

## HEALTH INSURANCE IN INDIA\*

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### ABSTRACT

*Health insurance is a part of a larger business set-up and tends to remain a loss leader in the initial stages and can become viable only in urban context with large-scale risk pooling and effective demand. These experiments do not convey in full measure the potential of insurance to risk pooling, community rating and controlled administrative costs, limited exclusions and co-payments. Health insurance properly developed and regulated can act as a bridge between patients and providers balancing quality care at reasonable costs with an effective and accountable health care. We need big players as insurers with staying power and competence to deal with large risk pooling and innovative product.*

*In this article, therefore, the author analyses various issues concerning health insurance in India.*

**Keywords:** Economic reforms, Co-payments, Capital adequacy, Social audit, Regulatory arrangements, Self-regulation.

Health insurance is becoming an important supplementary instrument to health care financing in many countries. The earlier pattern, as in Bismarckian Germany or UK/NHS was Government-led, financed from general taxation and aimed at comprehensive cover. In recent decades, however, private voluntary health insurance has become a growing phenomenon in many countries. This is partly due to rising incomes and partly due to increasing dissatisfaction with publicly financed (and often publicly delivered) health care services. This is the case with India too exacerbated during its structural adjustment period. As a rule, in developing countries, private health insurance starts among large white-collar multi-national companies and percolates downwards especially to those seeking group coverage. We should not forget, however, that side by side informal insurance arrangements had existed among many communities often as a result of experiments conducted by NGOs in rural risk reduction strategies based on the inborn sense of prudence of the poor and community solidarity. In several set

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\*Key-Note Address delivered in the National Seminar on 'Development of Health Insurance in India: Current Status and Future Directions', held in the Institute during December 29-30, 2000.

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up either in the public or private sector, often as a business, it is seen to be a loss leader due to the small scale of its risk pool. In some cases, it cannot flourish due to the slow development of associated health infrastructure and procedures. Government led systems do sometimes cover beyond curative hospitalised care; in general, most private insurances arrangement do not if they are financial insurers. As regards managed care however, both curative and preventive are often accommodated within the cap fixed under the scheme. It is not possible to look at the growth of health insurance in a country without considering the background of its health care arrangement, covering, provision, financing and regulation. Whenever health insurance has succeeded by a combination of fair conduct, business efficiencies and relevant social imagination, it has been more than a mere supplement to publicly met health care financing. On one hand, its impact on provision and financing can lead to improvement in the quality of care. On the other its impact on financing and regulation can sometimes lead to more transparent accountability in rendering care. No one can deny that in the present health scene in most countries, greater professional accountability and better standards of quality care are key gaps and also complex issues that wait balanced resolution.

Health care systems evolve over time as a result of historical factors under the influence of economic and social factors. Their effectiveness depends on reliable infrastructure and just procedures for access and concern for patient satisfaction. Only at a mature stage of development health care does become a political issue with competing redistributive equities as in the case of UK and USA. By the same token, one can see that they seldom become substantive priority political issues in developing countries. Health care systems also evolve as a balance between the health status and needs of the community, the functioning effectiveness of its health infrastructure, sustainable financing framework and the extent of congruent perceptions about health amongst patients, physicians, planners and politicians. A substantial long-term convergence among these diverse factors is not easily achieved nor sustained unless constantly striven for. When the National Health Policy was formulated in 1983, there was a worldwide commitment to the PHC approach for achieving health for all. But by the end of the eighties the fervour had ebbed due to financial constraints and lack of political will. The PHC approach was found to be too demanding as any approach based on self-reliance and social justice is bound to be. With the loss of momentum, no consistent strategy for implementation got worked out. Policies and programmes to attain few demographic and health targets set for 2000 in full needed more committed resources, social imagination and tenacious political will. While we should not denigrate the substantial achievements in health care, it must be admitted that we are left with an incomplete and largely under-funded primary health service in rural areas with a backlog in remote areas. Besides, there was an under-

estimation of recurrent costs to make the set-up work and no conclusive dialogue with the professionals to make the rural health care arrangements work in remote areas.

There is also the problem of differing perceptions about what constitutes health and well being, and about utilisation of facilities between people and professionals/planners. These differ according to social class, degree of awareness, education levels and other cultural patterns. A substantial section of the people seek care through indigenous systems of medicine including from many who variously are called rural doctors or less than qualified doctors, but all these cater to a large clientele at lower cost - often with quality compromised. Over four decades of planning we have not been able to take a view as to how to promote a workable system across this real divide. How do we retain and build upon the indigenous system also in a period when the insurer will determine the "appropriate" system of medicine and the professional lobbies will be active? A final point to note is the near universal abandonment of the Primary Health Care Approach on grounds of non-affordability in many countries has coincided with an international groundswell of opinion favouring market-based solutions in social policies, especially after the dismantlement and collapse of the Soviet Union and as part of the Washington consensus of a market led economic growth supported by a minimalist State or a State in retreat.

We have been witnessing during the last few years the elaboration of economic reforms of 1991 in the health sector. The public sector has been under-funded as a result of fiscal compression going on for some years - sometimes accompanied by denigration of public provision. Some of it may be justified as recurrent costs in these public entities are seldom met in full. Naturally, the free service rendered in public hospitals is no longer a fact and has become a trigger for lowering of quality and attention. There is no effective regulation or self-regulation of private provision of care to ensure accountability or reasonable value for money or assurance of relevance and quality. In this climate of liberalisation and little regulation, corporate hospitals have become an attractive proposition as a good return to investment by medical entrepreneurs in modern technology and equipment but all technological advances in medicine have a tendency to push up costs of care unlike other sectors where technology has reduced costs. Not so in medical care, where technology has been used only to reduce the physician's uncertainties in diagnosis and care. As a result medical technology has acquired a momentum of its own, "a sorcerer's broom" as it were in a competitive environment. It stands supported by high cost education, premature specialisation and training in high-tech equipment use. The result has been an explosive increase in medical care costs, and uneven attention, sometimes unnecessary prescriptions and tests - the end effect of which is attention given only to capacity to pay.

We are also witnessing an epidemiological polarisation by class, region and sometimes by gender. This is evident from the prevalence of both non-communicable and communicable diseases in the same class, region or community or many instances of recrudescence of epidemic controlled earlier or in disease directly attributable to poverty accentuated by environmental degradation. On the demographic front the ageing of the population as well as the persistent malnutrition among children will be serious problems ahead. The NFHS-II has clearly brought out the marked regional variations between the littoral, the border and the main land Indian States showing great disparities in health care services affecting fertility and mortality and it seems that this disparity in demographic pattern is unlikely to disappear over next few decades. It is in this context that we should consider the health insurance firmly founded as a support to a sustainable health care system in India. On a narrow view it could merely be limited to reimbursement of hospitalisation charges for medical care. At a broader level, it should develop a health care system, which pays equal attention as much to curative services as to public health and preventive functions. At a more inclusive level a mature health insurance system should assist in the creation of a need-based health system with both public and private provisions and backed by a sound referral link to cover needs of vast rural areas. At present we do not have any social insurance in India, nor a social security envelop into which health insurance can be put in. In most countries social security structure has accommodated health insurance, but in India we have to fall back on mandated benefits viz., government has so far covered only workers under ESI and Central Government Employees under CGHS. Both have met with mixed success due to design problems and bureaucratic control, rent seeking behaviour of provider and also total absence of organisational innovation in such old schemes. For instance, the CGHS could be converted into a set of autonomous trusts which could manage the service professionally and charge appropriate user fee. This would be the beginning of a social insurance system which will leave the government to make an explicit capital contribution, if necessary, and keep away from control. The coverage under ESI could similarly be regionalised so that decentralised control becomes possible and the local organisational pattern reflects professional and accountable management and ownership by the beneficiaries.

What stands in the way is a mind set: the result of a centralising tendency that has always informed health care arrangements in India right from the Bhole Committee down to the current centrally sponsored sector approach under the plan. The model has always been to develop a National Health Service as in UK. The time has come to consider whether the exclusive focus on government as the key actor in policy, financing and management of health care services should remain or whether private provision be allowed to supplement, compete or set a standard with public provision to ensure motivated efficiency

and quality of public services. In our public sector the GIC's Mediclaim has not succeeded partly because it was narrowly conceived to cover hospital charges and contained too many exclusions and did not take into account real need for the aged, elderly and illiterate. We have some examples of voluntary sector experiences like VHS, Wardha, Kasturba, etc. But these risk sharing rural experiments have a limited population cover, with low cost recovery and somewhat limited success in covering the poorest. All in all the applicability of such experiments except as path breaking learning has remained limited. Health insurance is part of a larger business set-up and tends to remain a loss leader in the initial stages and can become viable only in urban context with large-scale risk pooling and effective demand. These experiments do not convey in full measure the potential of insurance to risk pooling, community rating and controlled administrative costs, limited exclusions and co-payments. Properly developed and regulated health insurance can act as a bridge between patients and providers balancing quality care at reasonable costs with effective and accountable health care. We need big players as insurers with staying power and competence to deal with large risk pooling and innovative product. It is in this context that we should welcome the creation of an Insurance Regulatory and Development Authority and the new policy to open up the insurance sector to private and foreign capital. This has created a new opportunity for the sound growth of health insurance. This depends on how the regulatory authority can reconcile the imperatives of fair and efficient business with larger developmental policy goals of government. This is a task calling for not merely financial regulation as to solvency, capital adequacy, etc. but also for a sensitive look at the realities of health care and associated equity issues arising from health care as it is delivered in practice. Further, as pluralistic systems of medical care will continue to serve large population, it must encourage experimentation and design of innovative products to make insurance protection, congruent with people's practices and beliefs on health and well being. It must be conceded that this would be an arduous many-sided task and a unique first effort.

