HEALTH CARE SERVICES DELIVERY

The last fragment of the entire healthcare management system is its service delivery. Its success lies when service is delivered in its expected design. A patient’s experience while receiving treatment characterizes the quality of health care service delivery. United Nations Millennium Development Goals (MDG) clearly underscores the importance of health care delivery. United Nations General Assembly has accorded the highest priority to reaching health services to the poor. Need based health care services, both in preventive and curative forms, should be a part of the country’s poverty reduction strategy. According to David H. Peters et al (2002) the objectives of the Health System and the Health transition are

- Improving the health status of the population, thereby lowering mortality and morbidity rates
- Protecting the population against financial risks while dealing with health problems
- Responding to citizens’ demands and needs.

Professor Regina E. Herzlinger(2006) the editor of “Consumer Driven Healthcare” observed that medical treatment has made astonishing advances over the years. But the packaging and the delivery of the treatment are often inefficient, ineffective and consumer unfriendly.

According to Professor Regina E. Herzlinger(2006), there are six forces affecting innovation in health care. They are-

- **Funding** – The processes for generating revenue and acquiring capital, both of which differ from those in most other industries.
- **Public policy** - The regulations that pervade the industry, because incompetent or fraudulent suppliers can do irreversible human damage.
- **Technology** - The foundation for advances in treatment and for innovations that can make health care delivery more efficient and convenient.
- **Customers** - The increasingly engaged consumers of healthcare, for whom the passive term “patients” seems outdated.
➢ **Accountability** – The demand from vigilant consumers and cost pressured payers that innovative health care products be not only safe and effective but also cost effective relative to competing products.

➢ **Industry players** - The friends and foes lurking in the health care system that can destroy or bolster an innovation’s chance of success.

Today any project on health care management should take into account the quality of delivery and how it reaches the people. No better management person could have explained solution/customer satisfaction than renowned Management Guru Mr. C.K. Prahlad.(2004)

### Table- 3.1 Product perspective Vs Solution perspective

<table>
<thead>
<tr>
<th></th>
<th>Product perspective</th>
<th>Solution perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value proposition</td>
<td>Win by creating innovative products and enriching features of existing products</td>
<td>Win by creating and delivering superior customer solutions</td>
</tr>
<tr>
<td>Value creation</td>
<td>Value is created by the firm</td>
<td>Value is co-created by the Customer and the firms</td>
</tr>
<tr>
<td>Designing offerings</td>
<td>Start with the product or the service and then target customer segments</td>
<td>Start with the customer problem and then assemble required products and services to solve the problem</td>
</tr>
<tr>
<td>Company-customer</td>
<td>Transaction based</td>
<td>Interaction based and centered on the co-creation of solutions</td>
</tr>
<tr>
<td>Relationship</td>
<td>Quality of internal processes and company offerings</td>
<td>Quality of customer –firm interactions</td>
</tr>
</tbody>
</table>

(C.K. Prahalad and Venkat Ramaswamy 2004)

In developing countries, it is poverty by and large that leads to poor health condition, and poor health in turn leads to poverty. Poor countries around the world have adopted many strategies recognizing the vicious cycle of poverty and ill health.

India adopted the Alma-Ata declaration in 1978, which called for, “Health for all by the Year 2000”. Subsequently, the National Health Policy of 1983 supported a
massive expansion of rural health infrastructure – from village to district level. The enthusiasm exhibited by the government in this direction is praiseworthy. But inherent shortcomings in the system prevented the programme from becoming a success. In Indian scenario there is an acute shortage of health care professionals. Then unequal distribution of this invaluable resource compounds the problem. Therefore health care service delivery needs an urgent relook in order to meet the needs of the poor adequately (WHO: 2006).

THE DIMENSIONS OF SERVICE QUALITY

The art of managing the customers, the customer’s expectations and aspirations, created through the creative communication strategies. It is all about managing the promises made to customers and promises kept (Zeithaml and Bitner, 2006).

Parasuraman et al (1985) formulated a service quality model that highlights the main requirements for delivering high service quality.

- Gap between consumer expectation and management perception
- Gap between management perception and service quality specification.
- Gap between consumer expectation and management perception: Management does not always correctly perceive what customers want. Hospital administrators may think that patients want better food; but patients may be more concerned about nurse responsiveness.
- Gap between management perception and service-quality specification: Management might correctly perceive customers’ wants but not set a performance standard. Hospital administrators may tell the nurses to give “fast” service without specifying it in minutes.
- Gap between service quality specifications and service delivery: personnel might be poorly trained or incapable or unwilling to meet the standard; or they may be have conflicting ideas as to standards, such as whether to take time in serving customers or whether to give them fast service.
- Gap between service delivery and external communications: statements made by company representatives and ads affect consumer expectations. If a hospital brochure shows a beautiful room, but the patient arrives and finds the
room cheap and tacky looking, external communications have distorted the
customer’s expectations.

- Gap between perceived service and expected service: This gap occurs when
the consumer misperceives the service quality. The physician may keep
visiting the patient to show that they care, but the patient may interpret this an
indication that something is really wrong.

While improving service productivity, increasing cost may be a concern.
Philip Kotler (2004) lists out seven approaches to increase service productivity
Seven approaches to improving service productivity.

- Have service providers work more skillfully. The company can hire and foster
more skillful workers through better selection and training.
- Increase the quantity of service by surrendering some quality. Doctors
working for some HMOs have moved towards handling more patients and
giving less time to each patient.
- “Industrialize the service” by adding equipment and standardizing production.
- Reduce or make obsolete the need for a service by inventing a product
solution, the way wash and wear shirts reduced the need for commercial
laundries and the way certain authorities reduced the need for tuberculosis
sanitoriums.
- Design a more effective service. How to quit smoking clinics may reduce the
need for expensive medical services later on. Hiring paralegal workers reduces
the need for more expensive legal professionals.
- Present customers with incentives to substitutes their own labor for company
labor. Banks have turned their customers into tellers; FedEx has turned
customers into shippers; gas stations have turned customers into gas pumpers;
and the phone company has turned customers into operators.
- Harness the power of technology to give customers access to better service
and make service workers more productive. Companies that use their web sites
to empower customers can lessen workloads, capture valuable data, and
increase the value of their business. Technology has great power to make
service workers more productive.
Health care service delivery is multidimensional and is not standardized in small towns in general and tribal areas in particular. Therefore there is always a lurking fear in patients (consumer) about service performance, consistency and quality and perception of risk (Valarie A Zeithaml 1981).

The most frequently employed technique is word of mouth to assess the quality of service in rural set ups. Further, it is very difficult to evaluate the process of services tendered, as it is abstract, random and symptoms-dependent.

Some insight can be drawn as to how consumers evaluate service quality from the following table:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>Delivering on promises</td>
<td>Promised delivery date met</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Being willing to help</td>
<td>Prompt reply to customers’ request</td>
</tr>
<tr>
<td>Assurance</td>
<td>Inspiring trust and confidence</td>
<td>Professional and knowledgeable staff</td>
</tr>
<tr>
<td>Empathy</td>
<td>Treating customers as individuals</td>
<td>Adapts to special needs of customer</td>
</tr>
<tr>
<td>Tangibles</td>
<td>Representing the service physically</td>
<td>Distinctive material brochures, documents</td>
</tr>
</tbody>
</table>

(Valarie A Zeithaml, Mary jo Bitner and Dwayne D. Gremler, services Marketing Integ rating Customer focus across the firm. 4th ed.(Boston : McGraw –Hill Irwin,2006),pp.116-120)

According to the above-mentioned table, consumer focus is on five dimensions (Reliability, Responsiveness, Assurance, Empathy and Tangibles) in evaluating service quality. Among these, reliability - delivering on promises - is the most important factor. Here the frontline service provider assumes a great importance (Valarie A Zeithaml 2006).

Given the uniqueness in the customer pattern, that is. each patient coming with different symptoms of diseases, services need to be customized. An employee (health care professional) who feels that personal worth results only from self sacrificing work or occupational achievement would be likely to derive some satisfaction even in a demanding menial position (Blood et al 1969).
It is unlikely that the expectations of the customer are met if service patterns are routine. Need and expectation of the customer will differ inter and intra individually from time to time. Segmentation of services in order to customize will also lead to effective utilization of resources. Therefore, the service provided can be thought to be a “Service Package”. Service package would consist of product dimension of service, including decisions about the essential concept of the service, the range of services provided and the quality and the level of services provided. In addition, the service package must consider some unique factors –the personnel who perform the service, the physical product that accompanies the service and the process of providing the service.

Chart -3.1
Summary of Model Theories: Focus and Key Concepts

<table>
<thead>
<tr>
<th>Theory</th>
<th>Focus</th>
<th>Key concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Level</td>
<td>Stages of Change Model</td>
<td>Precontemplation</td>
</tr>
<tr>
<td></td>
<td>Individual’s readiness to change or attempt to change toward healthy</td>
<td>Contemplation</td>
</tr>
<tr>
<td></td>
<td>behaviours</td>
<td>Decision/determination</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintenance</td>
</tr>
<tr>
<td></td>
<td>Health Belief Model</td>
<td>Perceived susceptibility</td>
</tr>
<tr>
<td></td>
<td>Person’s perception of the threat of a health problem and the</td>
<td>Perceived severity</td>
</tr>
<tr>
<td></td>
<td>appraisal of recommended behaviour(s) for preventing or managing the</td>
<td>Perceived benefits of action</td>
</tr>
<tr>
<td></td>
<td>problem</td>
<td>Cues to action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-efficacy</td>
</tr>
<tr>
<td>Interpersonal Level</td>
<td>Social Learning Theory</td>
<td>Behaviour capability</td>
</tr>
<tr>
<td></td>
<td>Behaviour is explained via a 3-way, dynamic reciprocal theory in</td>
<td>Reciprocal determinism</td>
</tr>
<tr>
<td></td>
<td>which personal factors, environmental influences and behaviour</td>
<td>Expectations</td>
</tr>
<tr>
<td></td>
<td>continually interact</td>
<td>Self-efficacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Observational learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reinforcement</td>
</tr>
<tr>
<td>Community Level</td>
<td>Community Organisation Theories</td>
<td>Empowerment</td>
</tr>
<tr>
<td></td>
<td>Emphasises active participation and development of communities that</td>
<td>Community competence</td>
</tr>
<tr>
<td></td>
<td>can better evaluate and solve health and social problems</td>
<td>Participation and relevance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Issue selection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Critical consciousness</td>
</tr>
<tr>
<td>Organisational Change</td>
<td>Concerns processes and strategies for increasing the chances that</td>
<td>Problem definition (awareness stage)</td>
</tr>
<tr>
<td>Theory</td>
<td>healthy policies and programmes will be adopted and maintained in</td>
<td>Initiation of action (adoption stage)</td>
</tr>
<tr>
<td></td>
<td>formal organisations</td>
<td>Implementation of change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Institutionalisation of change</td>
</tr>
<tr>
<td>Diffusion of Innovations</td>
<td>Addresses how new ideas, products and social practices spread</td>
<td>Relative advantage</td>
</tr>
<tr>
<td>Theory</td>
<td>within a society or from one society to another</td>
<td>Compatibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complexity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trialability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Observability</td>
</tr>
</tbody>
</table>
Service quality model

HEALTH CARE INFRASTRUCTURE IN INDIA

Management of Health care Services Delivery consists of components namely

(a) Infrastructure

(b) Human Resource

(a) Infrastructure

The Infrastructure includes hospital building, a wide range of degradable and replaceable elements starting from selection of technology, which is followed by the selection of company, brands, design, make, cost, maintenance, transportation, etc. The physical infrastructure includes hospitals, clinics, nursing homes, teaching institutes, laboratories, etc. and the human infrastructures include doctors, nurses, and other supporting staffs. Health care delivery system can function when health care centers are adequately manned with doctors, nurses and other supporting staffs.

