CHAPTER – 1

SERVICE QUALITY IN HOSPITALS IN INDIA

HOSPITALS – AN INTRODUCTION

Most of the health problems require intensive medical treatment and personal care which normally are not available at the patients' home or in the clinic of a doctor. The hospital, a major social institution, offers considerable advantage to both patient and society. It is the place where a large number of professionally and technically skilled people apply their knowledge and skill with the help of world class expertise, advanced and sophisticated equipment and appliances.

The first and foremost function of a hospital is to give proper care to the sick and injured without any social, economic or racial discrimination. In the past, the hospitals were set up as charity institutions, especially for poor and weaker sections of the society. The only function of those institutions was to care for the sick and poor.

Of late, the hospitals are set up with a motto to serve all sections of the society. In addition, some of them are also engaged in conducting and promoting medical education, training and research. The development of health care facilities is influenced not only by the opening of hospitals or health care centers but more so by their administration and management. If hospitals or health care centers are managed properly, there would be expansion in the medical care facilities, even with the least possible investment.

The rapidly changing health care environment characterized by its high level of complexity, uncertainty and dynamic nature, is faced with increased pressures to improve internal efficiency by cutting cost. Where overcrowded
medical and hospital buildings, shortages of medical staff and lack of funds are the reality of today’s health care system, it is ultimately the patient who suffers the highest cost.

These unfortunate realities that govern the health care system make it more difficult for health care managers to provide quality care. Hospitals in India have been organized along British lines with strict hierarchical structure. The term hospital means an establishment for temporary occupation by the sick and injured. Let us look through a few definitions of the term hospital.

According to the directory of hospitals in India, 1988, “A hospital is an institution which is operated for the medical, surgical and / or obstetrical care of in patients and which is treated as hospital by the Central / State Government / Local body or licensed by the appropriate authority.” ¹

The World Health Organization defines modern hospitals thus: “The modern hospital is an integral part of social and medical organization, the function of which is to provide for the population complete health care both curative and preventive and who’s out patient services reach out to the family in its home environment. The hospital is also a center for training of health workers and for bio-social research.”²

On the basis of the above definitions, Goyal, R.C. evolved a comprehensive definition for the hospital: “A modern hospital is an institution which possessed adequate accommodation and well qualified an experienced personnel to provide services of curative, restorative and preventive character of the highest quality possible to all people regardless or race, colour, creed or economic status, which conducts educational and training programmes for the personnel particularly required for efficacious medical care and hospital serviced, which conducts research assisting the advancement of medical science and hospital serviced and which conducts programmes on health education.” ³
Further, it is evident to any country that health care services are critical to their respective economies as they are required to reduce the mortality rate and enhance the quality of life. India has a vast health care system, which was estimated as Rs. 1,087 billion in 2002 ($24 billion), constituting 4.8% of India’s Gross Domestic Product (GDP) and translating to $23 per capita total health care expenditure. Broadly, health care in India is made up of services provided by two sectors: public and private.

After having the initial idea on hospitals, the discussion moves on to understand the health care industry wherein the position of public, private health sectors in India and different classifications of hospitals are discussed.

THE HEALTH CARE INDUSTRY

The health care industry in India is growing at a promising rate. The World Health Organization (WHO) defines health as “not merely the absence of disease or infirmity but rather a state of complete physical, mental and social well being”. The WHO also defines a health system to include all the activities whose primary purpose is to promote, restore or maintain health. Taking this integrated view of health care, the sector would include:

- Contract research organizations (CROs)
- Pharmaceutical manufacturers
- Medical equipment manufacturers
- Diagnostic service centers and pathology laboratories
- Medical care providers: specialist clinics, nursing homes and hospitals
- Third-party support service providers (catering, laundry)
WHO on a periodic basis, similar to any other country, reviews the health status of the Indian population, the size of the Indian healthcare spending, the Government’s approach and policies towards the sector and the size and types of medical care infrastructure in India. Besides, they also report highlights the key trends in the sector, the outlook on demand, and the structural and financial impact of the emergence of private health insurers in the country.

Within the integrated view, the “Medical care providers” category consists of:

- Hospitals
- Pharmaceuticals
- Diagnostic centers
- Ancillary services (such as health insurance and medical equipments)

Of this, the first two segments account for nearly 75% of the total health care market.

**Market Trends**

Improving overall health status and socio-economic pressures have resulted in changes in the demographic profile. With the decline in birth rates, the population aged 0-14 has declined, while on the other hand improvement in life expectancy has led to an increase in the old age population. On average this has led to higher per capita demand for health services.

The type of healthcare service requirement has changed due to the rise of lifestyle-related diseases such as diabetes, cardiovascular diseases, and diseases of the central nervous system. There are around 700,000 new cases of cancer each year and approximately 2.5 million cases in total. It is estimated that there are around 40 million people in India with diabetes, 5.1 million HIV/AIDS patients, and 14 million tuberculosis cases. In the past year, the Indian pharmaceutical industry witnessed a growth of 7 percent, the cardio-vascular
segment recorded a growth of 15 to 17 percent and the anti-diabetes segment 10-12 percent growth.

Compared to a few private institutions primarily in the form of charitable trusts and small nursing homes, recently a number of large sized Indian companies have ventured into healthcare delivery. Companies like Max India, Ranbaxy Laboratories, Escorts, Wockhardt and Birla have established Specialty Hospitals. There is increased interest is diagnostic service as well, with companies such as SRL-Ranbaxy, Nicholas Piramal, and Dr. Lal's laboratory venturing into this field. Emergence of corporate hospitals has led to increased professionalism in medical practices and use of hospital management tools.

The demand for quality healthcare has increased with patients preferring to use private healthcare facilities. Private healthcare service varies in terms of quality and caters more to the needs of the rich, middle class and urban segments of the population. The growth in affluence of the Indian middle-class is adding to this demand. In the period 1993-94 to 2001-2002, aggregate household expenditure on health services has increased at an annual rate of 9.3 percent.

According to a 2002 McKinsey & Co. report on Healthcare, only 14 percent of the population is covered through prepayment because of poor healthcare coverage. Of total healthcare spending, 64 percent is out of pocket expenditure or direct household spending.

**Health Care Indicators**

This part of the study presents the healthcare indicators for India and discusses industry trends. Despite the improving health status of the Indian population, healthcare infrastructure in India has a long way to go towards achieving 100% quality, technology and superior healthcare delivery systems.
While the Central (Federal) Government is limited to family welfare and disease control programs, the state governments are responsible for primary and secondary medical care with a limited role in specialty care. Looking at the healthcare indicators and the growing prevalence of non-communicable lifestyle related diseases, both the government and private sector, realize the need to meet this basic demand. Today, the private sector provides 80 percent of the healthcare service.

**Key Indicators**

The key indicators are provided (as per the Ministry of Health) here in the Table 1.1 to have an understanding of the existing healthcare situation in India.

<table>
<thead>
<tr>
<th>Economic indicators</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (in $ billion, 2004)</td>
<td>674.8</td>
</tr>
<tr>
<td>Per Capita (in $, 2004)</td>
<td>603</td>
</tr>
<tr>
<td>Real Growth (in %, 2004)</td>
<td>6.4</td>
</tr>
<tr>
<td>Health expenditure (in $ billion, 2003)</td>
<td>29.3</td>
</tr>
<tr>
<td>Health expenditure as % of GDP</td>
<td>5.1</td>
</tr>
<tr>
<td>Public expenditure as % total</td>
<td>20</td>
</tr>
<tr>
<td>Private expenditure as % of total</td>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic indicators</th>
<th>1,065,462</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (in million 2004)</td>
<td></td>
</tr>
<tr>
<td>Population growth (in %, during 2004)</td>
<td>1.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic profile</th>
<th>Age/years</th>
<th>1991</th>
<th>2001</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 – 4</td>
<td>36%</td>
<td>35%</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>5 – 54</td>
<td>55%</td>
<td>55%</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>54 and above</td>
<td>10%</td>
<td>12%</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health indicators</th>
<th>Life expectancy (years)</th>
<th>65.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth rate (per 1000)</td>
<td>25.4</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Death rate (per 1000)</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>Infant mortality rate (per 1000)</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Healthcare Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals (numbers)</td>
</tr>
<tr>
<td><strong>Public</strong></td>
</tr>
<tr>
<td><strong>Private</strong></td>
</tr>
<tr>
<td>Hospital beds (numbers)</td>
</tr>
<tr>
<td>Doctors</td>
</tr>
<tr>
<td>Nurses</td>
</tr>
<tr>
<td>Dentists</td>
</tr>
<tr>
<td>Medical colleges</td>
</tr>
<tr>
<td>New doctors every year</td>
</tr>
<tr>
<td>Retail chemist (pharmacy) outlets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of medical and pharmaceutical market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical market (in $ million for 2004)</td>
</tr>
<tr>
<td>Estimated growth rate per year (for 2004)</td>
</tr>
<tr>
<td>Medical equipment market (in $ million for 2004)</td>
</tr>
<tr>
<td>Estimated growth rate per year (for 2004)</td>
</tr>
</tbody>
</table>


**Health Care Market Overview**

Increasing private sector participation in healthcare services is stimulating change in the Indian healthcare industry. According to an ICRA industry report on Healthcare, India spends 5.1 percent of its GDP on health. The health market is estimated at Rs.1, 408 billion ($30 billion) and includes retail pharmaceutical, healthcare services, medical and diagnostic equipment and supplies. While India’s overall expenditure on health is comparable to most developing countries,
India’s per capita healthcare expenditure is low due to its large billion plus population and low per capita income. This scenario is not likely to improve because of rising healthcare costs and India’s growing population (estimated to increase from 1 billion to 1.2 billion by 2012)\(^5\). The government’s share in the healthcare delivery market is 20 percent while 80 percent is with the private sector, as shared earlier.

**Hospitals / Health Care Delivery**

It accounts for over 50% of the total health care market. CRISIL research has estimated the market size of health care delivery market (hospitals) at around 2.29 billion treatments in 2006, which translated into Rs 1,253 billion in 2006. As a result, the market share of the hospitals segment works out to be over 50% in 2006\(^6\).

**Brief Description of Government Health Care Service**

- Primary Care (in rural areas): 22,271 primary healthcare centers and 137,271 sub-centers.
- Secondary Care (healthcare centers in smaller towns and cities): 1,200 PSU (public sector units) hospitals, 4,400 district hospitals, and 2,935 community healthcare centers.
- Tertiary Care (hospitals): 117 medical colleges and hospitals.