Any private insurance market developed on a competitive basis has many advantages over a purely public system of health care financing or even a purely out of pocket system draining out people. It distributes risk and can allow government to develop targeted system to finance health care to those who cannot access private insurance for any reason. It can help health providers build infrastructure and amortize investment over a long period without pushing up fee for services. It can innovate and develop new products in financing and delivering and can provide a referral point for quality improvement in public systems by leading the way. But, there are bound to be problems with private insurance such as its lack of reach to low income people, the tendency to concentrate on the urban paying areas with low risk and the likely capture of insurance companies by large providers - as has happened elsewhere. What we are then likely to see

is a repetition of the health care system itself, which has tended to create an exclusive two-tier system separately for those who can and those who cannot pay. As the voluntary sector can never replace the government services, the private health insurance can only be a part of the system with mandated benefits.

What then is the government's role in regulation of health insurance? Clearly there are three tasks for the government regulator- to maintain a stable and viable insurance market, to protect and safeguard the consumers' interest and to improve the fairness of private insurance. On the first task, laying down and monitoring financial standards for market entry, ethical standards for fair insurance practice and appropriate conditions for exist from the market without fraud or malpractice are matters of great importance. Appropriate licensing, standards of financial soundness, solvency regulation, acceptable accounting and actuarial practices should be laid down. There is also larger problem of the extent of foreign investment in such long-term market. It is necessary to develop suitable oversight arrangements for periodic inspection, etc. But the other two tasks viz., consumer protection and fair practice are important for the development of health insurance as a long-term support to the improvement of the health of population. Two aspects of consumer protection require attention. First, proper guidance to the consumer about various technical features and indeed language of the contract so that there is informed acceptance of the offer. Many health plans contain provision for co-insurance, co-payment, limit on coverage, etc. These should be stated in clear language and honest marketing must prevail. The experience with SEBI in regard to protection of share-holders in the stock market is a parallel and in some senses it is a sobering thought because of the size of the problem, considering the large number who will seek health care at different levels of risk. Secondly, consumer protection can be enhanced by looking at the relationship between insurers and health providers. Plans, which obviously provide for access to "any willing provider", are preferable to those that restrict access. What consumer protection means in our context is the establishment of a professional culture of conservative treatment, low cost and holistic approach to the patient. These are difficult and competing perspectives where the providers' interest may vary, and easy solutions not available. But consumer protection ultimately aim at not merely reasonable premiums but on coverage and quality assurance and protection against fraud.

As regards fair practice by insurers the regulator has the duty to reconcile insurer practices with social perception of fairness. For instance, how to ensure no more than the minimum acceptable exclusion reasonable coverage of all types of risks, prompt consumer redressal, etc. Community rating of risks appropriately modified and not tiered risks should be the norm for meeting the public policy goals of affordable coverage to all possible claimants. These are the matters for learning, negotiation and experimentation, with the regulator

willing to be flexible in changing norms on the basis of experience. What are the prospects ahead that depend on the nature of the economy and polity two decades ahead. Each of us can envisage the future of the economy and polity over the next two decades; an optimistic view based on 8 per cent growth could, provided government self-consumption is kept in check, expand health cover - both mandated and privately insured with a small but significant public funding. On a pessimistic view assuming reasonable but stop-go growth, the proportion of insured population is likely to remain largely urban and among the top 20 per cent or so. The burden of the government will be sizeable. As a business, even this market may provide due return to insurers, but the purpose of insurance cover to a large population would be defeated. Any realistic view of the future of health insurance would depend on the nature of the social pyramid emerging over the next two decades, especially the size of its base, ranging anywhere between 20 per cent and 40 per cent. In both cases, the hardcore poor within that base, (now called the hungry poor, assessed at about one crore) is likely to be the key, and their geographical location among the backward and poorly performing States will be crucial to our political economy. What is equally important to note is that no rate of growth will in the nature of the case significantly reduce inter state disparities in the near future. Strategies aimed at the hardcore poor call for management innovation, decentralised organisational changes, social imagination, and of course political will. Health care and health insurance will have such prospects as the turn of events decide the shape and composition of the social pyramid.

Regulatory arrangements in regard to licensing of facilities, accreditation and licensure renewals, transparent grievance redressal forums, social audit and visible ombudsmen system, etc. are as much required in regard to health care as in regulating health insurance. How far self-regulation can work is a moot point, especially considering the records of self-regulation in the medical profession. Further more, it is not clear whether services rendered under health insurance would be actionable more effectively in regard to redressal of deficient services. Until these arrangements reach a level of maturity, there must be provision for government support in the form of public provision at free or low user's fee arrangements for treatment or in appropriate cases subsidising the payment of premia for the deserving. It is salutary to remember that even in the citadel of free enterprise, i.e., USA, the aged and the indigent are assisted by government with substantial resources. Insurers will in their own interest see the wisdom of collaborating with broad-based cover of the poor in this country too.



## THE CONCEPT OF HEALTH INSURANCE\*

N. Rangachary\*\*

### ABSTRACT

*In the valedictory address at the National Seminar on Development of Health Insurance in India: Current Status and Future Directions, the author stressed the importance of health insurance in India. He further opined in his address that more number you cover the less is the pressure on the business. The field of coverage must be large to ensure that the insurer is in business. Because it gives them a variety of risks which it covers from 0-100 in that population. So wider you have a membership of insurance companies of policy issues; the happier the company would be to continue to do business. And again, this business is extremely dependent on statistics. Statistics is the lifeline on which the insurance industry raises its theory of probability and unless you have statistics you will not have a good projection.*

**Keywords:** Pension management, Health marketing, Moral hazard, Rating structure, Third party administrator, Medical Statistics.

Amongst the specialists present here, I am a total generalist and I am not sure whether, whatever I say in the course of next 15-20 minutes, will carry any conviction with you. All of you have gone through two days of hard labour, listening to presentations made by experts in their respective areas. You have also crystallized your thoughts on the approaches that you would like to take on matters of health care but to listen to somebody at the end of a long day's session is testing one's patience. Let me keep to the minimum the observations that I would like to make. The main purpose for which I came to this meeting was only to share some of our concerns in the Insurance Regulatory and Development Authority in regard to the vast subject which you have billed for discussion for the last two days - the concept of Health Insurance.

All of us are painfully aware of the fact that there are two things which are the crying needs of the Indian society today. There have been tremendous

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\*Valedictory Address made in the National Seminar on 'Development of Health Insurance in India: Current Status and Future Directions,' held in the Institute during December 29-30, 2000.

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changes brought into our society over a period of time with regard to the support which the family system extended to its members and the support which society had offered to its members. With the weakening of relationships, these have slowly evaporated, so that the members of the society have been left to themselves to take care of their needs. Many of us who have been brought up in the old tradition where the family has acted as a 'buffer', where the Indian family system, to my mind, had all the makings of a what I would like to call 'a socialistic pattern', where anybody who was a member of the society was entitled to be treated equally, irrespective of what he brought in. All those underpinnings that we had enjoyed have evaporated at this stage. So, we are therefore thrown to examining alternate remedies which should be brought into the picture.

Many of us who are here in this gathering would remember that when the government thought of rationalising the insurance sector in 1997, it thought of only two areas. The initial attempt on the part of the United Front Government, when it brought a Bill in Parliament, was to open the insurance sector only in two broad areas: first was 'Pension Management' and the second was 'Health Insurance'. Government had fully realised that unless immediate and urgent steps were taken in these two areas, there was going to be a tremendous pressure on the society. It is another thing that those proposals did not get through and only when the Bill was reintroduced in 1998 for the creation of an authority to oversee the insurance companies, the present government thought that the insurance sector could be opened up fully not only in the pension and health insurance sectors, but in all varieties of insurances which a normal commercial insurance company can offer, will now be on offer from private operators.

Built into the Insurance Regulatory and Development Authority Act is one innocuous provision which to my mind signifies a total commitment of the government to advance the societal need. According to this prescription, the Authority shall offer priority to those insurance companies, which take up the health insurance as an exclusive operation. It is required to support such an activity. What this could be has not been specifically spelt out in the law. But what is intended is to see to that a person who wants to offer health insurance to the community at large-scale is enabled to set up his business, is enabled to run it on proper lines.

