one employs one's treatment kills the patient and not the disease.... The path to sanity is marked by the realization that some problems have no answers." A compound word, German-style, *formanydiseaseswehavenoremedyatall*, sum up the whole situation.

Every medical college ought to have a Department of Non-knowledge which keeps on telling the student of MM's rank ignorance about outstanding problem and about the proposed therapeutic solutions. Platt, Illich and Malleson could be profitably read by students while in the above department, along with say, Dubos's *Mirage of Health, Utopias, Progress and Biological Change*, and Burnet's *Genes, Dreams and Reality* which is a cogent summing up of MM's scope and limitations. Such an arrangement would eventually teach the medical and the lay that good medical education is one where the student learns that many problems posed by MM are non-questions that can only have non-answers. At graduation, beside the Hippocratic oath that a student is made to read, he should also be given a copy of a litany by Sir Robert Hutchison:

**From inability to let well alone;**
**from too much zeal for the new and contempt for what is old; from potting knowledge**
Few Points to Ponder Over....

Ragini Prem *

While I was traveling through Europe and was trying to understand their health programmes and the health insurance scheme etc. I made the following observations.

1. Despite the prevailing affluence, fulfillment of basic needs, education, health insurance and free medical services, they still need health educators, child and parent guidance clinics, check-up clinics each for a special category of population etc. Actually, once the social conditions are so organized that the basic health needs of the community are met with and there is education in the society, the requirement for the medical personnel should go down. Only thing which would be required is the proper medical facility. On the other hand the number of various categories of medico-scientific workers, visiting nurses, educators etc. etc. as well as doctors seemed to be increasing in the developed countries.

2. Another question which arises in the above context is, will the health education activity be required by the community indefinitely? Because I assume that health education if carried out effectively, it should get absorbed into the culture of the community and get transmitted from generation to generation as health norms. If such a thing is not happening it means either the education is ineffective or there is no communication between, the two successive generations. In fact I found both these factors existing in the community of the developed countries. The educators often meet with indifference on the part of their clients. This indifference is there because the educators are neither familiar with the client nor have they enough experience of life. Further they get accustomed to working under departmental directive on a set pattern of work without adaptability to local needs. The gap in two generations is created as a result of norms of education, personal freedom and such other modes of living. Thus the need for health education programme exists for ever.

3. Employment opportunity is diminishing in the developed countries. They have replaced daily manual work by introducing industry at various levels. Further new norms created in the community, like hard physical work is inhuman and degrading, progress means increasing affluence etc. motivate the educated to try for service and the assured security of progress, rather than enter into an enterprise. There are many who in the absence of such an opportunity prefers to remain unemployed and explore the welfare nature of administration. In a developed country like Sweden fresh agricultural graduates are posted with farmers as extension educators and what do they do there? Only a very few those who do away with their pride are able to contribute to the knowledge of the farmers. But then they are also learning from the farmers and working with him.

Such examples as the above gave me a feeling that extension educators of various nature and the different types of social workers employed is one way of providing employment to the educated. But how long can such a policy be sustained?

4. The idea of preventing an illness appeared to be stretched too much. The new norm of prevention and guarding against the loss of man days or working days has led to increased consumption of the drugs like antibiotics, analgesics, vitamins etc. This has resulted in body getting used to drugs and losing its natural capacities of repair and valuable drugs losing their affinity and manifestation of toxicity.

5. The preventive vaccinations etc. were too well organized in Sweden. Being a small country she has succeeded in maintaining a detailed card

---

* Vanvasi Seva Ashram, Govindpur, U.P. - 231 221
for each individual and has been conducting the programme efficiently. But there are already toxic manifestations of it in the community and people have started objecting to it. Such information’s are censored and the experts in authority do not volunteer to discuss these findings, keeping them secrets in public interest. This is a thought provoking situation. How does the risk involved in maintaining health artificially compare with the risk of falling ill? Can we really escape from falling ill at all? Even if one can escape illness in this way what constraints will it impose on human life? Will it not be something like the atmosphere of happiness created in the palace for the king Siddhartha?

6. These days there is much talk about the preventive medicine, and the insignificance of the treatment of ailment. Do we mean that if the preventive work is hundred percent effective, there will be no suffering? If that is what we mean, we are wrong. We don't have preventive measures against coughs and colds, digestive upsets, psychological maladjustments, injuries etc. Apart from these illnesses there are a number of health hazards ever increasing due to modern living. All these illnesses need relief as well as care. Actually, advice for prevention will only be accepted by the community when the people meet with sympathetic treatment during their suffering.

7. A character of the developed community which occured to me was very typical -its total dependence on the institutions and the Government for the various needs in life. The most common ones are like, nursing a child in its growth and development, learning, cooking, washing house keeping etc. and other matters like caring for the parents the occasions of stress and strain in life, the use of leisure etc. The whole society appeared to be moving round the idea of individual freedom and institutional care. A neighbours relative and community are not meaningful any more. The relations between them are more on business lines. If some body looks after a child of neighbours he receives money for it. The whole action gets translated into money; love, sympathy and affection getting eliminated. In the pursuit of individual freedom and institutional care the developed community has lost the peace and tranquility of mind. This they have realized and is overweighing their minds. And this fact they reveal (as a voluntary compulsion) only when they meet with an informal atmosphere. Officially, they advocate to the developing countries adoption of various welfare programmes like 'under five clinic' 'family life guidance clinics,' 'nutrition supplementing programmes'. The intensive and exhaustive health programmes are likely to take away the initiative and pride of the individual and the community and would lead to disintegration.

Dear Friend,

Needed New Managers for Medical Colleges

Read two letters on the Managers for Medical Colleges. Administration is not only a fine art but a science also. It involves many things, such as first hand information of the subject, human relation ship, salesmanship, team spirit and so on.

Hospital administration in these days is not only difficult, it is impossible. You cannot get the good staff you require. You can not pay higher salaries. You cannot punish the erring staff members. You know, some of them are thieves and thugs but you cannot charge-sheet them nor can you drive them out. Members from the nursing staff are eager for the pay packet, not for the work. You cannot rely on their efficiency and every time have to act as a supervisor. Gossiping against a strict boss, writing anonymous letters to higher authorities against you and adopting • go slow’ tactics make any administrator nervous. Political interference and pressurization is so much that no administrator can honestly remain faithful to the patients and their welfare.

In nutshell, let us forget the term ‘good' administration. We should be happy, the institute runs. For better administration look at the missionary organisations. Please note they refuse any Government grant. That is the secret of good administration.

—Damodar V. Nene, Vadodara