The Table 1.2 shows the number of centers opened up by the government of India during various Five Year Plans so far. The numbers include various Primary Health Centers, sub centers and Community Health Centers in India during this period.

Similarly, the Chart 1.1 depicts the growth in number of hospitals and at the corresponding time the growth in number of beds in a span of 50 years in India.
Table 1.2: Establishment of Primary Health Centers, sub centers and Community Health Centers in India – As per different Five Year Plans

<table>
<thead>
<tr>
<th>Period</th>
<th>Community Health Centers</th>
<th>Primary Health Centers</th>
<th>Sub Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Five Year Plan</td>
<td>725</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Five Year Plan</td>
<td>2565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Five Year Plan</td>
<td>4631</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter-Plan Period 3</td>
<td>March 1967</td>
<td>4793</td>
<td>17521</td>
</tr>
<tr>
<td></td>
<td>March 1968</td>
<td>4946</td>
<td>21539</td>
</tr>
<tr>
<td></td>
<td>March 1969</td>
<td>4919</td>
<td>22826</td>
</tr>
<tr>
<td>4th Five Year Plan</td>
<td>5283</td>
<td>33509</td>
<td></td>
</tr>
<tr>
<td>5th Five Year Plan</td>
<td>214</td>
<td>5484</td>
<td>47112</td>
</tr>
<tr>
<td>6th Five Year Plan</td>
<td>761</td>
<td>9115</td>
<td>84376</td>
</tr>
<tr>
<td>7th Five Year Plan</td>
<td>1910</td>
<td>18671</td>
<td>130165</td>
</tr>
<tr>
<td>Inter-Plan Period 7</td>
<td>March 1991</td>
<td>2070</td>
<td>130984</td>
</tr>
<tr>
<td></td>
<td>March 1992</td>
<td>2188</td>
<td>131369</td>
</tr>
<tr>
<td>8th Five Year Plan</td>
<td>2633</td>
<td>22149</td>
<td>136258</td>
</tr>
<tr>
<td>9th Five Year Plan</td>
<td>Sept 2004</td>
<td>3222</td>
<td>142655</td>
</tr>
</tbody>
</table>

(Source agency reported that the latest published data is as per R.H.Statistics in India, March-2002 Bulletin)

SOURCE: - Infrastructure Division, MOHFW, GOI.

Chart 1.1: Number of hospitals and number of beds

Source: Ministry of Health and Family Welfare
The private healthcare providers consist of private practitioners, for profit hospitals and nursing homes, and charitable hospitals. They are numerous and fragmented. In the absence of a national regulatory body, some private providers practice without minimum standards and the quality of treatment varies from one provider to another. The average size of private hospitals / nursing homes is 22 beds, which is low compared to other countries. The Table 1.3 provides the percentage of private hospitals which are established to cater (according to the bed size) the needs of patients.

<table>
<thead>
<tr>
<th>84 percent of private hospitals</th>
<th>&lt;30 beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Percent</td>
<td>30 –100 beds</td>
</tr>
<tr>
<td>5 percent</td>
<td>100-200 beds</td>
</tr>
<tr>
<td>1 percent</td>
<td>&gt; 200 beds</td>
</tr>
</tbody>
</table>

**The Position of Public Health Sector in India**

The state, central and local governments share the responsibility of providing health care in the country. The public sector accounts for 20-25% of the total health care expenditure, which represents only around 1% of the GDP – among the lowest in the world and ahead of only five countries: Burundi, Myanmar, Pakistan, Sudan and Cambodia. Hence, India’s public health care is placed in the bottom 20% of the world. The World Bank’s assessment of the Indian public sector reveals that it is under funded and small in size to meet the current health needs of the country.

The central government pumps in around 15% of the total funds in the health care sector; mostly through national health programmes. The low state of finances indicates that the public health expenditure is to be improved a lot to match the needs of the huge population⁴. The Chart 1.2 shows the comparative expenditures between public and private sectors in India. From 1998 to 2002
span of time, the difference in expenditures incurred show the thrust needed by the public sector.

In addition, public health management is affected by structural problems such as overly centralized planning and control of resources, high political interference in staff postings and transfers in larger states, inflexibility and other bureaucratic roadblocks.

Chart 1.2: Comparative expenditures between public and private sectors in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Govt expenditure as % of total expenditure on health</th>
<th>Private expenditure as % of total expenditure on health</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>1999</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>2000</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>2001</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>2002</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>2003</td>
<td>30</td>
<td>70</td>
</tr>
</tbody>
</table>

Source: WHO

Over the last 2 decades, a majority of tertiary care institutions in the public sector have been facing a resource crunch and have not been able to obtain funds for equipment maintenance, supply of consumables and infrastructure upgradation, to meet the growing demand for complex diagnostic and therapeutic modalities. As a result, preference for private hospitals is increasing in spite of higher expenses.
The Existing Structure of Government Hospitals

Since Independence, India has sought to develop a health care system for all. However, the historic urban-rural bias continues to persist until today. The public health care system that currently exists in rural India, where 75% of the population lives is largely dysfunctional\(^6\). (Peters, et al, 2002) The majority of public spending on health has been spread too thin to be effective. Although the public delivery infrastructure and staff are enormous, they have been under-funded\(^7\). (Peters, et al, 2002)

Total Indian government spending on health, as a percentage of Gross Domestic Product (GDP), is among the lowest of any country in the world, at approximately one per cent of GDP\(^8\). (Peters, et al, 2002) Government primary health care (PHC) resources in the form of manpower and drugs and supplies are scarce, and as a result, quality suffers. Due to this poor quality as well as for reasons of poor access, patients avoid government health centers, and often resort to the private sector, or refer themselves to government hospitals at the district headquarters, where the perceived quality of care is higher\(^9\). (Deolalikar and Vashishtha, 1990) This current pattern of care seeking is inefficient as it increases cost by directly utilizing higher levels of care for PHC.

Whatever little the government spends on primary health care is “being wasted” due to improper planning, financing and organization of the health care delivery system\(^10\). (Duggal, 2000)

The rural health care system is a four-tiered network consisting of facilities providing primary health care that are linked to hospitals providing secondary and tertiary care. The primary health care system is remarkably similar throughout the country and is characterized by district and Taluka hospitals at the top, serving two million people and half a million people respectively, one community health center (CHC) per 100,000 population, one primary health center (PHC) per
30,000 population, and one sub-center per 5,000 population. (World Bank, 1995; Chatterjee, 1997) The sub-centers mainly provide reproductive and child health services and are managed by auxiliary nurses and midwives (ANM). The primary and community health centers provide a combination of inpatient and outpatient care and are staffed by medical doctors and paramedical staff (nurses and physician attendants).

Trained doctors typically refuse to live in rural areas due to the lack of: educational opportunities for their children, transport, and recreational facilities. In addition, drugs and supplies in the government PHCs are often lacking. Several studies (Department of International Health, 1976; Taylor, 1983) showed that the coverage of PHCs was essentially limited to people living within a radius of about two miles.

The government of India tried to address these problems by launching the community health volunteer scheme in 1977. However, these health workers could not meet the needs of rural populations that had increasingly begun to demand “proper medical care” characterized by access to “doctors” and “western medicines.” Consequently, unqualified private providers found a niche market and began to provide these services demanded by the rural population. (Prakasamma, 1993)

Rapidly Increasing Private Sector

Although the state has played a central role in providing medical care in India, private interests were never curbed and as a result, they have grown over the years. A significant proportion of doctors are employed in the private sector and there has been a growth of private nursing homes and hospitals, in certain regions, especially after the late seventies. A few studies have examined various aspects of the private sector like magnitude, characteristics, utilization of out
patient and in patient services, expenditure incurred at the household level and efforts at regulating this sector\textsuperscript{14} (Bhat 1993).

These studies show that there is a significant presence of the private sector which is largely dominated by individual practitioners, both trained and untrained. The institutions in this sector are heterogeneous with different sizes of operation. Some district and state level surveys on utilization patterns point to a high reliance on private practitioners for outpatient care. Private nursing homes and hospitals are largely spread around urban and suburban phenomenally with variation in their distribution across states. Some state and district level studies suggest that there is a strong association between overall socio economic development of a region and growth of private institutions\textsuperscript{15} (Baru 1993, 1998; 963-967).

This is by no means peculiar to India as several developing counties in the Asian region seem to share a similar situation. With many of the countries in this region under the structural adjustment programme of the IMF and the World Bank, there has been a push towards greater privatization of the health sector. However, there is paucity of data across countries about details of the private sector, which needs to be studied in greater depth for similarities and differences.

While looking at the growth of private medical care in India, it is important to place the issue within an international context because prior to independence the British played a major role in introducing allopathic medicine. After independence the experience of the British in providing welfare services influenced the leadership of this country and shaped the structure of health care provision. Like in Britain, health care delivery was financed and supported by the state.

However, private interest in the form of practice by government doctors, private beds in government hospitals and supportive inputs like the pharmaceutical and medical equipments industries, which are largely controlled
by private capital, were also accommodated. Eckstein’s description of private institutions as essentially small and ill equipped in England during the early 1900s is applicable to most nursing homes and hospitals in India. The negative influence of retaining private interests within the public sector was demonstrated in the UK. These issues are extremely relevant to the Indian context as well.

A district level study in Maharashtra on physical infrastructure in private nursing homes revealed that there are differences between small and large nursing homes. The former have little space and do not have adequate staffing or other supportive services\textsuperscript{16} (Nandraj and Duggal 1997).

A similar study in Mumbai found that 62.5% of the private hospitals were located on residential premises and 12.5% were run from sheds which had asbestos roofs. Uneven inputs in physical infrastructure, staffing and equipment have implications for quality of care provided by the private sector. The private sector accounts for 70% - 80% of total health care expenditure in India, which is among the highest proportions of private health care spending in the world. The sector has grown astonishingly in the past 15 to 20 years, making India one of the largest private health care sectors in the world.

The private sector in India comprises assorted providers such as not-for-profit, voluntary, for profit, corporate, trusts, stand-alone specialist services, diagnostic laboratories & pharmacy shops and unqualified. The private health sector accounts for 50% of in patient care and 60% - 70% of out patient care. In 2003, private expenditure on health, as a per cent of total expenditure on health was estimated at around 75.2%, over three times the public spending. As a result, India’s overall expenditure health in 2003 was 4.8% of GDP and, as seen in Chart 1.3, it compared well with other counterparts\textsuperscript{17}. 

\textsuperscript{16}Nandraj and Duggal 1997.