India’s current health policy has its origins in the nation-building activities at the time of Independence and in the thinking embodied in the Bhore Committee report (Bhore et al. 1946).

A focus on existing service channels and its distribution to meet the health care need of the tribals would provide an insight into the desired output services levels. This does also help us understand, constraints and suggest alternative channels if needed. While providing Health care is the ultimate objective, infrastructure assumes a role as its foundation.

According to The World Health Report (WHO: 2006) “Health care is a labour-intensive service industry that number of workers and quality are positively associated”.

A greater insight into how to bring about a successful health care service delivery does hinge on a wide range of elements like the physical layout of the meeting room, ambience, accessibility, approach, environment, equipment, responsiveness, attitude and flexibility.
It would be apt to aim at specific and need based policies to be effective in health care system. For example, rural masses find it difficult to access the benefit of health care due to physical distance.

While the Primary Health Centre is expected to be manned by the full staff, one male and one female health multipurpose worker is the norm for sub centre and, for tribal areas, 1 female worker for 6 sub-centers.

<table>
<thead>
<tr>
<th>Table- 3.3 Medical Staff in Health Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plain Area</strong></td>
</tr>
<tr>
<td><strong>Tribal area</strong></td>
</tr>
</tbody>
</table>

As per the Rural Health Infrastructure Bulletin 2006, there was a shortage of 19,269 Sub-Centres (SCs), 4,337 Primary Health Centres (PHCs) and 3,206 Community Health Centres (CHCs) as per 2001 population norm. Further, almost 50 per cent of the existing health infrastructure was in rented buildings. Last but not the least, poor upkeep and maintenance and high absenteeism of manpower in rural areas have eroded the credibility of the health delivery system in the public sector.

In an effort to fill the vacancies in Primary Health Centres (PHCs), the Government has recently empowered the Deputy Commissioners to make appointments on contract basis. The Government is also considering policy amendments to encourage private participation in Primary Health Centres (Poverty and Human Development 2002-03).

A research paper brought out by Dr Milind Deogaonkar (2004) deals with the fact that pre-existing inequality in the healthcare provisions is further enhanced by difficulties in accessing it. These difficulties can be due to:

1. Geographical distance
2. Socio-economic distance
3. Gender distance
As discussed earlier, in rural areas, even a basic care is inaccessible to the vast majority of people. The difficulty to access the health care is further compounded by inadequate number of health care professionals. “Thousands of primary medical centers exist, but they are perpetually short of personnel and medicines.” (Naseem Shah 2004)

The following table indicates that health care centers are least in number in Karnataka compared to other three southern states.

<table>
<thead>
<tr>
<th>State</th>
<th>Primary Health Care Centre</th>
<th>Sub centres</th>
<th>Community health centres in Thousands</th>
<th>Population per bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>27364</td>
<td>4579</td>
<td>214</td>
<td>1498</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>29719</td>
<td>4601</td>
<td>204</td>
<td>1526</td>
</tr>
<tr>
<td>Tamilnadu</td>
<td>25614</td>
<td>4237</td>
<td>511</td>
<td>1120</td>
</tr>
<tr>
<td>Kerala</td>
<td>22311</td>
<td>4205</td>
<td>267</td>
<td>391</td>
</tr>
<tr>
<td>Karnataka</td>
<td>18537</td>
<td>3815</td>
<td>124</td>
<td>1283</td>
</tr>
</tbody>
</table>

(Bulletin on Rural Health Statistics in India, June 2002)

Health care professionals have to travel long distances and are away from their families for long periods. Poor transportation to work place and inadequate facilities can negatively affect the quality of service.

Sherry (1991) suggested that a poor “person-environment fit” results in lowered performance and productivity.

Poverty and ill-health nexus is a very old and well-known problem. Search is on for lasting solutions to deal with that problem with the available new technology, knowledge and resources at our disposal. However the application of managerial dimension to tackle the health care threat has been injected only recently. As a result of the changed phenomenon our country began to witness certain positive changes in this sector. For instance, there has been an impressive growth in the number of
hospitals in our country between 1991 to year 2000. The number of hospitals grew from 11,174 in 1991 (57% private) to 18,218 (75% private) in 2000 (Health Information of India 2000&2001).

Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) has increased the financial outlay from Rs 9253 crore- to Rs10252 crore to upgrade hospitals in the country, recognizing the urgent health care need.

Total metalled road in Karnataka is 134062 kms. which shows 70 km of availability of roads for every 100 square kms of geographical area. The average length of metalled roads for each taluka is 766 kms. Nearly 85 taluks where length of road per 100 sq kms of area is less than 32 kms have to be considered for further connectivity of roads (Sixth Five Year Plan GOI).

The approach in India was unlike that of high-income former British colonies such as Canada and Australia. Over time, only countries that have had the political and social support for such systems have been able to maintain the high levels of public investment in health. More than 5 percent of gross domestic product [GDP] is necessary to sustain them (Peters et al. 2002).

India has witnessed market reforms in all sectors including health sector in the recent years. The aim of these market reforms is to stimulate the market economy in general. It is also expected that benefits of this global phenomenon reach all. But uniform accrual of health care benefits did not happen across urban and rural India. Distinctions are evident between urban and rural health care sectors with respect to infrastructure and modern diagnostic equipment. Urban areas have benefited more than the rural areas. Even among the urban population, the rich have benefited far more than the poor.

Given below is the plan of Medical & Public Health and social services by the Government of Karnataka. It can be observed that actual expenditure on health care did exceed the budget outlay suggesting growing expenditure of health care.
Table 3.5
Medical & Public Health and Social Services Tenth Plan - 2002-07
(Government of Karnataka)

<table>
<thead>
<tr>
<th>Annual Plan - 2002-03</th>
<th>Approved Outlay Medical and Public Health</th>
<th>Revised Outlay Medical and Public Health</th>
<th>Actual Expenditure Medical and Public Health</th>
<th>Social Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19247.00</td>
<td>19948.00</td>
<td>17715.31</td>
<td>43798.00</td>
</tr>
<tr>
<td>Annual Plan - 2003-04</td>
<td>13974.00</td>
<td>16884.66</td>
<td>19189.66</td>
<td>55382.94</td>
</tr>
<tr>
<td>Annual Plan - 2004-05</td>
<td>18011.51</td>
<td>15731.51</td>
<td>15731.51</td>
<td>90615.59</td>
</tr>
<tr>
<td>Annual Plan - 2005-06</td>
<td>33239.29</td>
<td>28920.80</td>
<td>N.A</td>
<td>95986.18</td>
</tr>
<tr>
<td>Annual Plan - 2006-07</td>
<td>34098.61</td>
<td>N.A</td>
<td>N.A</td>
<td>95361.68</td>
</tr>
</tbody>
</table>

Commutation to the work place becomes very difficult with poor infrastructure. Managing with the poor infrastructure in rural area builds up a great deal of stress among the health care professionals.

Many big business houses have been attracted to the health care business. As a result, a number of private hospitals have begun to spring up in the length and breadth of our country. Many taluk head quarters also have begun to witness this phenomenon. Again these facilities remain a dream for the rural poor due to the high cost of treatment. Therefore, once again these facilities cater to the health care needs of the rich only.

According to Dr. Nirmala Murthy (2006) Honorary President, Foundation for Research in Health Systems, Bangalore, “Private services are too expensive for them (poor). They therefore resort to care in the unregulated informal sector, which is of questionable quality, which makes them vulnerable to higher health risk.”
A study conducted by Hanagodimath S V et al shows that there are disparities in education and health indexes among various states. Growth of number of Allopathic Hospitals, Dispensaries and PHC’s also important health infra structures like number of doctors and nurses. The number of dispensaries per million populations was 16.6 in the year 1971 which increased to 35.1 in the year 1989 but started to decrease from the year 1999 (34.5 per million populations in 1989 to 22 per million populations in 2001) (Sixth Five Year Plan, Government of India).

The national sample survey in collaboration with the state Directorate of Economics and Statistics conducted a survey of 176 villages on infrastructure facilities during July –December 2002 in Karnataka. The survey found that as many as 38 % of all villages in Karnataka had to travel more than 5 km to reach the nearest dispensary, the most peripheral contact point in the government primary health care system. Also 44% of the villages were more than 5 km away from the nearest primary health centre. For 50% of the villages in the state the nearest government hospital was more than 10 km away. Private hospitals were most scarce, the nearest one being more than 10 km away for 54.5 % of the villages. The problem of resources is not merely confined to their inadequacies; it has to do with their distribution as well. 73 rd amendment of Indian constitution has given constitutional status to rural local bodies in India (Dir. of Econ. and Stat. Infra. Kar. 2002).

“The particular aspect of the problem noted in empirical studies is the massive diversion of rural health care services to family planning campaigns.” (Iyengar and Bhargava 1987 prakasamma 1989, Gupta et al 1992).

“The ratio of hospital beds to population in rural areas is fifteen times lower than that for urban areas in Karnataka. The ratio of doctors to population in rural areas is almost six times lower than that in the urban population.”
The following table explains the facilities available in number of villages in Karnataka

Table 3.6
Facilities available in villages in Karnataka

<table>
<thead>
<tr>
<th>Facilities Available in Karnataka</th>
<th>Percentage of Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Health centre</td>
<td>10.1 %</td>
</tr>
<tr>
<td>Medical Shops</td>
<td>7.9 %</td>
</tr>
<tr>
<td>Govt Hospital</td>
<td>2.7 %</td>
</tr>
<tr>
<td>Veterinary Hospital</td>
<td>13.5 %</td>
</tr>
<tr>
<td>Facility for disabled</td>
<td>Very poor</td>
</tr>
</tbody>
</table>

The private clinic or doctor was more readily available. This facility existed in more than 19.5 % of state villages (M.B. Nanjappa).

According to Mr. M.B. Nanjappa, formerly Director of Economics and Statistics, Karnataka, “Even today many basic items are dearer in rural areas of Karnataka like medical care, water supply and sanitation. Their diet is poor and there are risks of early death particularly among infants”.