Ladies and gentlemen, it is a sad development, however, that not many people would like to run the health insurance as a stand-alone product - as a one-line business. Why are people scared of getting into this field? Many of those reasons have been discussed here by you in the last two days. The basic fact remains that any scheme of health insurance to be introduced on large-scale in this country requires a tremendous attention to be given to the organisational

capacity on the part of the insurers and the regulators to bring together the disparate elements that constitute, let me put it, the 'Health Marketing'. The various providers of services fall under this classification; behind all this the lurking fear that the persons who are likely to be covered by this scheme would be a moral hazard - the choice of selection, the choice of 'adverse selection' to put it, which is going to impinge on the 'rating structure' which insurance companies would like to adopt. The basic thing that keeps people away from getting into this business is the fact that today in this country as distinct from any other advanced country in the world, we do not have a basic social structure affording State aid to people, on a regular basis. Other developed countries have a National Policy on Health. Where they have a system by which people are taken care of, for their basic requirements on health, where provision of health facilities is considered to be a fundamental duty on the part of the State, and expecting that to be provided is considered to be a fundamental right. Why not be the provision of health insurance as a fundamental right? Why not we write it into Article 19 of the Constitution? Since such a social commitment is not available on a national scale, there has to be necessarily a pick and choose policy adopted. The State thus provides hospital outlets where people go and take their treatment; depending on the financial capacity of the patient, depending upon his affordability, these facilities come free to certain segments and they are charged to some others. People who are thinking that health insurance as a workable philosophy on the pattern that exists outside India forget one important fact that the health insurers outside India utilise the spare capacity of the medical facilities available outside India. These facilities which are surplus to current requirements can be offered at lower than market rate; they can offer such a facility at marginal cost. Whereas in India, the pressure on the medical facilities is high. You require facilities to be created additionally to meet even the existing demand; so it is not the same, you are not comparing similar things. Whereas advantage is of taking spare surplus capacity available outside India, today we have to create additional capacity even to take care of the poor strata of society which are required to be treated. This distinction is one thing, which we should bear in mind before we think of planning anything. The second thing is that health insurance today which exists in whatever little form that we have, mostly is a 'reimbursement policy' which the General Insurance Corporation's subsidiaries, have been extending to people. It does not take care of one fundamental requirement of the people. The patient has to pay first to the hospital or to the health provider and then seek a reimbursement from the insurers. And, when he or she seeks reimbursement, then some of those small things are held against him or her, with the result that you commit yourself to paying a larger sum of money than you ever hope of getting reimbursed and at what delay? So, the financial cost of a cover which today exists for let us say medical insurance claims suffers from the lack of total understanding between the provider and the provided. The necessity to wait for a long period of time to get a reimbursement, 'the time cost of money' is

something which is being forgotten. Now, we are thinking of creating a situation where the extension of such facilities will be more broad based, could be more on lines with what is available outside India where the patient can walk into the hospital for treatment and walk out after treatment without paying anything - only signing papers. Like credit cards, we are trying to introduce Health Cards. These are all good schemes on the ground. We do not know how many of them could be converted to workable schemes.

Let me now go back to insurance as a health provider. Let us remember this at the back of our minds that Insurance Company is not a charitable organisation. An insurance company is a commercial establishment and the management of the insurance company expects at the end of the period to get a return on the investment that it has made in setting it up. According to our regulations, an insurance company cannot be set-up without a working capital of less than a Rs.100 crore. If somebody has to come up with an investment of more than Rs.100 crore to start an insurance company we should concede to him a reasonable return on his investment. This return on the investment plus the management expenses plus the claims ratio which arises under the policy, minus the investment income by the insurance company will constitute the premium that will be chargeable on the product. So, if you want health insurance premium to be affordable, if you want that the coverage of health should be made on all pervasive level where people can pick up a policy at a reasonable price, you have to control these three elements which are built into the premium structure. Why I am referring to this, is because of the deficiencies that exist today in our system. The most important element is how to control your cost, your claims ratio. When you come to think of controlling claims, various fears were expressed a little while ago when I had the honour to listen to some of the presentations - the feeling that a waste of resources in the present system is taking place. People are getting hospitalised for nothing, the prescriptions of medicine is on a higher scale, the treatment given is something different than what should be the optimum treatment. Most of the facilities available in hospitals are being charged to consumers whether they are necessarily required to go through these facilities or not. Hospitals tend to look like five star hotels. All these costs have to be recovered and to be recovered from the patients. So, there has to be an intelligent approach to control these costs and spread them over the consumers. That is where people like you have a great role to play. Some references were made about doctors not being allowed to have a full professional reign to choose the method of treatment and to prescribe the medicine they want and getting the patient admitted into the hospitals for as long as they want them to be. These are some of the concerns expressed while dealing with HMOs. That how many days a patient can remain in a hospital in respect of a particular disease? There is a cap on every thing, there is a cap on his stay, there is a cap on his medication and there is a cap on the bill, which the insurance company will reimburse. This

to my mind does not seriously hamper or come into conflict with the professional freedom of the doctors. You have to control the cost if you are going to have an affordable premium for the customers. These are therefore very fundamental issues.

We have very competent, devoted and dedicated doctors in this country. It has been my good fortune to come into contact with many of them- where the type of services and devotion that they have shown to their clients are something commendable. But as a class, as professionals, they are subject to the discipline Indian Medical Council; there is still a streak of independence which runs through the entire profession, which perhaps feel offended that it is being controlled and manipulated.

If you are going to get an insurance coverage, one has to go through the matter of concluding contract, the matter of invoking those contracts for purposes of services and finally to get what is due to the customers? We have been trying to get a focus on all these and trying to make the various professional interests, to ascertain what we can do to bring the concept of health insurance into a practical shape. Very recently we had a meeting in our authority (IRDA) with the third party administrators (TPA) who would like to render services, who would like to act as middle-men between the providers and the insurers and to take a load off the providers in the matter of, let us say, administrative and repetitive procedures. Unfortunately, the insurance companies which were present for the discussion and the third party administrators could not come to any understanding on what TPA could do in the present situation. The insurance companies felt that the TPA wants to replace them and carry on insurance business under the garb of the TPA. The TPAs felt that their freedom, their maneuverability and their possibilities of controlling the costs have been not appreciated by the insurance companies. So, we are in a situation where each one feels important. Nobody feels that it is necessary to give up, let us say 'old fashioned ideas' and move towards a situation where all persons and all components in this endeavour can co-exist.

Ladies and gentlemen, it will be the endeavour of the Authority to do this at the earliest possible time, because the pressure on us to provide an intelligible, a workable and a reasonable system on health insurance will mount. Unless we do this on a scientific basis, there will not be much of an attention paid to this area as you and I expect.

I mentioned a little while ago about the capital requirements of Rs.100 crore for an insurance company, whether it does one class of a business or does all classes of business. One of the foreign companies which had made its business to be exclusively on health insurance outside India felt that Rs.100

crore was a very high amount of capital requirement and unless there was a significant drop in the requirement of Rs. 100.00 crore, then there would not be any interest shown by the insurance companies. Here is one statement which I would like to get tested and we will do so through the discussions which the Planning Commission had offered us. It will give us an idea of what exactly is the concept of health insurance, which we are looking for in this country. The potential is tremendous. Apart from the organised sector, either in government or outside which enjoy these facilities, these segments cannot be much more than 10 per cent, ninety per cent of this country's population. About ninety per cent of our country's population goes to private sector for purpose of attention. Two years ago, the statistics were that 6 per cent of our GDP was spent on hospital and medical care, out of which only 1.5 per cent came from the government and 4.5 per cent of the GDP was paid by Indian citizens to private sector organisations for medical care. It is my belief that if this 4.5 per cent were converted into insurance premia, rather than paying to individual nursing homes and doctors for an one time treatment, that could result into a much longer and stable medical care for the population. We will try to work towards that and that requires, as I come to my last point, which I would like to place before you, some development. Insurance is a service organisation. It is essentially built and raised on statistics. The more number of people you cover, the lesser is the pressure on the business. The field of coverage must be large to ensure that the insurer is in business. Because it gives them a variety of risks which it covers from 0-100, in that population. So wider you have a membership of insurance companies of policy issues, the more happy the company would be to continue to do business. And again, this business is extremely dependent on statistics.

Statistics is the lifeline on which the insurance industry raises its theory of probability and unless you have statistics you will not have a good projection. Today, there is no availability of good and reliable medical statistics in this country. I may be wrong. You may correct if I am. But to my mind that the one area where we have serious deficiencies. We do not know how many privately run hospitals maintain basic statistics. Today we have the hospital administrators developing as a profession. Can we say from facilities that are available in the government hospitals or non-governmental hospitals as to what are the illnesses that are commonly treated and what the average stay of a person in a hospital for his illness is and what is the cost? These are essentially to be built and if you have these statistics it will enable the insurance companies to price the products properly. After all, the ultimate concern of the regulatory authority is to see that the customer is taken care of, the customer's needs are met by the provision of adequate coverage. Further and more important is that the customer gets charged properly. So, if these two have to be ensured, then we have to go back to the necessity to produce medical statisticians. I am not over-critical on this because even in the non-medical industry, the industry does not produce

statistics, which will enable us to make a proper assessment of risks as well as premium.

It is therefore necessary to build these medical statistics, performance related details and if these are made available, I am sure that we will have a very responsive and responsible structure of premium.

Ladies and gentlemen, I do not know what you thought I was going to share with you. But some of these concerns I felt I should share with an elitist gathering like this - which I have done. Whatever I have said is only because of the state of helplessness in which we are today - in this vital area of providing health cover to our people. Unless you as a body would like to contribute to lessening of these deficiencies in the various areas, we may not move forward. It is very significant that we have today in this gathering medical practitioners, economists and administrators. All of them have come up to share their individual perceptions, their concerns and their views on a subject which is very current and which is very demanding. If in the process we have reached some clarity somewhere and we are able to say that this is wrong and that is not, we are able to crystallize our thoughts on the approaches that one should know in this area we have advanced on proper lines. I will most certainly request all of you to guide us in the endeavour that we have set ourselves on.