\textsuperscript{17}As seen in Chart 1.3, it compared well with other counterparts.
**The Existing Structure in Private Sector**

India has the largest private health sector in the world with over one million qualified doctors of various systems of medicine\(^{18}\) (CBHI in Peters, 2002) and approximately 1.25 million unqualified rural medical practitioners\(^{19}\) (Rohde and Viswanathan, 1995). Available evidence suggests that private providers are a major source of care in rural areas of India.

Surveys of health seeking behavior in India indicate that the poor increasingly prefer and use private providers of health care, as opposed to public providers\(^{20}\). (Bennett, 1997) This preference is largely due to reasons of access and perceived quality—high of private providers, low of primary health centers (PHCs), in spite of the fact that the services of public providers are free. Overall, high demand for unqualified private providers in rural India is attributable to a complex interaction of factors such as lower cost, accessibility, and the ability of these providers to combine traditional and allopathic medical systems to meet client demand/perceptions of quality care\(^{21}\). (Khare, 1996)
The growth of informal private health providers in India, especially in rural areas is attributable to a complex set of factors such as the lack of alternative and affordable health services and the popularity of the care that they provide. Compared to their urban counterparts, rural populations in India have very limited choice in terms of health services. As the government health system in India is beset by problems of physical distance, long waiting times, unavailability of doctors, the rural private practitioner is by default, the *de facto* primary care provider.

Unqualified private health providers are the primary sources of initial ambulatory care for the rural poor in India. In fact, they are often the first point of contact that the poor have with the health system. In four studies, rural private providers were found to be the mainstay of rural medical care, consulted first (and exclusively in most cases) for 60-80% of illness, especially for women and children. (Rohde & Viswanathan) The existing network of rural practitioners is the *de facto* primary health care system of rural India. (Rohde & Viswanathan)

The private sector poses both threats and opportunities for provision of health care. The existing poor quality of private providers adds to the financial burden of already poor households. Because there is often a delay in correct diagnosis after help seeking and initial non-specific or incorrect treatment, patients often shop for treatment, sometimes visiting two or more providers in search of a cure.

These additional provider visits add unnecessary costs to the diagnosis and treatment of common diseases. Therefore, the current pattern of poor quality care in the private sector is inefficient. Because private providers often do not provide correct diagnosis and treatment of common illness, many unnecessary consultations occur and many unnecessary drugs are prescribed before correct case-management is provided, if at all. The burden of unnecessary expenses falls disproportionately upon the rural poor.
Therefore, although the government spends very little on health care, overall health spending in India is quite substantial at approximately 5.4% of gross domestic product (GDP) as over 80% of all health spending in India occurs in the private sector\(^\text{24}\). (Peters, 2002) As most of this private money is inefficiently spent, it could be captured and redirected to provide more effective health care for the rural poor.

Private providers have a comparative advantage because they are close to the community, both geographically, and socially. Private providers are also trusted by the community, so collaborating with them presents a unique opportunity to increase patient acceptance of care, such as family planning and reproductive health services. Past research has shown that clinic franchising programs that encourage providers to form ties with their local communities and promote family planning among existing clients may have better outcomes\(^\text{25}\). (Field Briefings 1992 and Foreit 1998)

Private providers that have been trained can also be useful agents of change in the community, for example to improve the status of women. The private practitioner can empower local village women by providing health education to patients regarding disease prevention and health promotion behaviors. In addition, due to their current work, rural private practitioners possess the basic skills required to learn how to counsel and provide family planning services (as opposed to lay community volunteers who do not have experience in providing health care). Strength of these providers is their responsiveness to client demands. For example, unqualified private providers understand the medical expectations of patients in India, which typically reflects a combination of traditional and allopathic medicine\(^\text{26}\). (Nichter, 1980; Khare, 1996; Lambert, 1996) Consequently, client satisfaction is typically high. However, the responsiveness to client demands may also prove to be a weakness in that it may contribute to poor technical quality of care.
The major weakness of unqualified private providers is their poor technical quality of care. Because most of the private providers that are consulted in the rural areas are not formally trained or qualified, and due to the fact that they often respond directly to patient demand, the treatment that they provide results in quick relief of symptoms, is usually temporary, and does not adequately treat the existing illness. Sometimes the treatment may even pose harm. Private providers often needlessly administer intravenous lines and misuse antibiotics (either by overuse or incomplete treatment) resulting in drug-resistance and other complications adding unnecessary costs to the health system. Good technical quality of care is closely related to health outcomes. Therefore, if unqualified private providers are to be involved in helping India meet its family planning and reproductive health goals, their technical quality of care must be improved.

NGO or governmental collaboration with informal private providers has the potential to improve access and quality of care, and lead to better health outcomes. Such collaboration is more likely to improve the technical quality of care; however, non technical aspects of service delivery that can be measured by client satisfaction and are likely to improve as well. In sum, collaboration with private providers should prove to be a win-win situation for all by leveraging existing human capital in the community, mobilizing them to provide quality health care, and to act as a system of triage, appropriately referring cases to higher levels of care in the formal health system.

However, at present, there is no uniform nationwide system of registering either practitioners or institutions providing health care in the private voluntary sectors nor is there a mechanism for obtaining and analyzing information on health care infrastructure in these sectors.

A discussion on Health care industry, brief understanding on existing structure of public and private sectors, now leads to focus on different possible classifications of hospitals.
Classification of Hospitals

When it comes to classification of hospitals, many bases can be identified. Few significant classifications in the context of this study are presented here from among them.

Table 1.4: Classification of Hospitals

<table>
<thead>
<tr>
<th>Basis of Classification</th>
<th>Types</th>
<th>Sub Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Based on Type of Services offered</td>
<td>Primary care / Dispensaries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing homes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary care hospitals</td>
<td>• General secondary care hospitals</td>
</tr>
<tr>
<td></td>
<td>Secondary care hospitals</td>
<td>• Specialty secondary care hospitals</td>
</tr>
<tr>
<td></td>
<td>Tertiary care hospitals</td>
<td>• Single specialty hospitals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multi specialty hospitals</td>
</tr>
<tr>
<td>2. Based on Complexity of Ailment</td>
<td>Primary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td></td>
</tr>
<tr>
<td>3. Based on Objectives</td>
<td>General Hospitals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialty Hospitals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching cum Research Hospitals</td>
<td></td>
</tr>
<tr>
<td>4. Based on Ownership</td>
<td>Government hospitals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semi-government hospitals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voluntary agencies hospitals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charity hospitals</td>
<td></td>
</tr>
<tr>
<td>5. Based on Systems of Medicine</td>
<td>Allopathic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ayurveda</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yoga</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unani</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Siddha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Homeopathy</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ayush, 2007
Here is the brief description of these types under each of the classifications.

1. Classification Based on Type of Services Offered
   
a. Primary Care / Dispensaries

   Primary care / Dispensaries are day care hospitals. Thereby, these hospitals do not have any intensive care units (ICUs), there are no surgeries taking place. In other words, these are clinics that provide basic treatment for ailments such as common cold, fever etc.

b. Nursing Homes

   According to the Bombay Nursing Home Registration Act, a nursing home is defined as “any premise used or intended to be used for reception of persons suffering from any sickness, injury or infirmity and for providing treatment or to nurse them, and includes a maternity home, and the expression to carry on nursing home means to receive persons in a nursing home for any of the aforesaid purposes and to provide treatment and nurse them”\(^\text{27}\).

   A nursing home may be operated by a single doctor or a group of doctors practicing together and shall have at least 20 in patient beds. There are various types of nursing homes like maternity homes, orthopedic nursing homes, ophthalmic nursing homes, ear-nose-throat (ENT) clinics, general surgery nursing homes, pediatric nursing homes, dental clinics and cardiac nursing homes.

c. (i) General secondary care hospitals

   A general secondary care hospital is the first hospital where a patient approaches for common ailments. It typically attracts patients staying within a radius of 30 kilometers. The essential medical specialties in general secondary care hospitals include internal medicine, general surgery, obstetrics & gynecology (OBG), pediatrics, ENT, orthopedics and
ophthalmology. Such a hospital will have one central laboratory, a radiology lab and an emergency care department. Generally, secondary care hospitals have 50 to 100 in patient beds, 10% of which are in the ICU. The remaining beds are equally distributed between the general ward, semi-private rooms and single rooms.

(ii) Specialty secondary care hospitals

Specialty secondary care hospitals are typically located in district centre, which offer secondary level care to patients living within a radius of 100 to 150 kilometers. These hospitals usually have in patient bed strength of 100 to 300 beds, 15% of which are critical care or ICU beds. The balance is typically skewed towards private beds rather than general ward beds. Apart from the seven medical specialties as mentioned earlier offered by general secondary care hospital, a specialty secondary care hospital also offers specialties like gastroenterology, cardiology, neurology, dermatology, urology, dentistry and oncology. Apart from this, the hospital may have some surgical specialties but these are optional albeit desirable for such a hospital. Diagnostic facilities in a specialty secondary care hospital include a radiology department, a biochemistry lab, a hematology lab, a microbiology lab and a blood bank. The hospital also has a separate physiotherapy department.

d. (i) Single specialty tertiary care hospitals

A single specialty tertiary care hospital caters to the tertiary care needs or just one ailment or medical specialty. So, for instance there could be a cardiac tertiary care hospital or an oncology tertiary care centre or an ophthalmic centre. Some typical examples include Escorts Heart Institute & Research Centre (New Delhi), Tata Memorial Cancer Hospital (Mumbai), Wockhardt Hospital & Kidney Institute (Kolkata), Sankara Nethralaya (Chennai), National Institute of Mental Health & Neuro
Sciences (NIMHANS), Bangalore, hospitals for Orthopedics, Sports Medicine, Arthritis and Trauma (HOSMAT), Bangalore etc.

(ii) Multi specialty tertiary care hospitals

Multi specialty tertiary care hospitals typically have all the medical specialties under one roof and usually treat multi organ failure, high risk and trauma cases. Most of these hospitals are referral hospitals, getting patients from nursing homes, general secondary care hospitals and specialty secondary care hospitals. It is unlikely for a multi specialty tertiary care hospital to turn away any patient for want of medical specialty or facility.