Burgeoning but unregulated private healthcare sector makes the gap between rich and poor more apparent. In this regard it is appropriate to have a glimpse of the current scenario with respect to medical care available in India. Though modern well-equipped hospitals both in the government and private sectors are available to the people, the concentration seems to be in urbanized India, thereby leaving a huge gap between rural and urban India’s accessibility to health care. It would be note worthy at this juncture to counter the high cost of health care through a more holistic form of health care system, which we call indigenous or traditional medical system. Initially, the tribals had their own system of medical system to. Not surprisingly, the poor not only suffer a loss of income when they are sick, they have to bear higher insecurity from the illness and the high cost of healthcare services.
Shankar Acharya in his article “Governance and Health” says that while in general, Kerala shows performances comparable to more advanced states in terms of some indicators, other states like Bihar and Uttar Pradesh present a grim picture. Therefore there are great inter and intravariations in the health care delivery systems in our country,

**Role of Transportation and Speed of Services**

Transportation serves as a bridge between networks of logistic services. Lack of effective and adequate transportation system will question the effectiveness of service delivery. Although cost appears to be a major barrier for effective and timely transportation, the objective must be to save human life and not cost per se. Cost advantage philosophy can be harsh and must be carefully employed weighing the benefit and risk ratio. Very often cost of service is linked to performance of service. The cost of service is a variable depending on need and the type of service. Therefore, the mode of transportation has to be justified and has to be relative to the objective to be achieved. Cost becomes immaterial in times of emergency.

Speed of Service- Lapse of time in transportation can result in failure to achieve the objective of saving precious human life. Reduction of distance ensures that only service consistency need be monitored. Consistency differs with different modes of transportation. This variation in consistency is to be taken into account, while designing service delivery system. Average transit time, consistency, urgency (need) must determine the mode of transportation. In short, the need of the hour determines the mode of transport system – whether ordinary or expedited.

Broadly all available health care centers can be put into three categories, namely, governmental health care sector, private health care sector and NGO sector. All of them have varied commercial interests in treating patients along with their organizational vision and mission. Patients perceive services provided by different health care sectors differently. The providers of health care services include mainly the doctors, the nurses, the midwives and other supportive paramedical staffs like the laboratory assistant, the ambulance assistant etc.
**Government Health Care Sector**

This is the sector where almost all poor patients visit to seek redressal to their medical problem. This sector outnumbers the other two sectors due to the resources at its disposal. This sector operates on a very large scale. While some degree of accountability is maintained in the services, poor managerial disbursement of resources leaves the patients dissatisfied. Given the very size of the organization certain competency standards are maintained. However, insensitive approach and crude behavior towards the poor patients repulse the poor. Most of its health budget is utilized in utter disregard of the priorities like service delivery.

**Private Health Care Sector**

This sector differs from its counterpart in its built in philosophy of return on investment (ROI). Corporate health care sectors are accountable to shareholders for its profitable operations. Private sectors employ professional marketers to remain closer to the patients. Overall discipline is more acceptable to patients in this sector. But it has limitations in terms of competency and accountability because health service employees are attracted by higher pay packages. Medium and small players in Private sectors may face resource crunch as medical field is ever advancing. Therefore, it is difficult for the patients to assess the quality of overall service delivery. The opening up of economy witnessed the growth of private healthcare sector in India. But it also played a role in increasing the existing social divide. The cost of medical treatment is so high in the private sector that it denies access to poorer sections of society. With profitability overriding service philosophy, these modern health care centers are urban-biased. Return on Investment remains a motto in large corporate hospitals. This ever-increasing cost of healthcare has making healthcare unaffordable for a growing number of poor people.

**NGO Health Care Sector**

Sensitivity to the needs of the poor and quality care is integrated into the healthcare service delivery in this sector. Good characters and people of social standing distinguish this sector from others. NGO health care sectors enjoy a good reputation of providing health care to the poor. Resources limit its reach to different rural areas. In delivering the health care services to the poor, these organizations have
ample scope to be innovative and to implement efficiently. In other words, the strengths of these organizations lie exactly in areas where the government is weak.

It would be an efficient combined resource if both the government and the NGO organizations join hands in a constructive partnership. Both the sectors have organizational strengths, which are complementary to each other. Rapid climatic changes are occurring due to a number of factors. Some of them are unavoidable. Rapid deforestation, swift urbanization, drifting away from age-old food habits to mention a few, have potential catalytic effect on epidemiological diseases.

(b) Human Resource

Although physical and human infrastructures of health sector are complementary to each other for the development of health care delivery system as a whole, the human component has a greater importance.

Lee Jong-Wook (2006) recognized that the most important crisis in the health sector is the crisis in human resources.

The human side will continuously upgrade the skills and knowledge to formulate plans, strategies and design to effectively manage and deliver the benefits of services. This could be an interesting topic to researchers considering the dynamic nature of the systemic delivery at work place. Another feature of the topic is that although the focus would be on design, the emphasis is on delivery path. With the availability of newer and upgraded technology, its utility can be reached to the poor and the downtrodden only with the retention, motivation and on job satisfaction of the health care professionals.

It is no surprise that developed countries have placed health on highest priority. Although all governments across the globe feel the same need, it is the planning and delivery of health care system, which distinguishes the poor from the rich nations. Consequently numbers of health care professionals are impressively high in developed countries.
According to Prof. Sailabala Debi (2008), “The average density of health care professionals moves in unison with the development status of the countries of the world, i.e., more developed - higher density, less developed - lower density and so on”.

It is a general presumption that the countries with higher burden of diseases need more health care professionals than the countries with lower burden of diseases. But contrary to this, it is found that the countries with lower needs have higher number of health care professionals and the countries with higher needs have fewer numbers of health care professionals. Unreasonable over-concern about health care in developed countries for their citizens has resulted in polarization of resources.

The average density of health care professionals shows that the highly developed countries have about ten times (9.8) more health care professionals than that in less developed countries (1.7). The mean density (4.6) of health care professionals in medium developed countries is nearly half of that in highly developed countries. Both the medium developed and less developed countries are below the all-countries’ average of health care professionals while the highly developed countries are above the all-countries’ average density of health care professionals.

Speybroeck N et.al (2006) observed, “Region of the America, which includes Canada and the United States, contains only 10% of the global burden of disease, yet almost 37% of the world’s health workers live in this region and spend more than 50% of the world’s financial resources for health. In contrast, the African Region suffers more than 24% of the global burden of disease but has access to only 3% of health workers and less than 1% of the world’s financial resources – even with loans and grants from abroad.

This is a clear indication of the importance attached to health of the citizens by developed countries, which in turn is the indicator of the health of the country. In contrast, we do not even have an access to basic health care facilities in our country for the poor. These components play a key role in determining the soundness and the efficiency of the health care system.
With the apparent poor ratio of health professionals to population, the health care delivery system would be thrown out of gear. There is a repeated warning from World Health Organization that metabolic disorders like diabetes and hypertension (slow killing diseases) are on the rise in India.

According to Dr. Nirmala Murthy (2006), in 2000, India had 1.25 million doctors and 0.8 million nurses. That translates into one doctor for every 1800 people. If other systems including Indigenous System of Medicine (ISM) and homeopathic medicine are considered, there is one doctor per 800 people. Public services, which are free for the poor, are poorly staffed and equipped and therefore cannot provide good quality services to the poor.

The rural health problem that our country is facing is much bigger than it has been projected. Although approximately 15,000 new graduate doctors and 5,000 postgraduate doctors are trained every year it is not translated into bridging the gap of demand and supply of health care professionals. Our country has a very impressive annual pharmaceutical production of about 260 billion (INR). Pharmaceutical companies are encouraged to manufacture large quantum due to inexpensive workforce and government subsidy. But again a large proportion of these medicines are exported (Ministry of Chemicals 2002).

The government has promised to increase health care services for the rural areas and the poor by appointing community health workers, and implementing a national insurance program - but little has been done so far to meet those goals. Poor health conditions can be a major source of capability deprivation and hence a cause for unemployment and poverty.

In this context it is interesting to note a quote from Harvard Business School (May 2006). “From a financial perspective a physician who is paid a fat salary by a health maintenance organization may be less interested in say performing a procedure to implant a monitoring device than would a doctor who is paid a fee for such services.”
Resource planning assumes utmost importance to put an efficient system in place. Health care is not an exception. More investments on human resources in the health sector particularly in less developed countries are urgently needed. The broad categories of health care may be preventive provided health care services are delivered in time. When this fails, the poor have to resort to curative care of the advanced state of the disease.

Preventive care includes immunization/vaccination for different communicable diseases, ensuring nutrition of children and mothers, etc. Promotive care includes sanitation, water supply and information about different health awareness programmes. Curative care may be classified as hospital care and ambulatory care. Hospital care requires the patient to be admitted into the hospital (In Patients). Ambulatory care on the other hand includes all types of routine checkup (Out Patients) and ancillary services.

But this challenge requires humane and managerial capacities as much as or more than financial and physical resources. Even if low income countries train and produce enough doctors or try to import them, they still won’t have the economic capacity to pay their wages to retain them. It would be better to provide effective health care to the rural population, especially the disadvantaged groups including women and children, by improving access, enabling community ownership and demand for services, strengthening public health systems for efficient service delivery, enhancing equity and accountability and promoting decentralization. Several NGO programs have demonstrated that integrated preventive and curative care that includes access to nutrition, water supply, sanitation, information, preventive care and curative treatment, results in substantial health gains for the poor. In most western countries the knowledge of indigenous medicine is absent or to a great extent it is ignored. This is because western medicine is dependent on allopathic system. Less developed countries still depend on indigenous medicine for providing health care. It is perhaps appropriate to quote the reasons for ignoring traditional medicine.

“In most developing countries the evolution of health services was dominated by western health care models. These have rarely taken into account the way in which
local people explain illness and use traditional healing methods” (Wright and Walleye 1998).

Perhaps it would be appropriate to study the entire tribal culture primarily to understand native cures for illnesses and their use of different herbs in spite of not having had a formal education.

“World Health Report (2005) seeks to explain why progress in maternal and child health has apparently stumbled so badly in many countries. It shows in detail how stagnations, reversals and slow progress in some countries are clearly related to poverty, HIV/AIDS, and humanitarian crises, leading to exclusion from access to health care. In many countries, the strategies put in place to provide health services have not produced the expected results. While many countries have based their health care systems on health districts, with a backbone of health centers and a referral district hospital, there has often been a failure to implement this model successfully in an exceedingly resource-constrained context. The chapter argues that the health district model still stands as a rational way for governments to organize decentralized health care delivery.

**Job satisfaction and Employee motivation**

Effective delivery of organizational objectives and job satisfaction of the employees are the two sides of the same coins. Although there are numerous studies conducted on job satisfaction there is no direct evidence to show whether job satisfaction is a dependent or an independent variable.

According to Ronan (1970 a) job satisfaction is something, which is highly diverse in its definition, influenced by many situational factors, hierarchic specific and depending on individual backgrounds.

Kornhauser (1930) was first to recognize “job satisfaction” as an independent area of management science and is worthy of research who stated:

Blair B (1964) found that the most important job characteristics as satisfiers were interesting duties, job securities and self-actualization.
It would be relevant to know about employee satisfaction in this context. According to Philip Kotler (2004) “Satisfaction is a feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his/her expectation”.

If the performance falls short of expectation the customer is dissatisfied. if the performance matches the expectation the customer is satisfied and if the performance exceeds expectation the customer is highly satisfied or delighted. (David Glanmick 1999).

Both experts in management science and psychologists are concerned about stress at work place. Stress factor is a practical problem, which needs an urgent redressal without which it can prove costly. A matter of concern is the lower productivity induced by stress on job.

Stress has been shown to reduce employee motivation and the physical ability to perform a task well. This may result in lower production levels and increased errors and accidents (Schultz and Schultz 1990).