## VOLUNTARY HEALTH INSURANCE FOR RURAL INDIA\*

GYAN SINGH\*\*

### ABSTRACT

*The rural poor suffer from illness are mainly utilising costly health care services from the private providers. The financial burden of catastrophic sickness is unduly heavy for the individuals and households belong to the poor income category. Health insurance or risk sharing scheme is appeared to be the solution for protecting the poor from the financial disaster. However, the demand for health care on introduction of health insurance or risk sharing scheme mainly depends on quality of care provided under the scheme. The question of willingness and ability to pay for health care services also depends on effectiveness of the curative services provided under the health insurance scheme.*

*This paper presents the role of health insurance or risk sharing scheme in rural areas for introducing a voluntary health insurance scheme for the rural people in India.*

**Keywords:** Out-of-pocket expenditure, Risk-sharing system, Actuarial risk, Social Insurance, Equity, Viability, Health fund.

About 70 per cent of population of India lives in rural areas where limited choices of health care services are available. A large section of the rural society belongs to the poor category. Because of poverty and poor living environment, they are at great risk of catastrophic illnesses. Sickness causes major financial loss both in direct and indirect ways. As the Government health care facilities are unable to provide quality health care services, the poor in rural India mostly avail of private health care services, including traditional healers and private nursing homes. This results in increasing out-of-pocket expenditure on seeking health care especially on consultation and purchase of drugs from the markets. The cost of drugs has increased during the past few years and also there is no fixed

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\* Presented in the National Seminar on 'Development of Health Insurance in India: Current Status and Future Directions,' held in the Institute during 29-30 December, 2000.

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norm to charge consultation fee by the private health care providers. National Family Health Survey (NFHS-1992-93) revealed that in rural areas, the expenditure on non-hospitalized health care services was Rs. 144.00 per person and for hospitalized services it was Rs.3202.00 per person<sup>1</sup>. The demand or willingness to pay for health insurance by the rural people for protection against the financial risk associated with ill health is rising mainly because of out-of-pocket expenditure. At present, people who are working in the informal sectors like agriculture workers, labourers and self-employed are not covered under any risk-sharing scheme in the country. On the other hand, awareness of health has increased during the past few years and people like to have a better quality health care service.

Utilization of public health care facilities for preventive as well as for curative services by both rural and urban people is poor. NFHS (1992-93) shows that in rural areas, 20 per cent of all the illnesses were treated in public health care facilities and 80 per cent in private sector facilities. Some studies have shown that PHCs and CHCs are providing only preventive health care services. The percentage of curative services provided by the Government health care facility is very low. Further, the people in rural India perceive that the quality of health services provided at public health care facility is poor. On the other hand, these health facilities lack adequate resources to deliver quality health care. To improve the quality, there is a need to generate funds in the form of fee for service or user charges at the point of delivery. Without improving the quality, the introduction of any form of finance mechanism will further reduce the use of services. Therefore, social health insurance will be a solution to protect rural people from this financial disaster. Empirical evidence shows that the social health insurance scheme may improve the quality and access to health care if it is implemented in such a way that helps the poor and the whole family instead of individuals.

### **Concept of Health Insurance**

Health Insurance is a system in which prospective consumers of health care make payment to a third party in the form of an insurance scheme which, in the event of future illness, will pay the provider of health care some or all of the expenses incurred. It involves a highly complex combination of incentives to providers, consumers and third-party fund holders. Health insurance is a risk-pooling or risk-sharing system. It is a way of financial protection against the risk of unexpected and expensive illness.<sup>2</sup>

## **Types of Health Insurance**

- (i) *Social Insurance*: The payment for health care service is made through a health fund. Contributions usually come from the payroll. A typical feature of a social health insurance is that the payment is independent of actuarial risk. The social insurance system may either be universal and compulsory or, to a lesser extent, based on voluntary coverage, and is sometimes only covering a relatively small formal sector. For example, social insurance for Government employees (Indonesia, Thailand) or social security scheme for workers (Myanmar, Thailand and India), and the health care schemes for the poor rural population as introduced in Thailand and Indonesia. These schemes show that the health funds are usually independent of Government but operating within the tight framework of Government regulations.
- (ii) *Private Insurance*: The insurance contributions or premiums are based on risk. Usually the premiums are based on the actuarial risks, i.e. the expected average cost of providing care for them. It means that people who are in high-risk groups pay more, and low risks pay less. Many private insurance companies, especially in Indonesia and Thailand are expanding their coverage into health insurance areas.
- (iii) *Employer-Based Insurance*: It is a system falling in between the above two categories. Here, the employers (usually of large corporations) or private bodies serve as the third-party payer or collection agent.

## **Key Issues in Introducing Voluntary Health Insurance**

### **Demand for Health Care**

Public health care services in the country are being provided free of cost or at a subsidised cost through its health care facilities at different levels. Before introducing health insurance for rural population, the question of demand for health care should be examined properly. At present the utilization of public health facilities by the people is lower as compared to the private health sector. The charges in the form of insurance for health care from the rural people will again reduce the demand for health care from these health facilities. There is a need to raise the resources for bringing an improvement in the quality of health care provided at the Government health care facilities. For assessing the demand for health care, it can be argued that the demand for health care is different from the demand for other commodities.<sup>3</sup> The studies have revealed that the demand for health care is determined by income, price, physical access and quality of care.<sup>4</sup>

### **Willingness and Ability to Pay**

Willingness to pay for health care does not necessarily reflect the ability to pay. The current level of household expenditure is partly due to the poor accessibility of free Government health care facilities, particularly in rural areas. People may use and buy non-government health care partly because they do not have any cheap or good quality alternatives. People in the low-income group tend to delay the use of health care services until illness is severe, presumably in part to avoid payment, but such a delay will only increase the expenditure. Ability to pay for health care does not always depend on income, and if the quality of service is poor, people may not like to use the services. For example, 60 per cent of Thai farmers who sold land were forced to do so because of increased cost of ill health<sup>5</sup>. Willingness to have rural health insurance will depend on quality of services provided under the programme. Another study reported that consumers were not buying health cards because they were not satisfied with the quality of the services.<sup>6,7</sup>

There is evidence that people are willing to pay at least for improving access to quality health care and quality drugs.<sup>8</sup> Studies reveal that 40 per cent of increase in the utilisation of public health care facilities by the people in Ghana was observed when the public health care facilities supplied drugs free of cost.<sup>9</sup> Simultaneously, improvement in drug, infrastructure and service would increase the use of public health facility by 127 per cent<sup>10</sup>.

### **Equity**

At present, as no fee is charged for providing health care services in the public health facilities in rural areas of the country, equity in the health care services has not been maintained, because the poor are spending more than the rich in the form of out-of-pocket payments. They also spend more time in waiting for consultation. Social health insurance may transfer wealth not only from healthy to sick, but also from rich to poor. One of the principles behind the compulsory health insurance is promoting social solidarity. This is especially true, if the contribution rates are income related, but benefits are provided according to need, regardless of the amount an individual has contributed. In Thailand, for example, health card scheme insures the people of rural areas. This health card scheme is providing benefits to five members of a household. In such a scheme, it is important that the Government should encourage the broadening of insurance schemes in order to reduce inequities.

Illness causation beliefs may be limited to income level; income level is itself linked to ill health and so both directly and indirectly influence the demand for health care. The result of studies in Indonesia suggested that an increase in public sector fee would reduce the access to health care.

## **Efficiency**

Health insurance has been a way of allowing the Government to diversify the sources of revenue of the health sector to improve efficiency by giving individuals some roles in paying for their own health care which will reduce their health risks. The existence of health risk is fundamental rationale for insurance. Health care costs may be infrequent but they are potentially high. This means without insurance, individuals may not be able to pay for health care even if they are willing to do so.

The insurance market suffers from market failures, particularly, those associated with imperfect information. These problems are described as moral hazards; insured will tend to overuse insured services. The efficiency includes quality of care and effectiveness of health care services. Due to the moral hazards, the efficiency will suffer. And insurance system may allocate too many resources to curative care, since it finances personal health care services only, but equally important is administrative cost to reflect administrative efficiency. For example, in some of the countries in Europe, administrative cost is 5 per cent and in African countries it is 50 per cent of the revenue collected for insurance. Therefore, the issue of efficiency should be examined properly before introducing the voluntary health insurance in rural areas.

## **Consumers**

In rural areas, preventive health care services are being provided by the Government. The immunization against preventable diseases, programme on nutrition and family planning are being provided by the Government free of cost. However, the poor supply of these preventive services in rural areas often lead to more diseases. On the other hand, curative services provided by the Government are of poor quality and therefore, the consumers prefer private sector. They do not know the type of health care services available to them in different sources. Consumer awareness is linked to availability of appropriate information, and the level of literacy, particularly of women, who play an important role in health care in the family and community. The average mother may be able to make a relatively well informed judgement about quality of services, she receives from the PHC/CHC, but it is much harder to make such judgement for complex hospital based diagnosis and treatment, where more complex care is required. The patient may judge quality of care received based on the behaviour of the health care providers, cleanliness of hospital, etc. Therefore, while introducing voluntary health insurance in rural areas, the consumer's education regarding the benefit packages, providers, quality of services, etc. should be taken care of.