Typically such hospitals are located in state capitals or metropolitan cities and attract patients staying within a 500 kilometers radius. They have a minimum of 300 in patient beds, which can go up to 1500 beds. Around 20 % to 25 % of the total beds are for critical care patients. The medical specialties must include cardio-thoracic surgery, neuro-surgery, nephrology, surgical oncology, neonatology, endocrinology, plastic and cosmetic surgery and nuclear medicine. In addition, the hospital would have a histopathology lab and an immunology lab as a part of its diagnostic facilities.

e. Classification Based on Complexity of Ailment

<table>
<thead>
<tr>
<th>Ailment</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute infections</td>
<td>Fever</td>
<td>Typhoid / Jaundice</td>
<td>Hepatitis B, C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Common cold</td>
<td>Hepatitis B, C</td>
</tr>
<tr>
<td>Accidents/ Injuries</td>
<td>Dressing</td>
<td>Fracture</td>
<td>Knee/Joint replacements / Brain hemorrhage</td>
</tr>
</tbody>
</table>

Table 1.5: Types of Ailment Complexities
<table>
<thead>
<tr>
<th>Heart diseases</th>
<th>High cholesterol</th>
<th>Strokes</th>
<th>Cardiac arrest / Heart attacks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Heart transplantations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Heart defects like hole in the heart</td>
</tr>
<tr>
<td>Maternity</td>
<td>Diagnosis / Checkups</td>
<td>Normal delivery / Caesarean</td>
<td>Normal delivery / Caesarean</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Complexities arising post delivery such as brain fever</td>
</tr>
<tr>
<td>Cancer</td>
<td>Lump</td>
<td>Tumor</td>
<td>Cancer</td>
</tr>
<tr>
<td></td>
<td>Diagnosis / Checkups</td>
<td>Medical, surgical and radiation therapy</td>
<td>Medical, surgical and radiation therapy</td>
</tr>
</tbody>
</table>

Source: CRISIL Research

3. Classification Based on Objectives

a. General hospitals

The main objective of these hospitals is to provide medical care where teaching and research is secondary. General hospitals (GH) are well-known type of hospitals, which deal with all kinds of diseases, injury and also has an emergency ward to deal with immediate threats to health and capable to deliver emergency medical services. GH has major healthcare facilities with large number of beds for intensive care and long term treatment. The hospital is equipped to take care of medical, surgical, maternity, and psychiatric cases, child birth, and plastic surgery and usually has a resident medical staff.

Example: government run hospitals, primary healthcare centre, district and taluka hospitals. Example: Osmania General Hospital and Gandhi General Hospital.
b. Specialty hospitals

A specialty hospital is dedicated to specific subspecialty care like paediatric centres, oncology centres, psychiatric hospitals and others. Patients will often be referred from smaller hospitals to a specialty hospital for major operations, and consultations with subspecialists. These hospitals have highly trained specialists, high-end technology and have the round the clock services. These hospitals are able to do specialised tests, undertake dialysis for acute renal failure, provide ventilation to patients with respiratory failure and render intensive care to critically ill patients. These hospitals undertake research and have adequate library facilities. These hospitals concentrate on a particular organ of the body and provide medical care in that field only e.g., cancer, dental, psychiatry hospitals, T.B. hospitals, etc

c. Teaching-cum-research hospitals

The main objective of these hospitals is teaching based on research and the provision of healthcare is secondary for example, All-India Institute of Medical Sciences, New Delhi, and Post-Graduate Medical Education and Research Institute, Chandigarh.

4. Classification Based on Ownership

This classification is mainly based on the ownership of the hospital. It includes hospitals like government, semi-government hospitals, voluntary agencies hospitals and private or charitable hospitals. These hospitals provide healthcare services by charging nominal fee from the patient. Many of these hospitals run their services with the help of government and the funds provided by the industrialist.

a. Government hospitals

These hospitals are government-run hospitals; they are either managed by central government or state government. One of the major purposes of these hospitals is to provide free or charged healthcare services at a very nominal cost
to poor people. J J Hospital in Mumbai is an example of such a hospital. However, there are other hospitals like railway hospital or defense hospital which are for providing healthcare services to the employees of Railways and Defense of Government of India.

b. Semi-government hospitals

These hospitals are owned by semi-government organizations like Employees State Insurance (ESI) hospital. Some of the hospitals in this category are managed by various municipalities/gram panchayats, etc.

c. Voluntary agencies hospitals

These hospitals are run with the funds received from various industrialists, national and international charity organizations. Specialists from different countries visit these hospitals at regular internals. Some examples include Sri Satya Sai Super Specialty Hospitals in Puttaparthi, Andhra Pradesh and Bangalore, as well as Amrita Institute of Medical Sciences and Research Centre in Cochin, Kerala.

d. Charity hospitals

In India, charity hospitals have become a popular way of giving back to the society. Many industrialists have sought to serve the society by promoting hospitals. Such hospitals fall into two categories: not-for-profit hospitals and free hospitals. Example: Christian Medical College and Hospital in Tamilnadu.

5. Classification Based on System of Medicine

In addition to allopathic, increasing number of patients is relying on Indian systems of medicine such as Ayurveda, Homoeopathy and Unani. The Indian systems of medicine are recognized by the union government. Most states are actively involved in colleges that teach Ayurveda, Homoeopathy and Unani. In addition, many traditional systems prevail in India particularly in rural and agency areas.
Typically, the local priest or village head administers medicines made of locally-available herbs. While the Indian systems of medicine certainly have their advantages, a majority of rural population relies on these systems due to lack of allopathic facilities, low purchasing power and illiteracy.

The Indian systems of medicine largely rely on herbs from the foot hills of Himalayas, tropical regions of Vindhya Mountains, Western Ghats and the north-eastern part of India. These herbs form the basis for a range of medicines such as decoctions, powders and liquids. In addition to herbs, other sources are also used to prepare medicines in the Indian systems of medicine. The following are the total number of hospitals in system of medicine (Refer Table: 1.6).

<table>
<thead>
<tr>
<th>S. No.</th>
<th>System of Medicine</th>
<th>No. of Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ayurvedic</td>
<td>2,398</td>
</tr>
<tr>
<td>2</td>
<td>Unani</td>
<td>268</td>
</tr>
<tr>
<td>3</td>
<td>Homoeopathic</td>
<td>230</td>
</tr>
</tbody>
</table>

Source: Ayush 2007

a. Allopathic

Allopathy, based on science, is widely-practiced medical system throughout the globe. It is a systematic scientific approach consisting mainly of therapies and surgeries. It is also known as the Modern System of Medicine, whose development has been largely driven by the Western hemisphere. In allopathy, treatment is based on drugs having opposite effects to existing symptoms. Each drug in allopathy is a result of extensive research. Allopathy has been responsible for increasing life expectancy worldwide.

b. Ayurvedic

This is an ancient system of treatment in India. Ayurveda is a science of life system, which deals with causes, symptoms, diagnoses and treatment based
on all aspects of wellbeing: mental, physical and spiritual. Ayurveda, which started as a supernatural-cum-religious practice, matured into a fully developed medical science with eight branches that have parallels in the modern system of medicine. Presently, the system is re-orienting itself to modern scientific parameters. Furthermore, scientists are studying Ayurvedic remedies for lifestyle-related diseases, degenerative and psychosomatic disorders.

c. Unani

The roots of the Unani system can be traced back to Greece. According to Unani principles, the body is made up of four basic elements: earth, air, water and fire, which have different temperaments such as cold, hot, wet and dry. In India, Unani was introduced in 1351 AD by Arabs. Unani medicine gained acceptance by the masses due to its efficacy and non-toxic drugs. According to the Unani system, the health of a human body is based on six essentials, which if neglected, result in diseases.

d. Homeopathic

Homoeopathy is also one of the oldest systems of treatments in India. The word ‘Homoeopathy’ is derived from two Greek words, ‘Homois’ meaning similar and ‘pathos’ meaning suffering. Homoeopathy involves treating diseases with remedies, prescribed in minute doses, which are capable of producing symptoms similar to the disease when taken by healthy people.

Today, Homoeopathy is a rapidly-growing system, known all over the world. In India, Homoeopathy is popular due its safety and lack of side effects. A study indicates that about 10% of the Indian population depends solely on Homoeopathy for health problems. The system is older than a century and a half, well integrated into the roots of the country. ‘Small wonder’, it has been recognized as one of the National Systems of Medicine. Homoeopathy plays an important role in providing healthcare to a large number of people. Its strength lies in its holistic approach towards sick individual.
Share of Tertiary Care Hospitals to Rise

CRISIL Research has estimated that, at present, the share of tertiary care in the total Rs. 1253 billion health care markets is around 15% to 20%. It is their view that in the medium to long term, the market for tertiary care will grow faster than the other two segments (primary and secondary), due to expected rise in complex in patient ailments such as heart diseases and cancer.  

Quaternary care

According to industry experts, a new level of health care called quaternary care is also emerging, in which high end surgeries like replacement of joints and knees, and heart transplantation are undertaken.

Preventive care

There is bright scope for standardized, quality offers through fitness centers, due to heightened health consciousness among common people, urban lifestyles and higher paying power of the population. Such centers could typically include indoor sports like squash and badminton, running tracks (could be indoor), and gymnasium and other sections like aerobics, yoga and medication. Various forms of health counseling, including nutrition advice, exercising, and non medicinal cure to certain diseases would also be revenue earners for such setups. Rejuvenation centers offering services based on naturopathy and yoga could also come under this segment.

The incidence of regular health check ups in hospitals as a preventive measure has also gone up. The various health check up packages include a combination of CBC, blood sugar, cholesterol, urine, stool, digital chest X-Ray, ECG, general examination and renal profile. This trend has opened newer avenues for companies involved in carrying out diagnostic tests.
Upon discussing the classification of hospitals based on different criteria, few supporting activities as discussed below can be looked up.

OTHER SUPPORTS REQUIRED

Diagnostic Centers and Pathology Labs

Diagnostic centers (consisting of independent laboratories) form an integral part of the overall health care industry. Diagnostics can be broadly divided into two groups – clinical testing and diagnostic imaging. The industry is complex owing to the wide spectrum of specialties and technologies involved and the diverse manpower requirements. The market is highly fragmented with few organized players and a large unorganized segment. For instance, Maharashtra and Gujarat have around 5,00,000 small laboratories that perform clinical tests using only technicians and without a single qualified pathologist on a full time basis. According to industry estimates, the Indian diagnostics and pathology laboratory business is around $ 864 million and is growing by 20 % annually. Some Indian lab companies have secured contracts with a few hospitals from the Middle East. The business is highly competitive and price driven with kickbacks and business referral payments in the absence of a regulatory body.

Today, there are 800 private labs in the US, out of which the top 10 laboratories carry out 85 % of the pathological workload. Earlier, like in India, the US too had standalone labs, but the scenario changed with increasing penetration of health insurance. Insurance companies tied up with labs that had quality control, uniform systems of billing and services.