The available evidence suggests that job stress contributes to health related problems among employees and organizational problems such as employee dissatisfaction, alienation, absenteeism, and turnover (Beehr and Newman 1978).

The emphasis here is on changes to be made to ensure congenial environment through improved infrastructure for better productivity and not so much on psychological and emotional well being.

“Vocational selection procedures, training programmes, and rest periods are evaluated in terms of efficiency. Why not also to references to satisfaction? Of course the two are not independent; often a study of morale is highly significant in its bearing on output. But even where it is not, we may be interested in the individual and social effects of the work” (Kornhauser A. W 1930).
Enough research is available on the view that service that provides happiness and satisfaction in their job leads to customer satisfaction (Rosenbluth et al. 1991).

Motivation is an important aspect to be considered without which desirable productivity may not be possible to achieve. Peterson et al. (1983) suggested a causal model that comes close to encompassing a number of factors from a variety of disciplines. There are whole ranges of factors in an enterprise that affect the effectiveness of the organization. The factors may be categorized as those pertaining to individuals, the organization and environment. The human error model takes into account both a system failure and a human error.

A number of researchers have studied variables like work satisfaction, behavior, stress versus personality, attentiveness, sleep disorders, aggression behavior modification & classification of human error. Winsemius (1969) studies the tidiness-untidiness continuum in relation to work behaviour, which can be used to analyze not only the skill of the worker but also his psychological adjustment.

Kollarik (1977) analyzed relationship between work satisfaction and various types of work behavior such as job changing, productivity, ego involvement and absenteeism.

Mc Kelvey Robert (1973) investigated attentiveness in a simulated work environment under various incentive conditions and found that a balanced presentation of positive and negative incentive increased the subject’s-role awareness without significantly sacrificing performance efficiency.

**Customer -benefit Services**

A visit to a professionally managed hospital like Narayan Hridayalaya, Bangalore, gives an idea as to how patients across whole spectrum of society, from the poor to the affluent class, derive solution to their health care problems.

In this context customer satisfaction through solutions is best described by Mohanbir Sawhney who writes, “Solutions offer many more avenues for
differentiations than products because they include a variety of services that can be customized in many unique ways for individual customers”.

A patient’s loyalty can be protected and increased when there is a rich network of relationship. Resource planning is a great tool in shaping the services to be perceived in a manner that the customer (patient) at any given point does not switch over to unscientific centers.

According to Henry Assael, services are deeds, processes and performances. The most important difference between goods and services is intangibility as services are actions or performances which cannot be touched or seen in the way that consumers sense tangible goods. But in Health Care Service both goods (equipments and medicine) and services are important. In its conventional form they are separate entities but in this research work both goods and services go hand in hand. Here patients receive medicine, beds, and ambulance availability as goods and courteous personal, quick check up and hospital ambience as services. This can be viewed as “total market offering” (Arun Sharma et al. 2001).

From this perspective, effectiveness of Service delivery depends on how the individual service provider interacts with patients (consumer). Thus actual delivery of services takes place depending on whether promises are kept up or broken.

According to Michael D.Hutt and Thomas W. Speh, (2007). the critical point of interactive contact with a customer is real time marketing. Quality of the services delivered is judged by the patients. Here the patient’s perception about the term “quality” has little relevance. According to patients (consumer), good service is whether service provided to him/her meets or exceeds his expectations (William H. Davidow and Bro Uttal 1989).

Therefore it is imperative that all the services in its design and execution should be carefully done. Uniformity of services need not necessarily be consistent as the quality of delivery is not process driven. It can also be that the quality of service output may vary each time. Variation could be in terms of human resources, equipments, labour, and expertise.
Each patient is different hence a significant human element is involved in executing a quality service. Due to this ununiformity envisaged, it calls for a high degree of quality control programmes in delivering health care services. These programmes need to be fine-tuned from time to time by carefully routing the resources to minimize the human error. Keeping this in view, strategy can be formulated to evaluate the existing services.

The core theme of any such move would be to develop customer (patient) centered concept of health care service delivery. It is needless to state that the core benefit and the resultant patients’ benefit need to be evaluated periodically. The functional effectual and psychological elements have to be ingrained in the systems.

Customer-benefit service concept involves the complete benefit that a patient derives through a bundle of goods and services. This concept of service must shape the strategies of health care service delivery. Although service concepts are different from industry to industry, the focal point is customer-satisfaction. Service concepts are channeled further to service-offer, which defines in more details when where and to whom the services are provided and its form of presentation (Michael D.Hutt and Thomas W. speh. 2007).

An important phase of product service is the delivery system. This means how the consumer receives the benefits of the service system. The delivery system includes carefully conceived jobs for people: personnel with capabilities and attitude necessary for successful performance: equipment, facilities and layouts for effective customer workflow: and carefully developed procedures and processes aimed at a common set of objectives.

Cronin and Taylor (1992), suggest in their paper “Measuring Service Quality Re-examination” based on global examination of service quality said that
- Greater sharing of information with all connected limbs and customers
- Greater emphasis on process flexibility
- Necessity to co-ordinate the process from all service ends so that help is always available to the customers - competitive pressure to introduce new services and products
- Quick response to customers’ needs
- Product and customization
There have been several reform attempts in health care system in India in the last two decades. Market reforms have led to a boom in health sector too. Higher remuneration and facilities have potentially diverted talented practitioners to the private sector creating a larger disparity in the quality of health care. The fast pace of development of the private medical sector and the burgeoning middle class in the new millennium have led to the emergence of a new concept in India of establishing hospitals and health care facilities on a pro-profit basis. Although the importance attached to the health care sector is an appreciable move, uniform health policy may not be a suitable solution for our country. Decentralization and market reform has increased prosperity in general but resulted in increased disparity in wealth and health care access.

The government has developed many health care programmes for the rural poor. But often too many programmes incorporated into single delivery point may not be feasible in the rural set up. Yet another issue, which is diluted, is that formal counseling has never been a part of our health care service delivery in rural areas. It is observed in several studies that the integration of health services with family planning programs often causes the rural population to perceive the primary health centers as hostile to their traditional preference for large families. This perception can make patients to visit health care centres with pre-conceived notions. Therefore primary health centers often play an adversarial role in local efforts to implement national health policies. This can be a hurdle to reach the benefits to the poor. Intentions of egalitarian distribution receive a setback.

Developing countries are faced with severe challenges in the health care delivery mechanism. The emerging market forces in the health sector along with shrinking of public funds to this sector not only affect the delivery mechanism but also lower the quality of health care in the public sector. But a practical problem in providing such a package of services is non-availability of healthcare providers and competent program managers willing to serve in remote, backward areas.

From time to time, the government has tried to meet this staff requirement by making one-year rural service compulsory for medical graduates but that has not been a satisfactory solution. It does not guarantee their performance. The two main pitfalls
affecting our ability to provide services to the poor are: (i) corruption and (ii) negative attitudes of health staff towards the poor. (Nirmala Murthy 2006)

Following is the account taken from the compilation by Dr Sailabala Debi (2008) in “Spatial Distribution of Health Workforce and Health Care Services”.

“It is disheartening to note that the public expenditure on health in India (0.9% of GDP) is even lower than what the low-income countries (1.1% of GDP) spend on health. Karnataka state’s spending (0.7 % of GDP) on health is less than that of India” (Sailabala Debi 2008).

A total of 152 countries of the World were classified as High, Medium and Low on the basis of Human Development Index. There are 48, 64 and 40 countries respectively under high, medium and less developed countries.

Table 3.7 Total and Public Expenditure on Health in Different Countries

<table>
<thead>
<tr>
<th>Countries</th>
<th>Total exp on Health</th>
<th>Public exp on health</th>
<th>Av. Density of HWF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low income</td>
<td>4.7</td>
<td>1.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Middle Income</td>
<td>5.9</td>
<td>3.1</td>
<td>4.6</td>
</tr>
<tr>
<td>High Income</td>
<td>11.2</td>
<td>6.7</td>
<td>9.78</td>
</tr>
<tr>
<td>India</td>
<td>5.0</td>
<td>0.9</td>
<td>0.30</td>
</tr>
<tr>
<td>Karnataka</td>
<td>2.5</td>
<td>0.7</td>
<td>0.36</td>
</tr>
</tbody>
</table>

Source: For LI, MI and HI countries, World Development Indicators, 2007

India; NHA, Govt of India, 2005, Karnataka: CMDR study on NHA, 2007, HDR report, Govt of Karnataka

HWF* - Number of health workforce
Recent analyses show that higher absenteeism, low quality in clinical care, low satisfaction level with care (clinical with regard to courtesy and amenities) and rampant corruption plague the system in the public sector (Das and Hammer, 2007).

The variability in quality of health care is on account of many factors, one of which is attributed to health manpower. From all the above discussions it is very clear that the role of health workforce in influencing the health care services in general and in the backward regions in particular assumes great significance.

Health care services have several dimensions. These are mainly physical, human and financial. As discussed earlier, physical and human resources are two basic inputs for production of health output. But these two cannot be utilized without the help of financial resources. So far as the financial dimension is concerned three important questions are raised: Who pays? How much? And for what? (WHO 2003).

The poor in rural set up expect essential health services to be made available at a price they can afford. Dejected with the unfriendly system, the poor want a health system that respects them and is accountable. Poverty has made them aware of the fact that they need protection from adverse impacts of economic policies. The rapid growth of the private sector’s entry into the health sector and, at the same time, the absence of doctors, nurses and midwives in public sector have been a growing concern as far as the poor are concerned.

The well-known problems in the government health care services range from filling of the posts, frequent transfers of the health workforce in the public sector to the exodus of health personnel from the public sector to the private sectors. Despite the well-intended outlay by the government, these uncontrollable factors affect the delivery system in the health sector significantly. In the context of less developed countries, the health workforce largely affects all types of health care services.

The average density of Health Work Force (HWF) is found to be slightly higher for Karnataka than for India but the co-efficient of variation for Karnataka (53%) is higher than that for India (40%). This implies that the distribution of health workforce across different districts in Karnataka is more uneven than that in India. It
is interesting to note that despite the low density of workforce both in India and Karnataka, the distribution of health workforce in different regions of India and Karnataka is less uneven than that in HD countries.

The following chart provides the association between the expenditure on health and the number of workforce in different countries.

Dr. Sailabala Debi (2008) estimated the geographical variation in the distribution of health workforce across different states of India and across different districts of Karnataka state with the help of Mean, SD and Co-efficient of Variation. The following table presents the Mean, SD and CV of health workforce for India and Karnataka.
Table- 3.8 Variation in Health Workforce: India and Karnataka

<table>
<thead>
<tr>
<th></th>
<th>Descriptive Statistics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>India</td>
<td>Karnataka</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0.30</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>0.12</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>CV (%)</td>
<td>40.00</td>
<td>52.77</td>
<td></td>
</tr>
</tbody>
</table>

Consistent with the recommendations of the World Development Report of 1993, the following health care delivery programmes have been envisaged in our country to help the rural poor by government of India.

- Reviving licentiate medical practitioners to fill the staff vacancies,
- Involving panchayat raj institutions in planning and monitoring health programs,
- Partnering with NGOs in service delivery, regulating private sector
- Increasing the government’s health budget to ensure adequate supplies and maintenance.