## **Provider of Health Care Services**

It is important to make the decision regarding who should be the provider of the health care services under the voluntary health insurance scheme. If the private health care providers are selected to provide health care services, their motive will be only profit which will affect the beneficiary. In most cases, Bangladesh, India, Indonesia, Nepal, Myanmar, Sri Lanka and Thailand, the private sector is more active in personal curative care and the consumers are willing to pay.

The private provider tends to exploit the openness of the health care market by providing high-priced commodities, no matter whether these are actually needed mostly by consumers or not. Consumers also tend to fall in the trap with the notion that higher payment may give them better services. While pursuing the consumers' best interests, a policy promoting competition between providers should be established to maintain equity and efficiency. The Government may play the role of the provider in the voluntary health insurance to help the rural poor.

## **Purchaser**

In the voluntary health insurance for the rural people, the Government should be the purchaser. In this endeavour, the Government will have the core responsibility to provide better and effective health care services to the consumers. The collected revenue from the consumers should be utilized at the level of the different health care facilities for providing quality care and also to maintain the equity and efficiency. For example, in Thailand's health card scheme, the Government is both the provider and the purchaser of the health care. The health card fund is utilized at the health care facility to provide drugs and other facilities to the consumers. Evaluation studies on this scheme have shown that acceptability of this scheme has increased during the past years.

## **Viability**

Health insurance systems (private or social) are generally well accepted by the insured persons.<sup>7</sup> Because, the insurance systems are generally defined with benefits scheme. Tax finance system does not provide same reliability. On the other hand, voluntary health insurance will help in increasing the utilization of health facility, which at present, is under-utilized in rural areas. It will also make consumers aware of the value of the health care.

## **Conclusion**

The Government health care set-up is unable to provide quality care to the rural population. The rural poor suffer from illness are mainly utilising costly health care services from the private providers. The financial burden of catastrophic sickness is unduly heavy for the individuals and households belong to the poor income category. Health insurance or risk sharing scheme is appeared to be the solution for protecting the poor from the financial disaster. However, the demand for health care on introduction of health insurance or risk sharing scheme mainly depends on quality of care provided under the scheme. The question of willingness and ability to pay for health care services also depends on effectiveness of the curative services provided under the health insurance scheme.

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## **COST OF HEALTH CARE- A STUDY OF UNORGANISED LABOUR IN DELHI**

**K.S.Nair\***

### **ABSTRACT**

*The study attempts to estimate the economic burden of labour households engaged in the unorganised sector in Delhi in meeting their health care requirements. The analysis reveals that on an average, a household spends Rs.424.87 per capita per annum as direct health care expenditure and Rs.240.55, per capita per annum as indirect expenditure. Both together form 8.87 per cent of the annual per capita income. Nearly 24 per cent of the households either borrowed money from various sources or sold their belongings in order to meet their health care costs. For every Rs.1000.00 of health care expenditure, Rs. 83.33 was taken on loan.*

**Keywords:** Socio-economic profile, Household consumption, Morbidity, Health care expenditure, Public health care facilities.

The unorganised sector constitutes a significant section of population in India. According to 1991 census, the segment of labour force is about 90.6 per cent of the total labour force in the country.<sup>1</sup> This population is growing up by two to three times faster than the overall urban population. The adverse effects of ill health are greater for labourers engaged in the unorganised sector due to their poor living conditions. Their income depends exclusively on physical/manual labour and they do not have enough savings for treatment. These households are considered high-risk for a wide range of morbidity, including various types of communicable, respiratory and other contagious diseases.

Delhi is considered typically an urban State as 89.93 per cent of the population resides in urban areas.<sup>2</sup> The population in this State has been increasing rapidly with the migration of people from other States. According to 1991 census, the population in Delhi is 94.20 lakh with the growth rate of 4.15 per cent per annum, one of the highest among various States in the country. Of the total population in Delhi, the working population constitutes 29.80 lakh. The Directorate of Employment, Government of National Capital Territory of Delhi,

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estimates that 8.52 lakh are in the organised sector and the majority (21.60 lakh) are engaged in the unorganised sector.<sup>3</sup> A strong disparity in the health care infrastructure and utilisation by the population in the organised and unorganised sector is visible in Delhi. Despite the Government health care services in Delhi, private clinics have become the major health care providers for low-income households who are engaged in the unorganised sectors. The present study, therefore, intends to look into the income and expenditure pattern of households engaged in unorganised sector with special reference to their health care.

## **METHODOLOGY**

The study was conducted during August to December, 1998, among the households living in the Juggi-Jhompri colonies (J.J clusters) in Delhi. Multi-stage sampling technique was used to select the sample population. This technique was preferred because under this method, representative sample from all regions could be collected. As per the latest information available with the Municipal Corporation of Delhi (MCD) (as on 31 st March, 1994), there were 1018 J.J clusters all over Delhi consisting of 4,65,337 juggies.<sup>4</sup> For the purpose of the study, one assembly segment in each region of Delhi namely, north, south, east, west and central was selected at random. From each selected assembly segment, one JJ cluster, having the largest number of juggies, was identified. From each of the identified JJ clusters, one block was randomly selected for the study.

Then a household listing was done in selected blocks. The minimum sample size of the households was 280, which formed 15 per cent of the listed households. Before selecting the households, 10 households residing in both ends of the selected blocks were interviewed and the data were analysed separately. The analysis showed no significant variation in the data. Therefore, by applying simple random sampling technique, 15 per cent of the households in each of the identified blocks were selected. During the selection of sample, any household, which had an earning member in the organised sector, was excluded.

## **FINDINGS AND DISCUSSION**

### **Socio-Economic Profile of the Households**

The mean age of the heads of households in the study was 34.88 years. 93.57 per cent of the heads of households were males and 41.78 per cent of the heads of households were illiterates. 15.71 per cent of the heads of households had primary education, 18.58 per cent had middle level education, 16.07 per cent had high school education and 4.28 per cent had senior secondary education. Only 3.57 per cent of the heads of households had education beyond senior

school level. Average number of members in a household was 5.02 and the mean number of children was 2.05.

Out of 1406 persons in the sample households, 397 persons (28.24 per cent) were workers and the rest were non-earning dependents. The ratio of earning members and dependents was 1:4. 72.84 per cent of male adults were working, while proportion of workers among female adults was 29.14 per cent. About 65 per cent of the families had only one earner. The number of earning members between different income groups varied widely. In the lowest monthly per capita income group of below Rs.200.00, 77.78 per cent of the households had only one earner. However, households with monthly per capita income of Rs.500.00 or more had more than one earning member.

The research reveals that 42.50 per cent of the households had an average per capita monthly income of less than Rs.500.00. For the remaining groups, a consistent rise in the per capita income was reported with the rise in income ladder. The average per capita income in the highest income group was about 7 times more as compared to those in the lowest income group. The highest average monthly income of Rs. 2880.00 per earner was found in the self-employed group. While the average monthly income of labourers in enterprises was RS. 2110.00, average monthly income of construction workers was Rs. 1850.00 and of manual labourers' was Rs. 1520.00.

### **Household Consumption Expenditure**

Data on monthly household consumption expenditure were obtained from the sample households indicating, approximately how much money was spent on different items like food, fuel, lighting, housing, education, transport, clothes, drinks, smoking, entertainment and social ceremonies.

The proportion of expenditure for every 100 rupee spent by labour households is given in Table1.

**TABLE 1**  
**HOUSEHOLD CONSUMPTION EXPENDITURE PATTERN**

| Consumption Item           | Proportion of Money Spent |
|----------------------------|---------------------------|
| Food                       | 62.03                     |
| Fuel and lighting          | 4.67                      |
| Housing                    | 2.62                      |
| Education                  | 2.55                      |
| Transportation             | 4.09                      |
| Medicine                   | 6.55                      |
| Clothes and other durables | 6.88                      |
| Alcohol and tobacco        | 5.87                      |
| Entertainment and others   | 4.73                      |
| <b>Total</b>               | <b>100.00</b>             |

An examination of the consumption expenditure pattern of households revealed that out of the total consumption of Rs.100.00, as much as Rs.62.03 was spent on food items including beverages. An equal amount was spent on housing and education. Medicine, clothes and other durables, and alcohol and tobacco took more amount as compared to housing and education (Table 1).

### **Morbidity Pattern of Households**

The monthly morbidity prevalence rate of the sample population in the unorganised sector is 218.35 illness episodes per 1000 population (Table 2). This means every day 7.27 episodes prevail for every 1000 population. With this, the rate of annual prevalence rate per person is 2.65 episodes.

### **Age - Sex Differentials of Morbidity**

Sex differentials show that females suffer a higher morbidity than males. The monthly prevalence rate of morbidity is 203.93 for every 1000 males and 227.06 for every 1000 females respectively. While males constituted 51.14 per cent and females 48.86 per cent of the sample population, but male morbidity is 46.58 per cent and female morbidity is 53.41 per cent. Age-wise distribution of those falling ill, shows that the under-five years and above 60 years age groups had the highest morbidity rates (Table 2).