In terms of distribution, almost all tertiary care hospitals have diagnostic and pathology centers attached to them. These services are either owned or outsourced. Some of the corporate hospitals either have their own standalone diagnostic centers or tie up with a center, mainly to gain referrals. While there are service implications of having all tests and diagnostics done in-house, the volumes at most hospitals often do not justify the capital investment required for
a lot of diagnostic equipment. Similarly, certain tests are not done by hospitals simply because the frequency of such tests is low.

**Pharmacy Store Chains**

Like diagnostic and pathology labs, pharmacies are also highly unorganized, but corporate presence in this segment has increased. Corporates have a presence in two types of pharmacies – those located in hospitals, and standalone ones. For instance Apollo has tied up with Indian Oil Corporation (IOC) to set up its pharmacies at the latter’s petrol stations. Pharmacies based in hospitals have direct access to its patients and also require minimal investment. In addition, there is healthy demand for high margin surgical items at these hospital based pharmacies, which boosts their profitability (20 % margin) as compared with the standalone pharmacies (15 % margin). As of today, most of the corporate hospitals are also setting up standalone pharmacy centers, to build brand equity and awareness for their core businesses. However the researchers’ opinion found to be that the diagnostic centers and pharmacies in hospitals should never be outsourced, as the margins are highest in these departments.

**Outsourcing Non Core Activities**

Hospitals are increasingly outsourcing a host of non core activities like housekeeping, laundry, food and beverages and security to third parties. Going by trends in the West, patient records, billing and a lot of other administrative work at hospitals will also be increasingly outsourced. There is a clear opportunity for third party providers of such services, who add value though economies of scale, specialized expertise and better manpower handling capabilities.

**Third Party Administrator (TPA)**

The basic role of a TPA is to function as an intermediary between the insurer and the insured and facilitate cashless service. They are paid a fixed per
percent insurance premium as commission for their service. This commission is generally fixed as a certain percentage of the premium amount. This business has developed recently on account of a growing need of cost effective health care financing options. For instance, Apollo, as an integrated health care provider, offers its members a family health plan, a group policy supported by New India Insurance Company. The Family Health Plan Ltd (a third party administrator of Apollo) has tied up with 600 hospitals across the country and provides various services to patients requiring hospitalization at those hospitals.

The Figure 1.1 describes the working relationship of TPA with other critical links in health sector viz., policy holders, regulators, insurance companies and health care providers.

The discussion on health care industry, different classifications of hospitals, and various supporting activities, proceeds to understand the contributions being offered by hospitals, regulatory mechanism and accreditation requirements.
Hospitals – Offerings (Contributions)

Hospitals, whether they are of primary, secondary, tertiary type or whether public, private, or whether managed by government, partnership, proprietorship, trust or whether corporate, private nursing home or a village RMP based, irrespective of all these, are, undoubtedly,

The hospitals need to understand what really matters to patients. When patients are visiting any hospital, primarily, they are interested in the offerings of the respective hospitals, such as a simple registration / taking appointment for consultation, and an extensive getting admitted to ICU. Many patients consider switch out for failure of providing the expected offerings. The expectations vary from patient to patient and hospital to hospital.

Hospital care is distinctive in two important respects. First, the product purchaser is often not well informed about the quality of the service being purchased and frequently is less informed than the supplier. Moreover, the consumer often cannot experience the quality of the good. In other words, hospital care is credence good\(^30\) (Emons, 1997). Second, consumers almost always pay out-of-pocket much less than the marginal cost of their care, and parties other than direct consumers foot the rest of the bill. Rather than provide care directly, governments primarily pay for care through public insurance.

Non profit firms may earn profits. In fact, many, including hospitals, do. Rather nonprofit firms are precluded from distributing profits to persons who exercise control over the firm. Although such firms can pay reasonable compensation to suppliers of inputs, resulting earnings cannot be distributed. Such earnings must be retained and used by the firm. Because of the non distribution constraint, non profit firms have no owners, that is, persons who control and share in residual earnings\(^31\) (Hansmann, 1996, p. 228).
Medicare beneficiaries pay virtually nothing for hospital care, and the price of other medicare covered services is appreciably reduced as well. A profit-seeking firm would have a stronger incentive to maximize cash flows from Medicare than would a private nonprofit or a public hospital. Increased cash flows may be accomplished by: changing the way that hospitals classify patient diagnoses; increasing use of hospital care not covered by medicare’s fixed per case payment system about which beneficiaries are indifferent because they face a zero out-of-pocket price at the margin; and vertically integrating, that is, by contracting formally or informally with nursing homes or home health agencies and/or with physicians who refer patients to their hospitals.

Further, there may be a difference in quality. Health outcomes depend on quality of care received. Some forms of hospital quality may be easily observed by patients, such as food, size of the room, and even many of the tests that are performed during the stay. Others forms of quality are frequently more difficult for patients to gauge, for example, the quality of hospital personnel.

A profit-seeking hospital may provide high quality on easily monitored dimensions, but cut corners on hard-to-monitor quality measures. For this reason, health outcomes dependent on hard-to-measure quality dimensions might be worse if the patient is hospitalized in a for-profit hospital. For example, we may not expect to find differences in short-term mortality, but we might expect to find differences in mortality and in health and ability to perform various activities, months or even years after a health shock.

The Functions of Hospitals

The functions of hospitals can broadly be understood as under.

1. **Patient Care:** It is the hospitals' primary responsibility among all. The basic existence of hospital is because of serving patient. Both the
outpatients and inpatients need to be attended in variety of supportive ways. The outpatient when initially approaches the hospital must be given due attention by rendering the investigative support, subsequently directed to diagnosis of the reported ailment. Upon the critical examination of the nature and intensity of ailment, the outpatient may be sent back with due follow up procedures or may be referred to be admitted as inpatient.

2. **Nursing Service**: In case the patient is referred to be a inpatient, the patient requires nursing services. This function is critical in the hospital which directly influences the image of the hospital. This function includes nursing care and management. The nurses closely involve with patients in administering the medicines, performing & assisting in the necessary surgery procedures, monitoring, and records patients’ health status, coordinating with other health providers, and implementing nursing care plan as per the doctors’ advice.

3. **Medical Service**: Medical services include supervision of patients’ health condition, extending the necessary support depending on the patients’ health status as demanded. Hospital staff has to involve in processing the patient from one ward to other ward depending on the need. For example, after a surgery, a patient is to be shifted to a room and must be extended with close health care monitoring. Apart from nurses, doctors, paramedical staff and supporting staff will have to take participation in this process. This service will continue from joining till discharge of patients. Prevention of disease is also a focal responsibility of the staff members. For example, Physiotherapists on frequent time basis get engaged with patients who underwent surgeries for a quick recovery and leading to normal body movements.

4. **Support Functions**: Apart from the above mentioned functions, there are many other services which are very much needed for smooth function of
hospital services. They include dietary, laboratory, pharmacy, radiology, house keeping, administration including front office, accounts etc.

5. Medical Research: The other important function of any hospital is to provide an opportunity for doctors to further the medical research. This is needed not only for the growth of the doctors but also the continual advancement of the hospital in terms of providing medical care for critical and relatively new yet complex diseases.

FORMALITIES TO CONSIDER

Options for Operating a Hospital in India

The various options through which a hospital is operated in India include, categorized on the basis of their ownership into:

- Government owned and managed (OGH, NIMS both in Hyderabad)
- Private owned and managed (Apollo, Care both in Hyderabad)
- Trust owned and managed (Durgabai Deshmukh, Hyderabad)
- Trust owned and managed by private party (Apollo in Ahmadabad is owned by a trust and managed by the Apollo group)
- Owned by a private player and managed by another private player (Kamineni Hospitals, Hyderabad with Wockhardt Hospitals)

At present, most of the hospitals in India are owned and managed by either trusts or large corporations. For instance, in Mumbai, the Jaslok or Hinduja Hospitals are run by trusts, while the Wockhardt Hospital has been set up by the pharma major. The Asian Heart Institute in Mumbai is run like a corporate, but a large portion of the hospital’s equity has been raised by a team of nine doctors who have a stake in the hospital. Apollo was also promoted by Dr. Pratap Reddy, a doctor by profession.
Regulatory Framework

The Union Ministry of Health and Family Welfare is instrumental and responsible for implementation of various programmes of national importance like family welfare, prevention and control of major diseases. Apart from these, the ministry also assists states in preventing and controlling the spread of outbreaks and epidemics through technical assistance. In addition to centrally sponsored schemes, the ministry has formulated and is implementing various World Bank assisted projects for the control of various diseases. State health projects are implemented through state governments though the Department of Health has assisted states in availing external assistance. The ministry comprises the following departments, each of which is headed by a Secretary to the government of India: (i) Department of Health, (ii) Department of Family and (iii) Department of Indian Systems of Medicine & Homeopathy.

The Directorate General of Health Services (DGHS), a repository of technical knowledge, is an office attached to this ministry.

Implementing agencies
- Key agency: Ministry of Health and Family Welfare
  - Repository of technical knowledge: Directorate General of Health Services (DGHS)

Policy makers
- Primary advisory and policy making body: Central Council of Health and Family Welfare
  - Support from Planning Commission

Key policies
- National Health Policy

State Level
- State health ministries
- Key personnel at district level: Chief Medical Officer, District Medical Superintendent and District Controller

**Foreign Direct Investment (FDI)**

In India, 100% foreign equity participation is permitted in the sector, and approval is through the automatic approval route. Currently, opportunities to build hospitals in India are coming either through joint ventures or individually.

1. Joint ventures
2. Singapore based Parkway Group Health care PTE Ltd holds 70% of Singapore’s health care market. (Its chains include, Gleneagles Hospital, Mt. Elizabeth Hospital and East Shore Hospital). The company has a joint venture with the Apollo Group.
3. Pacific Health care Holdings, Singapore, has a joint venture with Vitae Health care Pvt Ltd, a company formed by a group of doctors, scientists, and other health care professionals
4. On its own: Columbia Asia, Malaysia, is setting up hospitals in Bangalore.

**Accreditation of Hospitals**

Accreditation of hospitals is a voluntary process by which an authorized agency or organization evaluates and recognizes health services according to a set of standards related to the structure and process that contribute to desirable patient outcomes. In other words, accreditation is a process wherein health care standards are set and compliance of these is measured by a credible accreditation agency. In developing countries like India, where health services are delivered mainly through private health providers, regulation is a vital instrument of government policy.
Since quality is a crucial factor in health care, initiatives to address quality in health care have become worldwide phenomena. There are many methods for the assessment of quality in health care, licensure, certification etc and one of these budding concepts is the accreditation system.