Adequate funds are the main requirement to achieve this goal of serving the poor by implementing the policy. It is with this view that World Development Report of 1993 recommended that instead of the government directly providing services to the poor, it should use public funds to provide subsidies to non-government organizations that serve the poor and to give the poor the choice of different service providers. One more important feature of the report was to promote public financing of essential clinical services for the poor as a way of reducing poverty.

There is no dearth of literature to suggest that universal access to health care can be achieved through social insurance. Two options can be explored to reach the objective of access of health care for the poor. These options can be-
Management of social insurance with public-private partnership

Public and private services can be integrated to strengthen the service delivery structure preferably in a set up of community-based organization that would manage with utmost care in the interest of the poor rural patients.

Government subsidy or regulation

Government subsidy can address issues like rapid increases in healthcare costs, inefficiency in the system, and shortage of health care professionals, discriminatory access to health care services, etc.

All under-developed and developing countries are plagued with the problem of universal access of health care. In the last two decades there has been considerable debate on this important social issue. There was also widespread call for privatization of public health care. But it is interesting to note that no country has accepted the concept of privatization and reduced its commitment to public health care.

Although in the early 80’s many developing countries were facing similar problems as India, many countries prioritized the healthcare issue and its universal access. Think tanks in these countries realized that problems had arisen because of flaws in the financing and regulatory systems. They streamlined the system by reforming their financing and regulatory systems and implemented compulsory social insurance.

General revenues finance public health services in our country. Public health care services are supposed to be free for the poor. Studies on the contrary have shown that the poor do not get free services; they in fact bear disproportionately higher burden of healthcare spending than others do. Again the pitfall with the private and social insurance schemes is that it covers only a very small portion of health care cost. The poor either resort to private sector by incurring loans or get no care at all.

A recent study on health care seeking behaviour of Kalanjiam Foundation members has shown “over-use of private care even for minor ailments at twice the cost compared to at government facility. Over-use of private care and high-cost of drug seem to be two problems that poor people suffer from”.

101
It often appears in print media that sometimes even to be allowed to see their newborn babies the poor have to pay. The poor therefore sometimes prefer the paid private services to the free public service. Ground level Staff in public health facilities openly say that, since these people are getting free service, they have no right to expect good behaviour. Our system lacks the mechanism to identify and target the poor when the system is meant to provide service to the poor.

There are reports to suggest that approximately over 20 million Indians are pushed below the poverty line every year because of the effect of out of pocket spending on health care. In urban areas, it is the rich class who visit hospitals. Most of the employed classes enjoy the medical expenses reimbursement benefits. Senior citizens either have the backing of the financial savings or are under the coverage of insurance. Therefore private sectors that attract such “well-to-do” patients continuously plough in resources. Consequently the health care facilities are continuously upgraded in the private healthcare sector. This is a constant cycle, where only the affluent classes reap the benefits.

The inequality between rural and urban health has been augmented due to increased activity of the private healthcare sector. This has resulted in increased number of health care services available at the urban levels and reduced access to quality medical care in the rural areas.

The recent phenomenon of economic liberalization was expected to bring about access and affordability of health care along with other social welfare sectors with decentralized economic units. These reforms were intended to have many far-reaching implications for access to health coverage. But studies show that they have brought about a number of harmful effects by marginalizing the poor and pushing the cost of health care treatment further up. While insurance can be an insulating factor against the financial damage in times of sickness, continued reliance on the employment system to pay the premium to health insurance potentially make the system unviable for the poor.
HEALTH PROMOTION MODELS ADOPTED IN DIFFERENT COUNTRIES

A number of steps have been taken by government agencies of both underdeveloped and developed countries in the last decade to make the health service model more effective. In order to deliver a better service a number of theories and models that underpin the practice of health promotion are designed.

There have been quite a few notable health promotion models by Government policy makers of the US, United Kingdom, Northern Ireland, Australia etc.

The US

The following information has been adapted from the “US Department of Health and Human Services”(2005).

A health promotion model was based on the following principles in 2005.
- An integrated set of propositions that serve as an explanation for a phenomenon.
- Introduced after a phenomenon has already revealed a systematic set of uniformities.
- A systematic arrangement of fundamental principles that provide a basis for explaining certain happenings of life

The Models are as follows:
- A subclass of a theory. It provides a plan for investigating and or addressing a phenomenon
- Does not attempt to explain the processes underlying learning, but only to represent them
- Provides the vehicle for applying the theories

United Kingdom

The National Health Service (NHS) in United Kingdom (UK) provides the majority of healthcare in the nation, from general practitioners to accident and emergency care, long-term healthcare, and dentistry, while the actual delivery of healthcare is implemented through a mix of public and private sector providers. But the Government will not involve private providers to simply replace the shortcomings
of the government hospitals. This will not happen if the incentives of all providers are aligned with desirable outcomes. This is the health care model United Kingdom has developed to take care of its citizens.

The role of hospitals is to support community-based care services in promoting health and wellbeing. An effective hospital system will always be required but in an integrated system the most expensive component – hospital services – must be used as efficiently as possible. It is of primary importance that we adopt a whole systems approach to ensure that we get the right balance of investment in services both in the acute sector and in the primary and community sectors. It is also important that we work together through innovative ways of working to share good practice and share resources to the benefit of the patient. Overall, we will implement the integrated programme of investment and reconfiguration set out in Developing Better Services. Within each Board area, the Area Programme Board has responsibility for taking forward the developments under Developing Better Services.

**Northern Ireland**

The alliances for health programme works to meet this challenge through:

- Policy development and advice;
- Research and evaluation;
- Public and professional information;
- Training and professional development

The workplace is a setting where many people spend the largest proportion of their time. Therefore, employers can play a key role in contributing to the health of their employees and in turn the health of their organization. A workplace where the health and well being of employees is a priority can help improve health and reduce health inequalities.

The health of the workforce both physical and psychological is a major contributor to the success or otherwise of an organization, and can enhance organizational performance and help organizations to gain a competitive advantage.
Organizations implementing workplace health programmes can realize the following benefits:

Some of the actions contained in these health plans include:

- Developing management practices and policies, which support health;
- Providing opportunities and activities to promote health and well-being;
- Implementing improvements to the workplace, which protect the safety and health of employees and promote a positive working environment.

The learning from the initiative has resulted in the following outcomes:

A healthy workplace ‘model’ that small businesses can use to develop their own healthy workplace programmes. This includes three key themes, seven quality criteria and a self-evaluation framework.

A user-friendly programme needs assessment process that results in a tailored health action plan, which meets the needs of the individual organization and its employees. The Health Promotion Agency is committed to supporting the continuing training and professional development needs of all those involved in promoting health in Northern Ireland. To do this it provides a high quality programme made up of a series of training events as well as a comprehensive support service for the development and delivery of training and education in health promotion.

The events are open to people working to promote health and fees are subsidized by the Agency. The training features a range of events including workshops, seminars and conferences. A variety of methods are used to create learning opportunities. These include interactive group work, tutorials and reflective practice. The Agency works in partnership with other organizations to assess need and ensure training events are planned, delivered and evaluated to meet those needs.

**Australia**

The Australian Government program’s integrated service access models support efficient, effective and consistent consumer access to services. They also reflect individual organization characteristics and local circumstances, and further embed community health within the service system. This resource guide has been
developed to assist Community Health Service (CHS) managers to review, select, implement and evaluate service access models. It outlines the importance of service access models in supporting Service Coordination and provides a summary of the context.

It identifies various service access models and describes and compares benefits and challenges associated with each. Factors influencing the selection of a service access model and the desirable outcomes an effective service access system can support are articulated. It includes implementation and change management strategies, as well as evaluation methodologies. Counseling Services in Community Health Services (CHSs) aim to improve well being in the community by offering supportive counseling, therapy, practical support, advocacy and referral and linkage to other services as needed.

Services can be provided on a one-to-one basis and in groups to adults, adolescents, children and families. The aim is to ensure that all Victorians have access to affordable, effective counseling that is physically accessible, and culturally appropriate. CHS Counseling Services can assist with a wide range of issues, for example family and relationship issues, coping with chronic illness, depression, anxiety and related conditions.

Expenditure on CHS Counseling Services in 2005-06 was approximately $16 million. In addition, many CHSs receive funding from other Department of Human Services or Australian Government programs to provide specialized counseling including alcohol and other drugs, gambling, financial counseling, family support, and family violence. Some specialist mental health services are co-located with CHSs. All of these arrangements support better integration and coordination of counseling services at a local level. In 2004-05, CHS Counseling Services provided 248,667 services to approximately 48,200 people. The most common problems were depression, anxiety and family and relationship difficulties.
Quality improvement

Recognizing the burden of common mental health and social problems, such as depression and anxiety, the Victorian Government committed an additional $10.6 million over 3 years from 2000, to a program of service expansion and improvement of CHS Counseling Services. Services were expanded and a review of counseling services in CHS’s was conducted which guided a number of service quality improvements.

Review of counseling services in community health services-

The Review committee proposed initiatives to improve the specification and quality of Counseling Services in CHS’s and was conducted in two stages.

Stage One

The findings of the review are explained in the Stage One report Review of Counseling Services in Community Health Discussion Paper 2002. This report also outlined emerging themes and policy directions for Community Health Program funded counseling services.

As a result of the findings from Stage One a number of initiatives were undertaken including:

- Projects to increase access and quality of counseling provided in rural areas,
- Counseling services in each region received additional funding for expansion
- Minor works grants were provided to improve the physical infrastructure of counseling facilities in CHS’s.

Leadership initiatives were conducted in all regions to sustain improved practices in counseling services by building local networks to discuss ‘best practices’.

Foundations for primary care mental- health treatment services in Victoria 2004, was laid to improve coordination and collaboration between state and Commonwealth departments with responsibility for primary mental health initiatives.
Stage Two

Stage two of the review focused on planning for the future, producing a public consultation draft, Counseling in Community Health Services: Future directions and guidelines for quality counseling. 'Future Directions' also includes draft guidelines that were developed after extensive consultation with stakeholders.

Public consultations were held between March and July 2005. Thirty-eight submissions were also received from Community Health Services, General Practice Divisions, Mental Health Services, Alcohol & Drug Services.

Those agencies and networks that provided written feedback were invited to a series of focus groups that were held in November 2005 to explore the main themes in the feedback. The focus groups were well attended, with representatives from Community Health Services, Mental Health Services, General Practice Divisions and registration boards. The outcomes from the consultations, written submissions and focus groups will inform the development of the final version of the policy paper.

A submission process was held in late 2005 to select ten Community Health Services to demonstrate implementation of the five key guidelines.

There were 36 submissions in total, 24 from rural regions and 12 from metropolitan regions. Due to the high level of enthusiasm demonstrated in the submissions from rural areas, five additional rural project proposals received funding. These projects proposed innovative service development consistent with Future Directions in regional and rural settings.

Given below is a list of participating services. A range of current or new initiatives were guided by the directions outlined in ‘Future Directions’, as follows:

- **Regional Community Health Counselor’s forums**
  
  During 2005-06 each of the eight Department of Human Services Regions selected a Community Health Service to host three regional forums each year for Community Health (CH) Counselors.
The forums were theme based, for example, depression or working with families, and typically theme included a knowledgeable guest speaker; time to work out the theme of the day, presentations, participating in services and discussion time.