**TABLE 2**  
**AGE-WISE MONTHLY MORBIDITY PREVALENCE RATE POPULATION**  
**(per 1000 population)**

| Age (years)   | Males  | Females | All Cases |
|---------------|--------|---------|-----------|
| Under 5 years | 419.16 | 447.03  | 439.07    |
| 5 – 14 years  | 166.55 | 206.73  | 186.48    |
| 15 – 24 years | 127.65 | 167.85  | 130.88    |
| 25 – 59 years | 159.37 | 196.47  | 181.76    |
| 60 and above  | 410.00 | 612.66  | 485.53    |
| All ages      | 203.93 | 227.06  | 218.35    |

### **Perception of Morbidity and Pattern of Utilisation**

34.96 per cent of the respondents reported that they would consider the nature and seriousness of the symptoms and if the symptoms were not serious, the patient would be given some kind of home remedy and wait for a day or two. If the problem further persists or gravitates, the patient would be taken to the nearest health care facility. However, a majority of the respondents (65.04 per cent) reported that in the event of any illness, the patient would be taken to the nearest health facility, mostly to private clinics.

Many factors were taken into account while taking a patient to a doctor. About 83 per cent of the households reported that the seriousness of illness was one of the deciding factors for seeking care and 20 per cent of the households reported that availability of money at home was more important than any other factor. 27.80 per cent of the sample respondents reported if free health care was available and accessible, they would immediately go for treatment. However, 18.88 per cent of the households reported that in the event of any health problem in the family, they would immediately take the patient to the nearest private facilities.

### **Facility Utilized for Treatment**

The study reveals that for 3.22 per cent of the acute illness episodes and 5.55 per cent of chronic illness episodes, no treatment was sought. However, for

2.34 per cent of the acute illness episodes and 1.85 per cent of chronic cases, self-care was taken. Self care in this context refers to any self -cure measures taken by the family on its own, and no treatment was sought considering it was not necessary.

The study showed that private health care facilities were utilized for nearly three- fourths of acute illness episodes. However, for nearly 57 per cent of chronic illness episodes, public health care facilities were utilised. The mean number of visits by the kind of facility utilized, shows that those utilising the private facilities had to pay more number of visits per episode as compared to those using the public facilities.

### **Maternity Services Utilization**

During the year prior to the interview, 12 pregnancies, 47 deliveries and 4 abortions were recorded among the households. 68.08 per cent of deliveries were conducted at home. Of the institutional deliveries, 80 per cent were conducted in Government hospitals and dispensaries and the rest 20 per cent were conducted in private health care facilities.

### **Immunization Services**

47 live births were recorded in the sample and all of the children received at least one dose of the vaccines such as DPT, Polio, BCG, and Measles. 80.85 per cent of the children received the vaccination from public facility, mainly from the health centres and health posts run by the MCD. 19.15 per cent used private health care facilities for vaccination. The utilization of immunization services in public health care facilities was quite higher mainly because of the Government's policy of providing efficient MCH services to the poor.

### **Preferences for Health Facilities**

Among the 280 respondents, 7 respondents did not express any choice and preferred both public and private facilities for one or the other reasons. Of the remaining 273 respondents, 68.30 per cent opted for private facilities, especially for curative care. However, for immunization and maternity services most of them preferred public facilities. The study shows that since public health care centres are located in inconvenient locations, and it takes more time to reach, people don't prefer public health care centres. Lack of personal attention and poor quality of treatment were reported by 29.10 per cent and 27.28 per cent of respondents respectively. Unfriendly attitude of the hospital staff and lack of medicines and diagnostic facilities were also reported by 20.15 per cent and 18.90 per cent respectively.

## Cost Distribution for Illness

Table 3 reveals that the total health care expenditure of the sample households during the preceding month of the study was Rs.73148.00. The direct expenditure was Rs.49220.00 which constitutes 67.27 per cent of the total health care expenditure. The data also show the details of direct and indirect expenditures incurred by the households on each illness episode during the reference period of one month. The average direct cost of each illness episode in the sample population was Rs.160.33. The average indirect cost per illness was Rs.77.95 including wage loss to the family. Thus, the average cost of each illness episode was Rs.238.28. The average direct cost per visit was Rs.64.86, and of this, Rs.49.00 formed doctors' fee and medicine and Rs.15.86 for diagnostic tests.

TABLE 3  
DISTRIBUTION OF ILLNESS EPISODE EXPENDITURE BY TYPE OF  
COST (RUPEES)

| Type of Cost                       | Total expenditure for one month | Expenditure per illness episode | Cost per visit | Health expenditure per capita per year |
|------------------------------------|---------------------------------|---------------------------------|----------------|----------------------------------------|
| Doctor's/hospital fee and medicine | 37183                           | 121.12                          | 49.00          | 320.97                                 |
| Diagnostic Costs                   | 12037                           | 39.21                           | 15.86          | 103.90                                 |
| <b>Sub total</b>                   | 49220                           | 160.33                          | 64.86          | 424.87                                 |
| Transport costs                    | 3407                            | 11.10                           | 4.90           | 32.19                                  |
| Cost of performing rituals         | 1040                            | 3.39                            | 3.70           | 24.33                                  |
| Cost of Special food               | 1129                            | 3.68                            | 1.63           | 10.67                                  |
| Loss of earning                    | 18352                           | 59.78                           | 26.47          | 173.36                                 |
| Sub total                          | 23928                           | 77.95                           | 36.70          | 240.55                                 |
| <b>Total</b>                       | 73148                           | 238.28                          | 101.56         | 665.42                                 |

Table 4 reveals that the average cost of each acute illness episode in the sample population was Rs.189.61. The indirect cost including loss of earning to the household constituted 26.12 per cent of the total cost. The average cost of each chronic illness episode in the sample population was Rs.726.60 (Table 5).

TABLE 4  
DISTRIBUTION OF ACUTE ILLNESS EPISODES EXPENDITURE  
AMONG HOUSEHOLDS BY TYPE OF COST (IN RUPEES)

| Type of cost               | Expenditure per illness episode | Cost per visit | Health expenditure per capita per year |
|----------------------------|---------------------------------|----------------|----------------------------------------|
| Doctor's fee and medicine  | 118.93                          | 46.28          | 350.84                                 |
| Diagnostic costs           | 21.15                           | 8.23           | 62.39                                  |
| Sub total                  | 140.09                          | 54.51          | 413.23                                 |
| Transport costs            | 4.94                            | 1.92           | 14.52                                  |
| Cost of performing rituals | 2.09                            | 0.81           | 6.16                                   |
| Cost of special food       | 3.64                            | 1.42           | 10.74                                  |
| Loss of earning            | 38.85                           | 15.12          | 114.60                                 |
| <b>Sub total</b>           | 49.52                           | 19.27          | 146.02                                 |
| <b>Total</b>               | 189.61                          | 73.78          | 559.25                                 |

TABLE 5  
DISTRIBUTION OF CHRONIC ILLNESS EPISODES BY TYPE OF COST  
(IN RUPEES)

| Type of cost               | Expenditure Per illness Episode | Cost per visit | Health expenditure per capita per year |
|----------------------------|---------------------------------|----------------|----------------------------------------|
| Doctor's fee and medicine  | 241.20                          | 89.33          | 113.36                                 |
| Diagnostic costs           | 182.40                          | 67.55          | 85.73                                  |
| Sub total                  | 423.60                          | 156.88         | 199.09                                 |
| Transport Costs            | 51.80                           | 19.18          | 24.35                                  |
| Cost of performing rituals | 49.20                           | 18.52          | 23.50                                  |
| Cost of special food       | 4.00                            | 1.48           | 1.88                                   |
| Loss of earning            | 198.00                          | 73.04          | 92.68                                  |
| <b>Sub total</b>           | 303.00                          | 112.22         | 142.41                                 |
| <b>Total</b>               | 726.60                          | 269.11         | 341.50                                 |

Average total health care expenditure of a family in the unorganised sector was 9.58 per cent of monthly per capita consumption expenditure and 8.87 per cent of their monthly per capita income.

## Hospitalization Expenditure

Of the total households in the study, 7.5 per cent reported hospitalization during the period of one year preceding the study. There was difficulty in desegregating the costs such as doctor's fee, hospital fee, and medicines

TABLE 6  
COST DISTRIBUTION PER HOSPITALIZED CASE

| <u>Type of cost</u>         | <u>Total expenditure</u> |         |           | <u>Cost per hospitalized case</u> |         |           |
|-----------------------------|--------------------------|---------|-----------|-----------------------------------|---------|-----------|
|                             | Public                   | Private | All Cases | Public                            | Private | All Cases |
| <b>Direct Expenditure</b>   |                          |         |           |                                   |         |           |
| Doctors fee and Medicine    | 2280                     | 5700    | 7980      | 142.50                            | 1140.00 | 380.00    |
| Diagnostic costs            | 5980                     | 2600    | 8580      | 373.75                            | 520.00  | 408.57    |
| Hospital fees               | 180                      | 2400    | 2580      | 11.25                             | 480.00  | 122.86    |
| <b>Sub total</b>            | 8440                     | 10700   | 19140     | 527.50                            | 2140.00 | 911.43    |
| <b>Indirect expenditure</b> |                          |         |           |                                   |         |           |
| Transport and Conveyance    | 2940                     | 480     | 3420      | 183.75                            | 96.00   | 662.85    |
| Self-medication             | 210                      | 300     | 510       | 13.13                             | 60.00   | 24.28     |
| Special food                | 1800                     | 400     | 2200      | 112.50                            | 80.00   | 104.76    |
| Wage/income loss            | 16900                    | 1200    | 18100     | 1056.25                           | 240.00  | 861.90    |
| <b>Sub total</b>            | 21850                    | 2380    | 24230     | 1365.63                           | 476.00  | 1153.80   |
| <b>Total</b>                | 30290                    | 13080   | 43370     | 1893.13                           | 2616.00 | 2065.24   |

Average direct cost per hospitalized case was found to be Rs. 911.43 (41.69% formed the cost of medicine, 44.83 per cent towards diagnostic tests and the rest amount i.e. 13.48% for hospital fee). Average indirect cost per hospitalized case, which includes loss of income to the household, was Rs.1153.80. Of this cost, loss of earning of the household constituted 74.70 per cent, and cost of transport to the hospitals was 14.11 per cent. The cost of performing rituals and cost of special food together formed 11.18 per cent of the indirect cost (Table 6).