Accreditation can prove to be a yardstick for quality in ‘care’ and will not only improve the standards of care, but also verify compliance of these standards. Accreditation also strengthens community confidence by highlighting a hospital’s commitment to provide safe and quality care. Patients and their relatives therefore get credible and authentic information aiding in their health care related decisions.

**Features of Accreditation Include:**

- It is voluntary
- Use of standards
- Principle of external review
- Reviews are conducted by external professional peers
- Governed by local body
- Aims to encourage incremental growth and development within the health care unit
- The choice of applying for accreditation rests with the management committee of the hospital

**Accreditation System in India**

India, till date, does not have an accreditation agency. Hospitals could apply for international accreditation from agencies such as International Organization for Standardization (ISO), Joint commission International, US (JCI),
and Joint Commission for Accreditation of Health care Organizations (JCAHO), US. However, it is not compulsory for a hospital to apply for accreditation.

In India, it has been seen that it is mostly the corporate hospitals who have obtained accreditations. For example, Indraprastha Apollo Hospitals (Delhi) and Wockhardt Hospitals (Mumbai) have received JCI accreditation. Many hospitals like Max Health care, Sankara Nethralaya have received ISO accreditations. The Quality Council of India (QCI) has planned to form a board for accreditation standards in health care sector in India, the final draft of which was likely to be finalized soon.

Accreditation in Various Countries

The first initiative towards accreditation was taken in the US as early as 1910 by 1987 after several experiments, the JCAHO, a national accreditation programme, established itself as an esteemed accreditation body. JCAHO has high standards of quality assurance and rigorous process of evaluation, which makes it a much esteemed agency for accreditation. Health services certified by JCAHO are given ‘deemed status’. Like, JCAHO is an organization of the US, and Australian Council for Health care Standards (ACHS) is an Australian organization. In Asia, agencies are present in China, Korea and Philippines. Worldwide, there are 22 nations that have accreditation organizations.

The World Health Organization has introduced and implemented accreditation in several countries in Latin America and the Caribbean during 1990-1995, Brazil, Zambia, Indonesia, Iran (1997), Morocco (1999), Malaysia and Thailand.
### Table 1.7: Health care Accreditation in various countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Canadian Commission on Hospital Accreditation</td>
</tr>
<tr>
<td>Australia</td>
<td>Australian Council on Hospital Standards</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>King’s Fund Organizational Audit</td>
</tr>
<tr>
<td></td>
<td>Hospital Accreditation Programme</td>
</tr>
<tr>
<td></td>
<td>Trent Community Hospital</td>
</tr>
<tr>
<td></td>
<td>South Western Health Records</td>
</tr>
<tr>
<td>China</td>
<td>Development of accreditation system in China, has received the Ministry of Public Health’s support since inception in developing standards of regulation</td>
</tr>
<tr>
<td>Latin American and the Caribbean countries</td>
<td>Pan American Health Organization and the Latin</td>
</tr>
<tr>
<td></td>
<td>American Federation of Hospitals</td>
</tr>
</tbody>
</table>

Source: CRISIL Research

### Need for Grading in India

Many researches in this area making us to believe for a formal accreditation of hospitals should be made mandatory in India to regulate and ring about uniformity in standards. Other important reasons for the necessity of grading are:

1. Wide variance in health care delivery
2. Lack of regulations
3. Limited information in choosing hospital
4. Lack of a credible organization to monitor patient care
5. To develop benchmarks
6. Hospital service pricing on patient care
7. Will assist in improving organizational quality, both structurally as well as functionally
8. To enhance brand image of a hospital
9. To inform about competitors’ relative quality
10. Government officials view the accreditation as a regulatory mechanism to harness private health care providers
11. Financial institutions see it as a mechanism to control costs and increase their level of security in providing loans.

Subsequent to the discussion on regulatory framework and accreditation details, a brief thought on overall evolution of health system in India which is divided into three phases is as under.

**EVOLUTION OF HEALTH SYSTEMS IN INDIA**

Depending on the government’s attitude towards the health care sector, evolution of health system in India can be categorized into three distinct phases:

**Phase 1 (1947 – 83) – A poor start**

In this phase, the health policy was based on two principles:

- That none should be denied care for the want of ability to pay.
- Also, that it was the state’s responsibility to provide health care to its people.

During independence, diseases like malaria distressed the Indian population. In terms of infrastructure, the public sector comprised a few city hospitals, while the private sector consisted largely of individual practitioners of Indian systems of medicine and licentiates practicing in villages as family doctors. This period also earmarked the setting up on institutions like the All India
Institute of Medical Sciences (AIIMS) for research and training, which also led to an exodus of highly trained medical doctors.

In the post colonial phase of global development, rebuilding was the keyword, and hence the urge to be at a par with the western norms of modern medicine proved to be too tough to resist for the Indian government. Public health campaigns, particularly during the 1960s and 1970s, were focused on promulgating smaller families and family planning only. Moreover, India failed to tap the effectiveness of traditionally used and accepted modes of medical treatment and gave excessive importance to allopathy, gradually giving a boost to western style curative services, which are urban based as well as costly.


During this phase, the first National Health Policy was framed. This policy underlined the need to push private initiative in health care service delivery, and to increase access to publicly funded primary health care.

Though the first phase of health sector development controlled diseases, its failure to control population, to increase access to basic health facilities in rural areas and to keep up its international commitment towards primary health care, led to the formulation of the National Health Policy 1983. As the resources available for rolling out this policy was limited, the funding from private sectors was a boon and was encouraged. During this period the rural-urban divide in primary health care was mitigated and its reach to the rural population was improved. The state’s focus shifted towards primary health care and a selected list of diseases and health interventions from people’s well being and health. The primary health care facilities in rural areas were fortified and the National Health Programmes (NHPs) for disease control was also reinforced under vertically designed and centrally monitored schemes.
With the establishment of these health facilities, many diseases like guinea worm were eradicated, and many deaths averted. Various states attempted to improve overall performance of public health facilities with a blend of policies. This period also witnessed a fast changing economic scenario and fiscal pressures, which constricted public health spending to some extent. Five significant omissions occurred within the public health policy during this period:

- The private sector was encouraged without provisions for regulations, standards and accreditation processes
- There was an absence of scrutiny and epidemiological surveys to get a more accurate understanding of the changing profile of disease prevalence and incidence
- The constitutional amendments recommended decentralization of programme implementation to a local body or community to increase accountability in the system. However, no benefit was taken concerning the same
- Research & development to uphold technological innovation was neglected
- The government implemented public health programmes that would have been more cost effective for the communities and local bodies and in the process neglected their more fundamental responsibility of laying down a framework, defining rules and monitoring systems to see that no player takes unwarranted advantage of the health sector.

Phase 3 (post 2000) – The National Health Policy 2002

This period witnessed events that would profoundly affect the health sector in three important ways:  

The desire to utilize private sector resources for addressing public health goals

Liberalization of the insurance sector to provide new avenues for health financing

Redefining the role of the state from being only a provider to a financer of health services as well

Broadly speaking, the National Health Policy 2002 focuses on the need for enhanced funding and organizational restructuring of the national public health initiatives in order to facilitate more equitable access to health facilities:

The policy also focuses on those diseases that are principally contributing to the disease burden – TB, Malaria and Blindness from the category of historical diseases; and HIV / AIDS from the category of ‘newly emerging diseases’

The policy sets out the basic objective of achieving an acceptable standard of good health among the general population of the country

It lays emphasis on providing increased access to decentralized public health system, enhancing public health investment, and converging public programmes

It expected to address programmes to put in place a modern and scientific health statistics database and a system of national health accounts

It envisages the gradual convergence of health under a single field administration and emphasizes on implementation of programmes through local self government institutions

It also envisages the identification of specific programmes targeted at women’s health and strengthening of food and drug administration, in terms of both laboratory facilities and technical expertise

The policy, in brief, visualizes a greater contribution from the Central Budget for the delivery of public health services at the state level.
### Table 1.8: Goals specified in the National Health Policy 2002

<table>
<thead>
<tr>
<th>Goals</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eradicate Polio and Yaws</td>
<td>2005</td>
</tr>
<tr>
<td>Eliminate Leprosy</td>
<td>2005</td>
</tr>
<tr>
<td>Eliminate Kala Azar</td>
<td>2010</td>
</tr>
<tr>
<td>Eliminate Lymphatic Filariasis</td>
<td>2015</td>
</tr>
<tr>
<td>Achieve zero level growth of HIV / AIDS</td>
<td>2007</td>
</tr>
<tr>
<td>Reduce mortality by 50 % on account of Tuberculosis, Malaria and other vector and water borne diseases</td>
<td>2010</td>
</tr>
<tr>
<td>Reduce prevalence of blindness to 0.5 %</td>
<td>2010</td>
</tr>
<tr>
<td>Reduce IMR to 30/1000 and MMR to 100 / lakh</td>
<td>2010</td>
</tr>
<tr>
<td>Increase utilization of public health facilities from current level of &lt;20 to &lt;75</td>
<td>2010</td>
</tr>
<tr>
<td>Establish an integrated system of surveillance, national health accounts and health statistics</td>
<td>2005</td>
</tr>
<tr>
<td>Increase health expenditure by government as a % of GDP from the existing 0.9 % to 2.0 %</td>
<td>2010</td>
</tr>
<tr>
<td>Increase share of Central grants to constitute at least 25 % of total health spending</td>
<td>2010</td>
</tr>
<tr>
<td>Increase state sector health spending from 5.5 % to 7 % of the budget</td>
<td>2005</td>
</tr>
<tr>
<td>Further increase state sector health spending to 8 % of the budget</td>
<td>2010</td>
</tr>
</tbody>
</table>

Source: National Health Policy 2002, Government of India, Delhi

Having set a base by discussing the hospitals, industry of health care, the types and regulatory & accreditation needs, the second part of this chapter leads to the discussion on service quality and there by establishing a link between the health care and service quality.
SERVICE QUALITY - AN INTRODUCTION

The goal of the following discussion is to provide a review of the principal literature relating to this study, which is service quality. In addition, it will evaluate the existing literature and establish the identity of the gaps in the literature, which will provide the framework on which this research is based. As part of introducing the study the literature on services marketing will be examined from a purely historical perspective to determine its impact on the field of service quality. Then, a brief review of the relationship between customer satisfaction and service quality precedes the literature review defining service quality, and measuring service quality.