The forums provided an opportunity for services to showcase research and innovative approaches to service delivery and enable networking between counselors.

The forums aim to support the implementation and sustainability of service improvements throughout each region and encourage enthusiastic, innovative approaches to counseling.

➢ **Single Session Work project**

The Counseling Review recommended training in Single Session Work (SSW) for Community Health Counselors. Single Session Work is an evidence-based approach that increases responsiveness to client needs and assists services to manage demand. Single Session Work promotes making the most of the first contact, whilst setting up options for further work if necessary.

During 2004-05 training in Single Session Work was offered to Community Health Counselors in rural and metropolitan locations throughout Victoria.

The project was extended to include implementation support to Community Health Services wishing to incorporate SSW into their counseling services and SSW training for Alcohol and Drug Workers and Problem Gambling Counselors based in CHSs.

The project also includes an action research component. An action research framework would be developed to collate and analyze collected data.

The research framework would guide CHSs to monitor actively and map changes in their counseling services resulting from SSW. CHSs would collect pre and post implementation data to inform changes to waiting lists client throughout, and the number of sessions attended by clients.

➢ **Family therapy skills training for community health counselors**

Family therapy skills training was offered to CH Counselors during 2006. The training was held in regional and metropolitan locations throughout Victoria. The
training was aimed at providing CH Counselors with strategies to increase effectiveness in working with families.

- **Clinical Supervision training**
  
  Training in Clinical Supervision was offered during 2006 to senior experienced CH Counselors. This project did include consultation with CHS management and counselors about their views and preferences with regard to the provision of clinical supervision. The purpose of this project was to support the provision of high quality effective counseling in Community Health Services.

- **Developing Better Services**
  
  A model of health care which would provide high quality safe services which are accessible for all and provided by well trained, motivated staff in modern settings.

  The overarching model by Gelberg L et al (1997) for future health care services shall be set out in the strategy, expanding the behavioral model of health services to explore the health status and health services use of homeless and other vulnerable populations”.

**Chart - 3.3**

**The Model For Future Health Care Services**

According to integrated service access model, over the next twenty years two distinct forces will define the shape of health services, namely:

Greater provision of generalist services within communities or on a day-patient or out-patient basis than the case at present. These will include primary care services, chronic disease management, social services maintaining and enhancing independence, and much of the surgery currently provided on an inpatient basis.

Greater specialisation particularly within acute hospital services. This will promote the quality of services by ensuring that professionals deal with a ‘critical mass’ of similar cases to achieve sufficient expertise. New specialised medical technologies and techniques will keep more people alive who would otherwise die through illness or trauma.

Health promotion measures in India

National Planning Commission (MOHFW Statistics, 1998) identified following strategic themes, which must be simultaneously pursued in “stand alone”, or inter-sectoral programmes in order to achieve the national socio-demographic goals for 2010. These are presented below:

A starting point, for a possible model, is the comprehensive package of healthcare recommended by the National Commission of Macroeconomics and Health (NCMH), with a standardized schedule of benefits at an estimated liability of Rs. 1,160 per capita, per annum. The current per capita cost of this schedule of benefits (in all permutations and combinations) should not exceed $40 per capita, per annum.

State governments will identify the target population to be covered, so that its commitment does not exceed its resources. Public funding in healthcare is already directed towards below the poverty line segments, but resources permitting, state governments could consider the inclusion of above poverty line segments.

In this model, the state government would determine the eligibility criteria for identifying service providers. An independent panel would invite applications and
empanel all candidate providers, public, private, not-for-profit NGOs, who meet these criteria

- Decentralized Planning and Programme Implementation

  The 73rd and 74th Constitutional Amendments Act, 1992, made health, family welfare and education a responsibility of village panchayats. The panchayati raj institutions are an important means of furthering decentralized planning and programme implementation in the context of the NPP 2000. However, in order to realize their potential, they need strengthening by further delegation of administrative and financial powers, including powers of resource mobilization.

  Further, since 33 percent of elected panchayat seats are reserved for women, representative committees of the panchayats (headed by an elected woman panchayat member) should be formed to promote a gender sensitive, multi-sectoral agenda for population stabilization that will "think, plan and act locally, and support nationally".

  These committees may identify area specific unmet needs for reproductive health services, and prepare need-based, demand driven, socio-demographic plans at the village level, aimed at identifying and providing responsive, people-centered and integrated, basic reproductive and child health care.

  Panchayats demonstrating exemplary performance in the compulsory registration of births, deaths, marriages, and pregnancies, universalizing the small family norm, increasing safe deliveries, bringing about reductions in infant and maternal mortality, and promoting compulsory education up to age 14, will be nationally recognized and honored.

- Convergence of Service Delivery at Village Levels

  Efforts at population stabilization will be effective only if we direct an integrated package of essential services at village and household levels. Below district levels, current health infrastructure includes 2,500 community health centres, 25,000 primary health centres (each covering a population of 30,000), and 1.36 lakh sub centres (each covering a population of 5,000 in the plains and 3,000 in hilly regions).
Inadequacies in the existing health infrastructure have led to an unmet need of 28 percent for contraception services and obvious gaps in coverage and outreach.

Health care centres are over-burdened and struggle to provide services with limited personnel and equipment. Absence of supportive supervision, lack of training in inter-personal communication, and lack of motivation to work in rural areas, together impede citizens' access to reproductive and child health services, and contribute to poor quality of services and an apparent insensitivity to client's needs.

The last 50 years have demonstrated the unsuitability of these yardsticks for provision of health care infrastructure, particularly for remote, inaccessible, or sparsely populated regions in the country like hilly and forested areas, desert regions and tribal areas. We need to promote a more flexible approach, by extending basic reproductive and child health care through mobile clinics and counseling services.

Further, recognizing that government alone cannot make up for the inadequacies in health care infrastructure and services, in order to resolve unmet needs and extend coverage, the involvement of the voluntary sector and the non-government sector in partnership with the government is essential.

- **Tribal Communities, Hill Area Populations and Displaced and Migrant Populations**

In general, populations in remote and low-density areas do not have adequate access to affordable health care services. Tribal populations often have high levels of morbidity arising from poor nutrition, particularly in situations where they are involuntarily displaced or resettled. Frequently, they have low levels of literacy, coupled with high infant, child, and maternal mortality.

They remain under-served in the coverage of reproductive and child health services. These communities need special attention in terms of basic health, and reproductive and child health services. The special needs of tribal groups, which need to be addressed, include the provision of mobile clinics that will be responsive to seasonal variations in the availability of work and income. Information and
counseling on infertility, and regular supply of standardized medication will be included.

Information, education and communication (IEC) of family welfare messages must be clear, focused and disseminated everywhere, including the remote corners of the country, and in local dialects. This will ensure that the messages are effectively conveyed. These need to be strengthened and their outreach widened, with locally relevant, and locally comprehensible media and messages. On the model of the total literacy campaigns which have successfully mobilized local populations, there is need to undertake a massive national campaign on population related issues, via artists, popular film stars, doctors, vaidyas, hakims, nurses, local midwives, women's organizations, and youth organizations.

In this backdrop it would be pertinent to study the innovations in healthcare in the US. Hospital Corporation of America successfully pioneered a model innovation that allowed it to consolidate the management of dozens of facilities and thereby realize economies of scale unknown in the fragmented health care industry. The national chain – currently 190 hospitals and 200 outpatient centers - succeeded in part because it did not try to compete head to head with politically powerful academic medical centers. Instead it grew mostly through expansion into underprivileged communities, where customers were grateful for a local hospital and where doctors welcomed the chance to work. Although in 1990 it weathered the crisis of misdeeds, with new management it continues to perform well.

According to the Journal of the American Medical Association, September 8, 2004 Switzerland’s excellent healthcare system costs only 11 percent of GDP, verses 16 percent of the United States.

**Views of Important personalities on health promotion**

Former President A.P.J. Abdul Kalam emphasized the need for providing urban amenities in rural areas in our country while speaking to the nation on the eve of the 56th republic days on 26-Jan-2005 (A.P.J. Abdul Kalam).
Macarov (1982) has remarked that a renewed concern for work satisfaction has its origins in two perspectives:

- Traditional assumption that a dissatisfied worker is a less productive one.
- A broad public interest in satisfying work.

These factors have sparked a renewed emphasis on human relations in the work place in the form of quality of work life programmes (Chelte et al 1989).

When Evo Morales was elected as president of Bolivia the entire Latin American countries in the hemisphere congratulated him because he came from an indigenous background. He was hailed as a greatest hero as he represents his country’s indigenous population in the United Nations. Perhaps it would be necessary to applaud him because he worked with indigenous groups for almost 30 long years, educating them on their right to education, health and sustainable wage for living. The quotation given below aptly summarizes the need for improvement in health care delivery in Tribal areas (Front line Magazine Mar 14, 2008).

“Indigenous people are amongst the poorest and most marginalized population groups experiencing extreme levels of health deprivation” (Nettleton C 2004).

The Magsaysay award winner and distinguished doctor Dr. Sudarshan representing the Tribal populations of B.R.Hills, Karnataka, India, has vehemently expressed that both the central and the state Governments have neglected the indigenous health care system for the Tribals. Consequently he is of the opinion that all health care of the Tribals must be addressed with large outlays in both state and central budget. The quotation below justifies the statement.

“Improving indigenous health as well as eliminating the indigenous/non-indigenous health divide requires addressing the knowledge gap related to understanding the patterns of indigenous health deprivation” (Clark S 2005).

Limited studies are available on infant mortality and hardly any study is available on maternal mortality among the tribal population (Basu, 1992).
In the light of the current situation “Insurance” is probably one of the cost effective, systematic risk transfer management mechanism.

**Insurance**

The original blueprint for health care in India through Hospitals and Primary Health Centers in different locations is planned well with the idea of covering all the citizens and taking care of all their health needs. But, in comparison to developed countries, per capita insurance is low in India and India’s insurance penetration is as low as 1.95 percent of the population, which ranks 51 in the world.

Community health insurance (CHI) is slowly gaining momentum in India. A number of agencies have put in place schemes for providing health security to the poor. Models of such insurance schemes include SEWA, Ahmedabad, Yashasvini Health Scheme launched by Narayana Hrudayalaya, Bangalore, the central Government’s Universal Health Insurance Scheme, and Arogya Raksha Yojana launched by Biocon and Narayana Hrudayalaya, Bangalore.

Article 41 of Indian constitution makes a provision for social security and insurance in case of sickness and disablement. Medical claim or med-claim policy recently has been improved. To overcome operational inconvenience all the subheading have been regrouped and offer a re-imbursement of medical expenses to help the insurer towards any illness, injury, disease contracted during the period of insurance coverage.

Even among the educated and medically insured, the knowledge about insurance benefits is poor. A study conducted by Dr R. Vasanth Gopal and Mathew Jose K in Kerala on 300 insured persons, only 18 percent were fully aware, 22 percent were not at all aware and remaining 60 percent were partially aware of the formalities of claiming the benefits. Further studies reveal that 87 percent of the insured persons have not availed of the disablement benefits.

According to census 2001, Kerala achieved literacy rate of 90.92 percent compared to all India rate of 65.38 percent. Kerala being the most literate state and
not being able to achieve the heath care delivery, one can surmise the situation in the illiterate tribal areas in our country (Census 2001).