Cost distribution of hospitalized cases by facilities utilised shows that total cost per hospitalized case in public hospitals including wage loss to the family was Rs. 1893.13, of which indirect cost accounted for 72.13 per cent. The cost per hospitalized case in private hospitals was Rs.2616, out of which direct cost alone accounted 44.13 per cent. As expected, treatment in private hospitals was more expensive as compared to the public hospitals. However, an interesting finding has been that indirect cost per hospitalized case in public hospitals was three times higher than in private hospitals (Table 6).

## Maternity Related Expenditure

Each maternity event cost on an average Rs.1091.53. The average cost of a delivery was Rs.1332.76, abortion Rs.717.50, and pregnancy Rs.271.25.

Delivery cost included only the expenditure incurred during the period of delivery and excluded the expenditure during pregnancy for the same delivery. Similarly, the expenditure on abortion does not include expenditure incurred during the beginning of the pregnancy and so on. Of the entire cost of maternity expenditure, 22.93 per cent went to the doctor/hospital and 37.70 per cent was spent on medicines and other drugs. Diagnostic tests accounted for 11.34 per cent and cost of rituals formed 0.93 per cent and miscellaneous accounted for 21.26 per cent, including special food expenditure, clothes, cotton, etc. This also included the charges paid to health and non-health functionaries.

### **Cost of Immunization**

It was found that majority of children were got immunized at public health care facilities. In 48.94 per cent cases, no expenditure was involved. However, in 38.28 per cent of the cases, parents spent below Rs.50.00 for immunization and the rest spent more than Rs.50.00.

When per capita annual health expenditure was viewed in terms of per capita income, the study reveals that about 8.87 per cent of the annual per capita income was spent on health care. Adding the cost of maternity related events and child immunization, this proportion would increase to 12.09 per cent. This shows in spite of their lower purchasing power, the proportion of health care expenditure in terms of resource availability was high among the selected households.

### **Loan for Health Care Expenditure**

24.29 per cent of the respondents borrowed money from friends and relatives followed by the sale of personal belongings and assets during the period of one year for meeting the health care expenditure. The total amount borrowed by the sample respondents was Rs.80380.00 in one year.

The respondents were asked about the source used to pay for their health care. 59.64 per cent of the households used regular household income to pay for health care. 16.08 per cent of them used their past savings for meeting unforeseen health care expenditure. However, 21.24 per cent of the households reported that they borrowed money from friends, relatives and petty money lenders and 3.04 per cent reported that they sold their assets or personal belongings such as bicycles, wrist watches, gold rings, etc., for meeting the health care costs.

## CONCLUSION

The real financial burden of labour households engaged in the unorganised sector for their health care is quite high. The results show that on an average, a labour household spends 8.87 per cent of its annual income (including wage loss to the family) on health care. In spite of low income, a substantial number of households do not utilise public health care facilities. The analysis reveals that on an average, a household spends Rs.424.87 per capita per annum as direct health care expenditure and Rs.240.55, per capita per annum as indirect expenditure. Nearly 24 per cent of the households either borrowed money from various sources or sold their belongings in order to meet their health care costs. For every Rs.1000.00 of health care expenditure, Rs. 83.33 was taken on loan.

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## NATIONAL PROGRAMME FOR CONTROL OF BLINDNESS\*

I.B. Sareen\*\*

### ABSTRACT

*Prevention and control of blindness is one of the important health care programmes in India. The National Health Policy document of Government of India, 1983, stipulates that "one of the basic human rights is the right to see. We have to ensure that no citizen goes blind needlessly, or being blind, does not remain so, if by reasonable deployment of skill and resources, his eye sight can be prevented from deterioration or if already lost, can be restored."*

*In this article, the author describes in detail regarding various issues of National Programme for Control of Blindness.*

**Keywords:** Visual acuity, Economically blind, Corneal transplantation, Laser technology, Paediatric ophthalmology.

### Magnitude of the Problem of Blindness

Of the total estimated 45 million blind persons (Visual Acuity < 3/60) in the world, approximately 7 million are in India. An estimated 2 million new cases of cataract are added every year. As per prevalence of blindness, all States of India can be placed in four categories:

- (i) **Low prevalence (<1%):** Punjab, Himachal Pradesh, Delhi, West Bengal, and North Eastern States.
- (ii) **Moderate prevalence (1 to 1.49 %):** Gujarat, Haryana, Kerala, Assam, Karnataka, Andhra Pradesh and Bihar.
- (iii) **High prevalence (1.5 to 1.99 %):** Maharashtra, Orissa, Tamil Nadu and Uttar Pradesh.

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\*An abstract of the National Programme for Control of Blindness to be published by the Institute under National Health Programme Series.

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- (iv) Very high prevalence (2 % and above):** Madhya pradesh, Rajasthan and J&K.

Above data are based on results of two major surveys conducted to find out prevalence of blindness in the country. The first survey was done by the ICMR on a national sample in 1974 and arrived at the figure of 1.38 percent prevalence rate for the economically blind. In the second survey conducted jointly by the NPCB and WHO in 1986 - 89, the prevalence rate increased to 1.49 percent.

The prevalence of blindness in other countries in the South East Asian region of WHO is around 0.8 per cent. The rates vary from 0.3 per cent for Thailand to 1.5 per cent for Indonesia. South East Asia Region of the WHO has close to 15 million of the world's 45 million blinds, a disproportionately high burden of one third of world's blindness for one quarter of the globe's population. South East Asia region also has half of the world's 1.5 million blind children.

In all countries of the region, prevalence of Blindness has been observed to be higher among women. The elderly, the rural poor and the marginalized suffer more often.

### **Health Policy**

Prevention and control of blindness is one of the important health care programmes in India. The National Health Policy document of the Government of India, 1983, stipulates that " One of the basic human rights is the right to see. We have to ensure that no citizen goes blind needlessly, or being blind, does not remain so, if by reasonable deployment of skill and resources, his eye sight can be prevented from deterioration or if already lost, can be restored."

### **Evolution of the Programme**

National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100 per cent centrally sponsored vertical public health programme. Major landmarks in the history of Blindness Control activities in India in chronological order are as follows:

- (i) National Trachoma Control Programme was launched in 1963 to prevent and control trachoma
- (ii) A survey was undertaken by the ICMR in 1971-1974 to identify the main causes of blindness, which revealed that prevalence of blindness was 1.38 per cent and cataract was the leading cause of blindness. Based on this survey, the GOI appointed a

committee to formulate strategies to control blindness. A comprehensive National Programme for Control of Blindness was launched in 1976 with the goal of reducing prevalence of blindness to 0.3 per cent by 2000 AD.

- (iii) DANIDA agreed to assist NPCB since 1978 (Phase I).
- (iv) National Survey was undertaken by the GOI / WHO in 1986-89. The survey revealed increase in prevalence from 1.38 per cent to 1.49 per cent. Cataract accounted for 80 per cent of blindness. Decrease in Blindness due to trachoma and malnutrition was noticeable.
- (v) DANIDA assistance (Phase II) was launched in 1989. Mid-term evaluation highlighted lack of management unit at the district level and lack of equipment as the main reasons for limited success.
- (vi) Pilot project in 5 districts implemented in 1991-92 to assess effectiveness of District Blindness Control Societies.
- (vii) World Bank assisted Cataract Blindness Control Project was launched in 1994-95 to control cataract blindness in seven States in the country. A Govt of India project in Jammu and Kashmir and a DANIDA project in Karnataka was also launched in 1994-95.
- (viii) Revised pattern of assistance under NPCB was launched to make it more effective in 1995 and again in 1997.
- (ix) DANIDA phase III project was launched in 1997-98.
- (x) Mid-term evaluation of World Bank project in 1997-98 indicated marginal (10-15%) fall in prevalence and lack of follow up services, increase in proportion of IOL implants and superior outcomes after IOL surgery.
- (xi) Mega eye camps in underserved areas launched in the 50<sup>th</sup> year of India's Independence in 1997-98.
- (xii) Expansion of the World Bank project components to the entire country was started in 1999.

## **Goal**

Presently, the goal set to be achieved under the NPCB is to reduce the prevalence of blindness from 1.49 per cent to 0.3 per cent.

## **Objectives of the Programme**

Objectives to be attained under the National Programme for Control of Blindness are as follows:

- a) Developing eye care infrastructure throughout the country;
- b) Increase institutional capacity for eye care;
- c) Expand coverage to underserved areas;
- d) Decentralisation at the district level;
- e) Human resource development for eye care at all levels;
- f) Improvement in the quality of eye care for better visual outcome and
- g) Secure participation of non-government and private sector in the programme.

## **Organizational Structure**

At the national level, a National Programme Management Cell has been established in the Directorate General of Health Services (DGHS), Department of Health in the Ministry of Health and Family Welfare. It has two wings viz: the Technical Wing in the DGHS which deals with the ophthalmic section and the Administrative Wing that deals with blindness control section

The Technical Wing is solely dealing with the NPCB. Senior officers of the Administrative Wing have Blindness Control as one of the functions. At the State level, each State has an Ophthalmology Cell in respective Directorate of Health Services devoted to the programme implementation and monitoring. Gradually the process of setting up of a State Blindness Control Society in each State has been initiated. At the district level, District Blindness Control Society (DBCS) has been established in almost, all the districts. It is the DBCS, which is responsible for planning and coordinating different agencies, and monitoring implementation of the programme by pooling in all the resources available. Recurring funds are directly provided to the DBCS by the Govt of India.

## **National Bodies for NPCB**

There are three bodies that have been constituted for monitoring, coordinating and development of the programme.

- (i) **National Blindness Control Board**, chaired by the Union Secretary (Health) reviews the progress made under the programme. Members include State Health Secretaries, Representatives of NGOs and DGHS.
- (ii) **National Programme Coordination Committee**, chaired by Additional Secretary (Health) is the coordinating body represented by various Government and Non-Government organisations involved in prevention and control of blindness in India. The committee also includes international funding agencies and representatives of professional organizations.
- (iii) **National Technical Advisory Committee**, chaired by the Director General of Health Services with members consisting of leading ophthalmologists from Government as well as from Non-Government sectors.

## MAJOR ACTIVITIES

### Disease Control

This part of the NPCB covers controlling of cataract, Refractive errors in school going children and corneal blindness are the main target diseases for control. Activities undertaken for each of the target diseases are as follows:

**Cataract:** Identification of bilaterally blind persons, preparation of Blind Registers, screening for operable cataracts, performing surgery and follow up services. The surgical services are available in the Government, NGO, Private fixed facilities (hospitals / institutions) as well as in Eye Camps. These services are free of cost for those who can not afford the costs.

**Refractive Errors:** Training of teachers in primary screening, secondary screening by ophthalmic assistant / teachers and provision of glasses for those who can not afford.

**Corneal Blindness:** Prevention of Vit.- A deficiency (supplementation integrated with Immunization programme), eye donation and Corneal transplantation.

**Other Diseases:** Eye Care facilities available in various sectors for management of glaucoma, infections, posterior segment disorders.

## **Human Resource Development**

Various training courses organized under NPCB include the following:

- (i) Training of trainers, i.e., faculty of Ophthalmology Department of Medical Colleges in ECCE / IOL surgery.
- (ii) Training of Ophthalmologists in ECCE with IOL.
- (iii) Training of Ophthalmologists in Government sector employed on non-surgical jobs and their redeployment on surgical jobs.
- (iv) Training of allied personnel like nurses, ophthalmic assistants to provide outreach, screening, diagnostic, referral and post-operative follow-up services.
- (v) Training in management concern with the development of managerial skills of programme administrators at the Central, State and District levels in managerial skills. This training includes programme management, interpersonal skills (patient-service provider relationship), inventory management, patient logistics, clinic operation, camp organization, utility management, equipment maintenance and management of information. The objective is to promote a common management approach.

In addition, intra-country fellowships are also awarded supported by the WHO in areas of corneal transplantation, laser technology, paediatric ophthalmology and vitreo retinal surgery.

## **Infrastructure Development**

There have been large investments in increasing eye care capacities by construction of new eye wards, dedicated operation theatres and refraction rooms. Non-government organizations have also been supported for setting up ophthalmic units or expansion of existing units. The programme also provides provision for procurement of ophthalmic equipment including Operating Microscope, Yag Lasers, retinoscopes and A-Scans, etc. required for IOL implantations. In addition, support for development of Eye Banks is also available. Vehicles have been provided to facilitate screening of patients and their transportation to Eye Care Facilities.

## Appropriate Technology Initiatives

With the development of facilities for modern technology like IOL implantation and trained providers available, such technology is now within access of the common man. There has been substantial reduction in the cost of such services due to indigenous production of equipment and consumables including IOLs. There has been substantial growth in the production of spectacles which are now affordable even for the poor. Some other initiatives for applying appropriate technology at low cost include special E charts for teachers and village level workers, preservation media for donated eyes, 20 feet measuring tape, portable dark room, etc.

## Partnership between Government, NGO and Private Sector

The National Programme for Control of Blindness has made efforts to foster inter-sectoral coordination, partnership with professional bodies, private sector and NGOs, co-ordination with donor agencies and involvement of community.

Following steps have been taken in this regard:

- i) Constitution of District Blindness Control Society (DBCS) in each district of the country has been undertaken with the prime objective of ensuring multi-sectoral approach to blindness control where besides health sector, education, welfare, media and revenue sectors are involved in various activities. By making them members of DBCS, inter-sectoral coordination is formally sought. The implementation of the programme is undertaken by the **DBCS** under the chairmanship of the District Collector. The societies are given grant-in-aid by Government of India to carry out assigned functions including assistance to NGOs for performing free cataract surgeries.
- ii) Grant-in-aid is provided to voluntary organizations, both for setting up eye care infrastructure and for provision of eye care services to the affected population. Steps have been taken to allot area of operation to make NGOs responsible for controlling blindness in their area.
- iii) Professional bodies like the All India Ophthalmic Society, Indian Medical Association and other bodies are involved in various activities.
- iv) Community involvement, particularly in organizing screening and surgical camps has been an important feature of the programme.

Efforts are made to involve local self-government bodies (Panchayats) and grass root functionaries like teachers, anganwadi workers, and women's bodies and youth fora.

- v) At the State and national level, leading national and international NGOs, private sector, donors and funding agencies are involved in various monitoring, training and planning activities. Representatives of such organizations are members of the National Blindness Control Board and the National Programme Coordination Committees for Blindness Control.

## **MAJOR ACHIEVEMENTS**

### **Cataract Surgery Rate**

One of the parameters used to assess the performance of a defined geographical unit (block, district or State) is Cataract Surgery Rate per 100,000 population. Since 1992 - 93, there has been steady rise in the reported Cataract Surgery Rate (CSR) from 170 per 100,000 population in 1992 - 93 to 330 per 100,000 population in 1998 - 99. Though improvement in reporting is a contributing factor, there has been real increase in CSR in the Government as well as in the Voluntary Sector in the preceding five years.

### **Training of Ophthalmologists**

One of the important activities under the programme is training of ophthalmologists in ECCE / IOL surgery. The training is being imparted using standard curriculum and manual and only at identified centres of excellence in the Government as well as in the NGO sector. The objective is to have at least two trained surgeons in each district of the country.

### **Facilities for IOL surgery**

There has been emphasis on infrastructure and facilities for using services of trained manpower. Major ophthalmic equipment have been supplied including operating microscope, Yag Lasers, Slit lamps, A-Scan, Indirect Ophthalmoscopes, Anterior Vitrectomy Units, Keratometers, Generators, etc. Fumigators and Autoclaves have been supplied to ensure aseptic environments in operation theatres. Ophthalmic sutures and Intraocular lenses have been made available to provide services to the poor sections of the society. As such, the entire package of commodities required for eye care services have been made available in the country during the previous five years which have shown improved output, both quantitatively and qualitatively.

## **FUTURE CHALLENGES**

### **Disease Control**

Steps have now been taken to make the programme a comprehensive eye care programme. In the coming years, emphasis would be equally laid on other blinding disorders including Glaucoma, Posterior Segment Disorders and childhood diseases leading to blindness. There are some pockets where morbidity due to Vitamin A deficiency and Trachoma are prevalent. Refractive errors in school dropouts and in the aged are also to be tackled. There is need to improve follow-up of operated cases to reduce incidence of aphakic blindness. With enhanced rate of IOLs being implanted, Posterior Capsular Opacification will have to be tackled.

### **Human Resource Development**

There would be need to improve basic training in ophthalmology, both at the graduation level and the post-graduate level, so that future generation of general physicians and Ophthalmologists are better equipped to prevent and control eye disorders. It is equally essential to develop a team approach by training allied personnel in Ophthalmic nursing, OT techniques and Community Ophthalmic Health. Management of Eye Care Programme will continue to be challenging. It is equally important to involve general staff in primary eye care, as Ophthalmologists are generally not available in rural areas.

### **Infrastructure and Appropriate Technology Development**

There has been substantial improvement in availability of Eye Care Services in urban and semi-urban areas. However, most of the affected blind population is in those places which are inaccessible or underserved. Eye Camps were meant to reduce this gap between the providers of services and the beneficiaries, but there has been limited success in providing quality services. Encouraging voluntary organizations to set up viable infrastructure may be a viable alternative. A fixed-day approach when Eye Surgeons visit fixed-places on fixed-days has shown encouraging results. Organising Screening Camps and transporting affected cases to fixed Eye Care facilities may be the most feasible and effective option at present.

Modern ophthalmic technology is substantially expensive leading to its availability to a limited section of the population. As a result, the costs in the private sector are not affordable by the majority of population groups. Therefore, there is need for production of indigenous high quality equipment to keep pace with technology. There is also a need to do operational research on various

issues like cost recovery in eye care programmes, models to improve follow-up, hospital retrieval of corneas, diagnostic tools for glaucoma and community participation in eye care.