Health insurance “YASHASWINI” first phase was introduced in Karnataka in 2003. Second phase of YASHASWINI was introduced on 1st June 2004 with the idea of penetrating into the rural market. Selected hospitals and nursing homes in towns and district headquarters are earmarked to provide the health care services under this scheme. But not all the poor could get the benefits of the scheme. Some of the limiting factors of the scheme are

- Member ship validity for one year only
- A few taluk level private hospitals without adequate facilities considered.

Relying on private health insurance is likely to play some role in the short term, since the insurance market has been liberalized, and this consumes little additional public resources. The lack of an effective public health system has led to a booming private system. Growing middle class in the 1990s has led to the emergence of the private medical sector in India, which is increasingly being commercialized.

Three years after a community health insurance scheme was implemented by the government of Karnataka and Karuna Trust around 200,000 poor people have benefited, paying annual premiums of just Rs. 30 per year for insurance cover of Rs 50 per day of hospitalisation (Bharathi Ghanashyam).

As a result, for example, overall health insurance coverage is low in India (Gumber 2002). Estimates suggest that less than 10% of people in India have access to health insurance, and a majority of them belong to the organized sector (Gumber 1998, Ellis et al 2000). This suggests that for people in rural and interior areas there is a need to provide health care service urgently. All tribals fall under the top priority.

Improper health care system delivery leads to self-medication, which is another possibility, resulting in incorrect self-diagnosis and inappropriate dosage thereby inducing the side effects (Chang and Trivedi 2003).
A recent study by Gumber and Kulkarni (2000) suggests that the rural respondents in Gujarat were willing to pay an annual premium of Rs. 80 and Rs. 95 for coverage for hospitalization, chronic ailment, and specialist consultation and an additional 16% if there was coverage of transport costs, medicine costs and diagnostic charges.

However, they are poor, most of them are not in employer-employee relationships, they do not have any form of insurance or security (e.g. maternity benefits, retirement, health insurance), nor do they have representative organizations that might help them fight for these benefits (Ahmad et al. 1991). The Government of India has designed a number of schemes to address this overarching health threat. One of the most fascinating programmes has been National Rural Health Mission.

National Rural Health Mission (NRHM)

National Rural Health Mission (NRHM) provides a broad conceptual framework about the health care programme earmarked for rural poor. NRHM is not a new programme of the Govt. of India but NRHM is a combination of national programmes, namely, the Reproductive and Child Health II project, (RCH II) the National Disease Control Programmes (NDCP) and the Integrated Disease Surveillance Project (IDSP). NRHM will also enable Ayurveda, Yoga, Unani, Siddha and Homeopathy Systems of Health (AYUSH) to become part of the main stream.

It covers the entire country, with special focus on 18 states where the challenge of strengthening poor public health systems and thereby improving key health indicators is the greatest. These are Uttar Pradesh, Uttaranchal, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Orissa, Rajasthan, Himachal Pradesh, Jammu and Kashmir, Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Mizoram, Sikkim and Tripura.

While providing a broad framework for operationalization, NRHM lists a set of core and supplementary strategies to meet its goals.

The core strategy of NRHM will include decentralization of villages and district level Rural Planning and Management and to appoint ASHA to create
awareness, to counsel women and to mobilize community facilities for accessing health related services. ASHA is expected to escort pregnant women for delivery to institutions as PHC/FRU.

The Ayurvedic system will improve management capacity to organize health system and Public Health Services.

Supplementary Strategies include regulation of the private sector to improve equity and reduce out of pocket expenses, foster public–private partnerships to meet national public health goals, re-orienting medical education, introduction of effective risk pooling mechanisms and social insurance to raise the health security of the poor, and taking full advantage of local health traditions.

At the State level, the Chief Minister shall lead the State Health Mission. It shall be co-chaired by the Health Minister with the State Health Secretary, as convenient, and with representation from related Departments, NGOs, private professionals etc.

The District Health Mission shall be led by the Chairman, Zilla Parishad, and be convened by the District Head of the Health Department. It shall have representation from all relevant Departments, NGOs and private professionals.

- **Role of the State Governments under the NRHM**

  The mission covers the entire country. The 18 high focus states are Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Orissa, Rajasthan, Himachal Pradesh, Jammu and Kashmir, Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Mizoram, Sikkim and Tripura. The rest of the states have to follow the pattern of high focus states for programme management units and upgradation of SC, PHC and CHC through integrated financial envelope.

  NRHM provides board conceptual framework. The states would project operational modalities in their State Action Plans, to be decided in consultation with the Mission Steering Group. NRHM would prioritize funding for addressing inter-state and intra-district disparities in terms of health infrastructure and indicators.
The states would sign a Memorandum of Understanding with the Government of India, indicating their commitment of increasing contribution to Public Health Budget (preferably by 10% each year), increased devolution to Panchayati Raj Institutions as per 73rd Constitution (Amendment) Act, and performance benchmarks for release of funds.

- **Roles of the State and District Health Missions**
  The State Health Mission shall prepare the roadmap for architectural correction of the Health System, including merger/integration of vertical structures; delegation and decentralization of administrative and financial powers; empowering the Panchayati Raj Institutions (PRIs); preparation of Operational Guidelines for the implementation of the Mission; logistics arrangements; disease surveillance whereas, the District Health Mission shall control, guide and manage all public health institutions in the district and at sub-district levels. It will be responsible for preparation and implementation of an integrated District Action Plan in respect of funds received from all funding agencies into the District Health Fund.

- **Flexibilities available to the States under the NRHM**
  The States shall have flexibility to project operational modalities in their State Action Plans, which would be decided in consultation with the Mission Steering Group.

  The NRHM is being launched as a framework of partnership among Government of India, related Departments of the Government, especially Departments of Women & Child Development, Drinking Water Supply, Panchayati Raj, and Development of North Eastern Region, State Governments, Panchayat Raj Institutions, NGOs, and private health providers. The detailing of strategies would continue during the Mission with the combined effort of all the stakeholders.
Outlay of NRHM

The Outlay of the NRHM for 2005-06 was Rs. 6713 crores. The Outlay of the Mission in subsequent years did dependent on the Outlay of the Ministry of Health and Family Welfare.

The Budget Outlay of the Ministry of Health and Family Welfare has increased by 30% in 2005-06 over the previous financial year. The States would prepare comprehensive Action Plans for NRHM, indicating priorities for funding, which shall be covered under the increased Outlays expected in the coming years.

- **State contribution in term of funds under the NRHM**
  The States are required to sign MoU with the Govt. of India, committing a minimal increase of 10% for Public Health expenditure in the State Budget each year.

- **Fund flow mechanism**
  The States will be given in advance, an indication of funds to be devolved. State Action Plan would be prepared, which would be funded through a financial envelope for RCH-II and funding under NDCP. The Societies for Health and Family Welfare programmes would be merged into one integrated Society at State and District level to enable “funneling” of funds. The NRHM Budget Head would retain Sub-Budget Heads for the erstwhile Societies.

- **Role of Panchayati Raj Institutions (PRI) in the NRHM**
  For developing the Village Health Plan with the support of the ANM, ASHA, AWW and Self Help Groups, Block Level Panchayat Samitis will co-ordinate the work of the GP in their jurisdiction and will serve as a link to the DHM. The major role of Panchayat is to select ASHA preferably from their village.

- **Reasons to form Programme management units**
  To help in better management of health services in relation to monitoring and implementation of programme with the help of professionally qualified managers, viz., financial personnel and data managers at state and district level.
The states are expected to review the state level performance in at least 4 districts on half yearly basis. Where as the role of primary medical unit (PMU) at district level is to ensure regular and continuous provision of MCH services, including outreach services as scheduled, to strengthen critical interventions and ensure continuous availability of supplies and equipment from the state HQ to the service provider to trained manpower with appropriate skills, to facilitate improvement in context of quality and coverage of services, to ensure adequate and efficient utilization of funds, to monitor the performance of MCH services.

Infrastructure available with AYUSH under NRHM are:
- The personnel of AYUSH may work under the same roof as health infrastructure.
- The posting of any one Doctor of AYUSH System.
- Provision of one specialist of any of AYUSH System as per the local need in CHC.
- AYUSH dispensary, which is not doing well, may be merged with PHC/CHC.
- Cross referral between Allopathic & AYUSH stream should be encouraged based on the need for the same.
- AYUSH Doctors should be involved in IEC health promotion and also supervisory activities.

**Key activities in the Year 2005-2006**

Broadly speaking, the common activities under NRHM, which are uniformly applicable across all States/UTs over and above those proposed under ongoing programmes like RCH and National Disease Control Programmes, are as follows:
- Constitution of State and District Health Missions
- Merger of Health and Family Welfare Societies
- Preparation of State Action Plan, which identifies sectoral needs and priorities
- Finalizing performance benchmarks for MoU
- Signing of MOU between State and GOI
- Preparation of District Action Plans.
- Upgrading two CHCs in every district to the level of Indian Public Health Standards, including the provision for two rooms in these CHCs for bringing AYUSH practitioners under the same roof.
- Formation of Rogi Kalyan Samitis
Immunization strengthening through induction of Auto Disabled Syringes and
arrangement for alternate vaccine delivery at immunization sites.
Organizing mobile medical services at district level.
Organizing Health Camp at AWW level on a fixed day in a month for assured
services for women and child health care.
Provision of household toilets.
Strengthening institutional delivery under Janani Suraksha Yojana (JSY) through
provision of escort and referral services by ASHA & subsidized hospital services
for BPL women.
Establishing systems to increase accountability of health systems to PRIs.
Selection and training of ASHA, including provision of drug kits
Organizing Health Melas as a platform to inform and educate the public on
NRHM
Provision of generic drugs, both AYUSH and allopathic, at village,
SC/PHC/CHC level, for common ailments.

Some activities as mentioned above shall be specially funded in the 18 high
focus States.

Additional inputs: States were expected to receive Rs. 20 lakhs/CHC to two CHCs
in every district for bringing them on par with IPHS.
Maintenance grant of Rs. 1 lakh per CHC, after constitution of Rogi Kalyan
Samiti at that level.
Untied fund of Rs. 10,000 per Sub-centre.
Supply of additional drugs (allopathic and AYUSH) at Sub-centre and PHC
Mobile Medical Unit for district
50% districts in EAG states to get Rs. 10 lakhs/district for district planning
Funds for training of ASHAs

The State and District Action Plans were formulated within the first six
months. Village Action Plans were formulated during the second year.
State Action Plans in Year I would include outlays for RCH II, National Disease
Control Programme and the Integrated Disease Surveillance Programme. The State
Action Plan would also include funds under AYUSH, Finance Commission grants- in-
aid, Rashtriya Sam Vikas Yojana, external bilateral funding, and large NGO grants. Even though budgeting would remain separate for better convergence, the outlays and programmes to improve sanitation, nutrition etc. should also be reflected in the State Action Plan. Once the District Plans are ready, the State Action Plan should be based on those Plans.

For 2005-2006, districts consolidated existing resources within the HFW sector, plan for convergence with nutrition, water and sanitation, and focus on identifying areas in the district with poor indicators and the greatest need of financial resources. After Year 2, detailed District Action Plans, based on Village Health Plans were developed by the DHM.

Project Management cost for all districts is covered under the financial envelope of RCH II. 18 high focus States shall make contractual engagement of skilled professionals.

The institutional arrangement for the NRHM as well as Total Sanitation Campaign are same at District and Village levels. However, budgeting for the two programmes remain separate. Integration with ICDS implies joint planning. Use of AWC as the hub of the NRHM interventions in the village, joint reporting and monitoring on common indicators, and engagement with the AWW are key factors in village planning and implementation.

In the year 2005-2006 there was no separate Budget Head for NRHM. Creation of a new Budget Head for NRHM was from the year 2006. The initial programmes maintained sub-Budget Heads under the omnibus NRHM Budget Head.

There was only one MOU, subsuming the MOU for all programmes integrated under NRHM. Signing of this MoU was the precondition to release of second tranche of funds in October 2005.

Performance benchmarks under NRHM would include performance indicators in respect of all integrated programmes. In addition, NRHM requires the following activities to be completed.
Constitution of State and District Health Missions and Merger of Health and Family Welfare Societies

- Signing of MOU for NRHM between State and GOI

The Frequently asked questions (FAQs) are prepared for the website of the institute so that the PG Students and students of Distance Learning Course may have knowledge about the NRHM programme launched by the Govt. of India and to be implemented by the Ministry of Health & Family Welfare in 18 states of the country. These questions & answers are prepared keeping in view the role of NRHM, the apex body attached to the Ministry of Health & Family Welfare to guide in technical matters. These questions & answers are in simple language, which even the staff at the peripheral level in the states can understand easily.

Being the apex body of the Ministry of Health & Family Welfare, the institute can guide the ministry by preparing teaching module for senior level trainers and for refresher training of ASHA workers. The Training of Trainers can also be undertaken by NIHFW, along with developing refresher training curriculum for ASHA workers and other staff associated with this programme.

Monitoring and mid term evaluation of various schemes like JSY, ASHA workers, IPHS are taken up as a regular activity of the institute for a period of 5 years. End term evaluation can be undertaken at the close of the programme.

BRIEF PHARMACEUTICAL HISTORY IN INDIA

Medicine constitutes an integral part of medical treatment. Acharya states, “Improvements in health indicators will require sustained increases in income-earning opportunities in laggard states and substantial improvements in the provision of health services in them.” Health care costs continue to rise. “Pharmaceutical costs are increasing faster than any other component of the health care expense” (George Merck in 1952).

“Drugs, a “decisive technology”, constitute 20-60% of total health care expenditure in developing countries A major portion of the private health care spending goes to drugs. Per capita private drug spending in India is estimated as US $ 16 (Abel-Smith 1994).
It is imperative that hospitals, drug companies and Government agencies need to formulate the best way to keep health care affordable without adversely affecting access to quality care. Branded drug prescription is a major contributor to cost escalations. With the rising cost of the drugs in view, the Government of India enacted the Indian patent act (IPA) in 1970 in which foreign (MNC) pharma companies could take benefit of the manufacturing process only and not the end product.

Due to inadequate availability of particular brands of drugs with the government stores, urgency (need) pushes patients towards private stores.

Although the Government has made a provision to free distribution of medicine following a prescription of a medical doctor, non-availability in Government hospitals is a concern. Majority of government health care institutions including those in rural areas lack critical inputs such as drugs (Government of India 2002).

As a result patients are forced to go to private drug store. Drug prices act as a strong barrier to seeking effective health care in India, as they are high and people lack the purchasing power. There are instances where people go without drugs (by extension without treatment) or buy a small proportion of the required doses of drugs due to high prices.

“While the share of drugs in private spending is as high as 60-70% depending on the type of illness, their share in government spending is less than 10%” (Varatharajan et al 2002).

Generic drugs offer an important tool for reducing the rate of growth in overall health expenditure. Today drug development is a business decision for a pharmaceutical company. Drug houses, being sales driven, are ultimately responsible to show increase in turnover, higher profits and dividend to share holders. Thus return of investment (ROI) being the nucleus of marketing philosophy, the research driven
companies mostly concentrate on the market of diseases of the rich countries to maximize the profits.

It is estimated that of the 1700 odd drugs developed between 1975 and 1998 in the world, only 13 drugs were developed for the poor man’s tropical diseases (Mishra et al 2003).

Down the years, business compulsions have forced pharmaceutical companies to go in for integration, take over and mergers. As a result, the number of companies is reduced, giving way to monopoly by some.

Statistics provided by the Director General of Commercial Intelligence and Statistics indicate that the number of drug companies have come down from 252 in 1996-97 to 205 in 2002-03 (DGCI&S 2002-03).

Medicines at times could be a lifetime companion in chronic conditions like high blood pressure, diabetes or arthritis. If afflicted in old age, diminishing purchasing power can be an additional negative dimension. Although, since time immemorial, in our country we have treasured the knowledge of alternative medical systems, its formal recognition and integration was late and did not keep pace with the population explosion.

“Only in the late 1970s did official health policy refer to any form of integration between western-oriented medical personnel and indigenous medical practitioners” (Health care in India 1995).

The situation gets increasingly worse as time progresses, as drug prices grow faster than the national or per capita income in India. By one estimate, drug prices growth could be 3-5 times higher in India compared to general inflation of about 5-6%. Drug cost has a lion’s share to contribute to the soaring cost of overall health care. To keep health care affordable without adversely affecting access to quality care is the greatest challenge of our time.

With multinational drug companies dominating the drug market in our country along with their Indian counterparts, one tangible solution could be the Government
stepping in to do large scale manufacturing of generics drugs or to give incentives to private drug manufacturers to produce the generic versions with stringent quality tests.

“With prescription drug (branded drug) costs serving as a major contributor to cost escalations, generic drugs offer an important tool for reducing the rate of growth in overall health expenditure” (G Bhaktavatsalam Vol: XIX Number 1: 16-9).

The National Pharmaceutical Pricing Authority (NPPA) was established in 1997 to improve the speed and transparency of the process of fixing of the prices of bulk drugs and formulations. Drugs industry in general display distinct characteristics compared to FMCG or general commodities in terms of the usual demand-supply-market relationship. There are two major Government Agencies responsible for drug regulation and control.

- Food and Drug Administration (FDA)
- Drug Controller of India (DCI)

While most industries reduce the price of the products with the increase in competition, pharmaceutical companies remain insulated from this factor. An example of best selling cough syrups from multinational pharmaceutical companies in our country bare a testimony to it. With a market growth of over 6 percent and over the counter sales (OTC), the price of these cough syrups have increased over three times in last decade. Fake drugs are also not uncommon. Marketing aggression may sometime lead to over prescriptions of drugs. “A study in Satara district of Maharashtra found that irrational prescriptions were more in the private sector than in the government health services” (Phadke et al 1995).

**Evolution Of Pharmaceutical Companies in India**

Globally, Indian Pharmaceutical industry ranks 4th in terms of volume and 13th in terms of value. Soon after the independence of our country multinational pharmaceutical companies began their marketing activities in India. Most of them were American, British, German and Switzerland pharmaceutical houses. It was a competition-less market and did not suffer a price control for almost a decade and a half after independence in our country.
Till Independence (1947)

Although there was a great need for medicines due to low income levels and underdeveloped supply chain system pharmaceutical companies were almost nonexistent. Post independently, therefore, the government had to pay urgent attention to the problem and pave the way for the pharmaceutical companies to enter.

1947-1970

During this period India suffered from many epidemics. Most anti-infectives had to be imported. In 1954, the first pharmaceutical company was established namely “Hindustan Antibiotic Limited” (HAL). This was followed by “Indian Drugs and Pharmaceuticals Limited” (IDPL) in 1961. This move of the Government averted the need to import important drugs like penicillin and other anti-infective. During this period the Government also invited multinational drug companies, providing them with incentives to set up their manufacturing units in India.

1970-1979

It was increasingly felt that the common man could not afford the medicine due to cost. Therefore, the Government introduced “Drug Price Control Act” (DPCO) with the objective to control the prices of important drugs. This move ushered in the investment and growth of indigenous pharmaceutical companies. Attractive incentives encouraged Indian companies to surge ahead gradually during the period. “Since then, pharmaceuticals have fallen under price regulation in India; a total of 343 drugs – accounting for 85% of the drug market – were under price control in 1979. Profitability allowed on price-controlled drugs ranged from 40 to 75 percent” (Gupta 2002).

1979-1995

The Government made amendments to the existing Drug Price Control Act (DPCO). It reduced the number of drugs under DPCO from 347 to 163. Higher margins were permitted on the production cost. DPCO was again amended in the year 1987 with the number of drugs reduced from 163 to 145. But not all formulations came under price control. Allowed profitability too went up to 150%.
1995-2001

Again the number of drugs under DPCO was reduced from 145 to 74. The same year the Government signed “General Agreement of Tariffs and Trade” (GATT). This was followed by series of changes in the pharma business in India.

2002-2007

In early part of the year 2002, the Government of India framed Pharmaceutical Policy 2002 and announced the criteria for exercising price control on Pharmaceutical products.

By 2002, the share of drugs under price control went further down to 25% or just 32 drugs. Prior to 1995 when the number of drugs under price control was revised downward, the annual price rise of drugs was estimated as 10-50% (Rare 1999).

It would be higher now under price decontrol. Price decontrol seems to have facilitated the growth of Indian Pharmaceutical industry; it registered a growth of 10% between 1996-97 and 2002-03 (CMIE 2004).

Sales have gone up by 88.8% from Rs. 161.50 billion in 1996-97 to Rs. 304.80 billion in 2002-03. It would be higher now under price decontrol. Price decontrol seems to have facilitated the growth of Indian Pharmaceutical industry; it registered a growth of 10% between 1996-97 and 2002-03 (CMIE 2004).

Pharmaceutical companies indulge in aggressive marketing to sell their products. Selling (advertising) costs represent about 15% of the total revenue indicating that obviously, the burden is passed on to the drug buyers.

Way forward

Generic drugs are a cost effective alternative. It may be noted that the American Medical Association, the largest organization of medical doctors in the USA, has stated that generic drug products are acceptable for use by the American public.
Most hospitals in America routinely use generic drugs for treatment of their patients. Not only are generic drugs cost effective but also they are safe. Generic drugs are bioequivalent (Equal in potency in human body) to their brand name twins. As generics tend to be older, they are generally less risky than new drug therapies. (G Bhaktavatsalam Vol : XIX Number 1: 16-9).

Generic drugs offer sound treatment options for patients. Cost of drugs is high due to research, production cost and high mark-up of the retail prices due to limited competition. Large-scale production of generic drugs can be a practical option to provide economical treatment. Most of the drugs are discovered abroad and are marketed in India only after the patent expiry, which means drug firms would have recovered their research expenses but continue to sell at higher prices. The unique feature of the drug industry is that drugs manufactured by non-research firms are perceived to be less effective and safe. But research confirms in our country that this perception is unfounded. This vicious cycle makes the drugs dearer for patients in rural areas.

Only 21 percent of Americans believe Big Pharmaceutical companies do a good job of serving its customers, down from 60 percent a decade ago, according to a recent Harris Poll (World of Marketing.com 2007).

The Government may also impose compulsory licensing so as to make available the much-needed generic drugs. It is seen that many countries do not have the technological capability for manufacturing and supplying generic drugs even if the laws of those countries permit them to do so.