The literature review points to SERVQUAL developed by Parasuraman, et al (1988) as the optimum measuring device that can be modified to accomplish predicting customer perceptions against expectations and the casting of those perceptions and expectations against the service provider perceptions of what it will require to satisfy the customers’ service needs. Based upon SERVQUAL as a measurement device, the chapter looks at the dimensions in measuring service quality, the SERVQUAL model, the use of the SERVQUAL model to evaluate service quality, and the validity of SERVQUAL in the measurement of service quality.

The study of the literature will then focus on the importance of service quality measurement in hospitals, service as an element of hospital selection, service quality impact on hospital profitability, and the validity of SERVQUAL in hospital applications.

There is limited literature in predicting hospital patient perceptions against expectations and the casting of those perceptions and expectations against the hospital service provider perceptions of what it will require to satisfy the patient s’ service needs. The available literature addresses service quality but limited to
deal with the aforementioned perceptions and expectations. This study will utilize a survey instrument in primary research based upon a modified SERVQUAL instrument to obtain results that will be utilized in filling gaps in knowledge about service quality. The discussion concludes by focusing on the conceptual framework of the study and a summary of the research issues.

Service Marketing

Service marketing was the precursor leading to the study of service quality. It was beginning to be recognized as an industry function in the early to mid 1970s. Empirical research was limited in the early days as marketing struggled with the differences between this new service sector and the conventional marketing methods for the marketing of produced goods. Pioneer research in this area\textsuperscript{33} (George and Barksdale, 1974) identified several distinct differences between the marketing of “service” firms and “manufacturing” firms. Their research found an unusual concept in the service firms in that the marketing effort was not confined to a formal marketing department, but was shared across organizational lines. The manufacturing firm by contrast operated with a more clearly delineated marketing department.

It was Shostack’s (1977) research that brought to the fore the distinct nature of services marketing\textsuperscript{34}. She noted that services were intangible, rendered, experienced, and unable to be stored. Consequently, her conclusion was that services should be marketed differently from tangible products. It was her early work that gave equal weight to the components of “service” as it did to “product.” Her research concluded that service marketing strategies should deal with specific issues related to distinct elements within each product. She also concluded that changes in any single element could impact other elements within the function, and as such, services marketing should consider products more holistically, meaning to look at each item on its merits alone.
Uhl and Upah’s (1983) research built on Shostack’s (1977) work, but set forth the concept that services’ marketing was significantly different from product marketing. They found that services are intangible, incapable of being stored, incapable of being transported, and are for use and not ownership. For example, they noted that a hospital doctor’s services could not be stored, and if those services went unused, they would be lost.

Lovelock (1983) took the intangible service marketing function and broke it down to the specific service function, and then established service classifications that emphasized the fact that service oriented organizations could be quite different from each other. He created five four-way classification schemes that considered three service aspects: (1) the nature of the service act involving people or things whether tangible or intangible actions; (2) the nature of service delivery which comprised formal relationships or non-formal relationships with customers; and (3) the nature of customization involving high or low service provider judgments regarding customer needs or customization requirements.

The limited research that followed (Reukert, et al, 1985; Walker and Reukert, 1987) viewed marketing management as a function or a task, and did not embrace the services marketing approach across the organization. However, subsequent research (Parasuraman and Deshpande, 1984; Deshpande and Webster, 1989) provided evidence that suggested organizational culture has a significant influence on organizational behavior.

Enis and Roering (1984) were unconvinced that there is a distinction between service marketing and manufacturing marketing. It was their conclusion that the strategies used for all product is strictly a “bundle of benefits” regardless of whether they are tangible or intangible.

The principal study by Zeithaml, et al (1985) fostered a direct relationship between customer satisfaction and service quality and broadened
the unique characteristics of service products. They explained that service in its production sense and consumption occurs simultaneously. Production and consumption of service products cannot exist in isolation, requiring them to be simultaneously produced and consumed. Additionally, they suggest that service production and consumption is by its own nature heterogeneous. Their research was significant in that it highlighted the differences between manufactured products and service products, and it introduced the interrelationships between customer service and customer satisfaction through the measurement of gaps.

**Relationship between Customer Satisfaction and Service Quality**

In this study, it is important to establish the relationship between customer satisfaction and service quality. This section will establish the existing relationship. Only within the last few years has there been much research conducted in the area of determining whether customer satisfaction influences behavioral tendencies more than service quality does or the opposite prevails. Perhaps, the issue revolves around the ongoing debate as to whether satisfaction precedes service quality or in the alternative, does service quality precede satisfaction?

Customers have a difficult time in attempting to determine service quality based upon objectivity and as a result need some structured effort on the part of the service provider to plan the service function (Shostack, 1985). Boulding, et al (1993) noted that service quality and customer satisfaction were treated as one and the same by the business press. They indicated that this should be a dynamic process model to examine the subject from expectations to behavioral intentions.

The subject took another turn when there was a substantial amount of posturing in the literature as to whether both constructs (satisfaction / dissatisfaction and service quality) are truly attitudes. Bitner (1990) viewed
satisfaction / dissatisfaction as an episodic, transaction-specific measure, and this was subsequently the conclusion of Clow and Beisel (1995)\textsuperscript{44}. Still not convinced, Bitner and Hubbert (1994)\textsuperscript{45} subsequently raised the question whether or not service quality and customer satisfaction is distinguishable from the customer's perspective.

However studies by Cronin and Taylor (1992)\textsuperscript{46} and research conducted by Oliva, et al (1992)\textsuperscript{47} treated satisfaction / dissatisfaction as a cumulative effort than discrete measure. It became obvious that satisfaction/dissatisfaction had to be separated into two distinct types based on a given service encounter or a total service experience.

They described service quality as “similar in many ways to an attitude” developed over all encounters with the service providing firm\textsuperscript{48} (Parasuraman, et al, 1988). Cronin and Taylor (1992)\textsuperscript{49} found that there is a major problem when service quality is not termed an attitude. They saw a significant problem when the disconfirmation paradigm is used to measure perceptions in service quality, and it has also been used to distinguish customer satisfaction from service quality. This was identified as an inconsistent approach with the differentiation noted between these constructs in the satisfaction and attitude literature.

A set of definitions to clarify the different types of evaluation methods was proposed by Bitner and Hubbert (1994)\textsuperscript{50}. They noted and established conceptual links between satisfaction in single service encounter, satisfaction with the entire service experience, and service quality. It was determined using their concept that consistently good service would mitigate one single episode of poor service, and as a result would not significantly impact overall satisfaction. Conversely, negative information from some credible source may cause the customer to evaluate service quality less favorably, even though the past experiences have been very satisfying.
Bolton and Drew (1994)\textsuperscript{51} in their research found there is a difference between a single encounter and the total service experience and in that regard stated:

\begin{quote}
\textit{“In a dynamic framework, customer satisfaction with a specific service encounter depends on pre-existing or contemporaneous attitudes about service quality and customer post-usage attitudes depend on satisfaction.”}\textsuperscript{52} (Bolton and Drew. 1994: page 176)
\end{quote}

From their conclusions, it is implied that service quality is an input and customer satisfaction is an output. However, taking their statement and dissecting it one would have to conclude that Bolton and Drew (1994)\textsuperscript{53} view this dynamic framework from the context of service quality establishing the perceptions necessary for the customer to receive satisfaction from a specific service encounter as opposed to pure service causing the customer to obtain satisfaction.

While the issue is sometimes clouded, it is reasonable to conclude that there is a consensus among the various researchers that while service quality and customer satisfaction are two different constructs they can still have common indicators. Likewise, there is agreement in the research literature that both service quality and customer satisfaction have an influence on customer loyalty.

\textbf{Chronology of Service Quality Research}

Customers over the years have felt some level of comfort by an adequate amount of attention. However the study of service quality did not come into its own as an area of marketing importance until research in the early 1980s established that attitude was a significant part of service quality. Table 1.9 below gives a general chronology of service quality, providing a list of the researchers
and the research issues they raised from time period. The more important studies are detailed following the table.

The earliest concern for what has become to be known as service quality appeared in 1976. Marketing researchers did not share their need for substantial research of the quality issue until the early 1980s. The Table 1.9 describes the chronology of Service Quality Research as contributed by various eminent authorities in brief.

<table>
<thead>
<tr>
<th>Year</th>
<th>Researchers</th>
<th>Research Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>Churchill and Suprenant</td>
<td>Service satisfaction is similar to attitude</td>
</tr>
<tr>
<td>1982</td>
<td>Gronroos</td>
<td>Significance of processes and outcomes in defining service quality. Alluded to satisfaction as being similar to attitude</td>
</tr>
<tr>
<td>1983</td>
<td>Lewis and Booms</td>
<td>Also noted significance of processes and outcomes in defining service quality. Difference in service quality and attitude is seen as general, comprehensive appraisal of some specific product or service</td>
</tr>
<tr>
<td>1985</td>
<td>Holbrook and Corfman</td>
<td>Defined perceived quality as a global value Judgment</td>
</tr>
<tr>
<td>1985</td>
<td>Maynes</td>
<td>Viewed service quality as the extent to which a product offers the characteristics that individual desires</td>
</tr>
<tr>
<td>1985</td>
<td>Parasuraman, et al</td>
<td>Established ten service quality determinates known as SERVQUAL (tangibles, reliability, responsiveness, communication, credibility,</td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Summary</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1988</td>
<td>Parasuraman, et al</td>
<td>After substantial factor analysis and testing, reduced the 10 service quality determinates in SERVQUAL to 5 (tangibles, responsiveness, reliability, assurance, and empathy)</td>
</tr>
<tr>
<td>1988</td>
<td>Zeithaml, et al</td>
<td>Noted that firms not only have a difficult time delivering a consistent level of quality service, but had difficulty understanding what service quality really entails. Perceived service quality as an attitude. Found through focus groups that good service quality as meeting customer expectations</td>
</tr>
<tr>
<td>1989</td>
<td>Babakus and Mangold</td>
<td>Developed serious reservations about SERVQUAL’s scales: reliability and discriminant validity</td>
</tr>
<tr>
<td>1990</td>
<td>Bitner</td>
<td>Noted research yielded service quality as being similar to attitude</td>
</tr>
<tr>
<td>1992</td>
<td>Cronin and Taylor</td>
<td>Found that perceptions of service quality more closely approach customer evaluations of services provided.</td>
</tr>
<tr>
<td>1992</td>
<td>Howcroft</td>
<td>Noted customer preferences of service quality based upon comparison between expectations and actual service performance</td>
</tr>
<tr>
<td>1993</td>
<td>Teas</td>
<td>Found interpretation of SERVQUAL expectations was flawed</td>
</tr>
<tr>
<td>1993</td>
<td>Brown, et al</td>
<td>Questioned whether five key dimensions capture all possible determinants of service quality</td>
</tr>
<tr>
<td>1994</td>
<td>Parasuraman, et al</td>
<td>Disagreed with Brown, et al. Research supports disconfirmation as valid since it allows service</td>
</tr>
</tbody>
</table>
Churchill and Suprenant (1982)\textsuperscript{54} were among the earliest to hold the view later shared by others that service quality was an attitude. They were the first researchers to see the significance of attitude as a principal factor leading to
superior service quality. One year after this significant research, Lewis and Booms (1983)\textsuperscript{55} concluded that satisfaction was similar to attitude, and consequently they noted the significance of processes and outcomes in defining service quality. In addition, they did not directly state, rather they alluded to satisfaction as being similar to attitude. The difference between service quality and attitude is that service quality is seen as a general, comprehensive appraisal of some product or service. By contrast it was noted by Gronroos (1982b)\textsuperscript{56} that service marketing had followed two distinctly different paths. In his view based on empirically reliable research, service when taken alone is indeed physically intangible. It does not matter if it is a hospital service or a restaurant service; service occurs when someone does something for the customer in either case. He noted:

“\textit{This holds even for situations where there are no human representatives of the firm involved; then the firm uses physical or technical resources and the co-operation of the customer instead, in order to be able to do something for its customers. This activity for example, a hospital service, a restaurant service, or an airline trip is produced, at least partly, often to a great extent, in the presence of the consumer, with his co-operation, and moreover, while he simultaneously consumes the service.”}\textsuperscript{67} (Gronroos .1982b: page 31)

Gronroos (1982b)\textsuperscript{58} concluded that the act of something being done for the customer was the significant element in satisfying the customer, and this act did not have to involve a person performing the act rather it was simply a matter of the “firm” relying upon physical or technical resources doing something for the customer with the customer cooperating by consuming the “service”. As noted from his research, customer awareness of something being done in their behalf played a significant role in the degree of satisfaction. Holbrook and Corfman (1985)\textsuperscript{59} expanded on the concept of an act being performed and defined
perceived quality as a global value judgment. They indicated that quality does by its nature seem to express general approval.

Therefore, it is indicated that “quality” or “high in quality” means that something is “good.” They stated that the use of the terms promotionally is extremely imprecise. To define quality, they saw quality as fitting into three dimensions as stated below:

“The first dimension distinguishes between definitions that regard quality as something present implicitly in an object as opposed to some explicit aspect or function thereof. A second dimension contrasts more mechanicalistic definitions of quality with those more humanistic in nature. A third dimension distinguishes conceptual definitions of quality from those relatively more operational in nature.” (Holbrook and Corfman. 1985: pages 32-33)

With the three dimensions, they tried to make the element of quality much more precise by definition. This approach of definitions was in conflict with their idea of perceived quality as a global value judgment. Their approach virtually ignored the customer and moved away from the early research that put service quality in the marketing mainstream. Maynes (1985) took a different approach from Holbrook and Corfman (1985) who took the customer out of the service equation. He brought service quality back to the earliest held views that service quality was the extent to which a product offers the characteristics that the individual desires. He differed from the earlier views in that he saw quality as a normative concept that could equip the consumer function effectively in the marketplace. Additionally, he felt that quality could best be measured and defined using quality as a weighted average of characteristics. He defended his measurement and definition through the following statement:
“Finally, it is worth noting that the quality scoring systems utilized by Consumers Union and all its counterparts conform in essence, though not to form, to the model proposed here.”\(^{63}\) (Maynes. 1985: page 197)

This added element of mathematical measurement of quality by Maynes (1985)\(^{64}\) was the earliest attempt to quantify service quality by placing a number on the level of satisfaction. While this was a significant attempt to use weighted averages to arrive at a customer’s level of satisfaction, it did not answer what the characteristics should be. It would appear that the research raised as many questions as it answered.

Maynes’ attempt to quantify service quality was the beginning of the development of some of the most significant measurement techniques. Parasuraman, et al (1985, 1988)\(^{65}\) sought to improve the previously developed methods by developing a set of firm characteristics that could be measured by providing the first complete set of ten service quality determinants: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing the customer, and access. After substantial factor analysis and testing, Parasuraman, et al (1988)\(^{66}\) reduced the categories to the following five: tangibles, responsiveness, reliability, assurance, and empathy.

Zeithaml, et al (1988)\(^{67}\) noted that firms not only have a difficult time delivering a consistent level of quality service even though it improves the profit level for firms providing services, but also understanding specifically what service quality really entails. Bitner (1990)\(^{68}\) held the same view as Zeithaml (1988)\(^{69}\) who perceived service quality was similar to attitude. Zeithaml, et al (1988)\(^{70}\) in their book dealing with service quality noted that customer focus groups universally found good service quality as meeting the expectations of the customer. As is noted in the literature, there is no one definition of service quality
that can be accepted by marketing scholars, however, there is one, which presents the least amount of controversy:

“Service quality as perceived by the customer is the degree and direction of discrepancy between customer service perceptions and expectations.”71 (Parasuraman, et al. 1985: page 41)

This definition provided for the first time recognition that perception by the customer was as much a factor in service quality as the actual service delivered. For example, the service delivered was the best that could be offered, but the perception by the customer was a lack of satisfaction. Hence, the service quality did not meet expectations.

The common element that can be derived from the numerous researchers is that various methodologies exist which allows service quality to be measured. Additionally, it can be measured from several perspectives, which will be fully detailed by discussion of a number of important studies in the following section. The greatest area for dispute is what constitutes the best and most accurate method for measurement of service quality.

A basic understanding of service quality, role of dimensions in SERVQUAL gives scope to join both of the topics of Hospitals and Service Quality. The below is the discussion on service quality in hospitals.

**SERVICE QUALITY IN HOSPITALS**

The entire gambit of business performance in the last decade has faced a paradigm shift, with quality consistently being considered as one of management’s top-most competitive priorities and a prerequisite for sustenance
and growth. Quality is proposed as the most potent tool for enhanced business performance. In today’s world of fierce competition, rendering quality service is a key for subsistence and success in any organization, more so in a service organization like health care sector. The cardinal accent of both academia and business focused essentially on ascertaining the customers’ perceptions of service quality and subsequently contriving strategies to meet and surmount customer expectancies. But most of these efforts have drawn more criticisms than acceptance by a large section of seasoned researchers. In this background, the current research work aspires to develop an empirical model of service quality, tested in hospitals sector that could form the basis for a better understanding of the determinants of customer perceived service quality. Therefore, the basic objective of this paper is to develop and purify the scale for measuring service quality suiting the Indian hospitals sector.

**Hospital – A Service Organization**

The overall process which involves hospital business is service. There is nothing which is tangible, which can be physically touched or verified and which is not perishable also. All the characteristics of the concept of service are very well fit in with hospital business too. Organizations engaged in hospital business provide a wide variety of services like providing beds, complete nursing to the patients or providing equipment for diagnosing all sorts of ailments, arranging transportation in the form of ambulances, catering services, etc. to the individuals. Example of providing services to government can be traced back to the services given to the government officials and the persons who hold high positions in the government. Hospitals provide services to the businessmen also which is self explanatory. They provide health services by creating good atmosphere and so on.

The business of hospitals also qualifies the definitions of services given by Sir Beverdge\textsuperscript{72}. According to him, services refer to social efforts including
government to fight five giant evils. Want, Disease, Ignorance, Squalor and Illness in the society. Here too, one finds that hospital services also fight against these evils if one calls them evils.

The main objective of hospital is providing services against specific ailments. Ignorance is also removed from the services provide by hospital. One comes to know more and more when he or she goes out of his or her own world. The government hospitals and hospitals established by the act provide services to the people who are neglected in the society or who are below the poverty line. The fifth evil is illness which is the primary purpose of a hospital to cure. In this way one can observe that hospitals are well qualified under this definition. The definition provided by Prof. A.V.S. Rao in Dr. T. Sreenivas\textsuperscript{73}, “Services can also be defined as a human effort which provides succor to the needy. It may be food to a hungry person, water to a thirsty person, medical services to an ailing one and education to a student, loan to a farmer, transport to a consumer, communication aid to two persons who want to share a thought, pleasure or pain” is also relevant to the hospital organization.

The gist of this definition is that the services are provided free of charge or commercially. This aspect is self explanatory. There are ample evidences that government hospitals are providing services free of charge and corporate hospitals providing services usually against price. Whatever be the mode, patients are getting immediate care through one of the ways.

In view of the definition given by Yakeshel Hasenfield et al\textsuperscript{74}, as action(s) of organization(s) that maintain and improve the well being and functioning of people, we notice that efforts of hospitals are directed towards maintaining and improving the well being of the persons who come to the hospital for any reason whatsoever. These organizations improve the well being or the patients in many ways. For example, prosperity of the country is directly proportionate to the health of the persons living in the society. Hospitals are playing a vital role in
maintaining the well being of the people. There are many advantages of the similar nature which will be discussed appropriately in the coming chapters.

Unlike the traditional manufacturing system works on input being processed to get the output demanding the facilities, materials everything to be treated mechanistically, hospitals have to treat patients not like machines but as human required to attend their problems most of them are can not be treated / serviced in the same way. In all one can say that the hospital services are linked with other supplementary services.

**Significance of Service Quality in Hospitals**

For a hospital customers are patients. For any customer for that sake even for patients service quality is the function of perceptions, expectations and performance. Early writing on the topic of service quality, defines service quality as a comparison of what patients feel a hospital as a service provider should offer (i.e. their expectations) with how the hospital as provider actually performs and “service quality is a measure of how well the service level delivered matches patients expectations. Delivering quality service means conforming to patients expectations on a consistent basis”.

Service Quality as perceived by patients is defined as the degree and directions of discrepancy between patients’ service perceptions and expectations. It is also defined as difference between “technical quality” (what is delivered in the form of treatment) and “functional quality” (how it is delivered), and as “process quality” (judged during the treatment of process) and “output quality” (judged after the treatment).

Importance of service Quality, direct relationship between service quality and profitability, helps in defensive and offensive marketing i.e. patient repeat dependability and increase of assurance on the specific hospital is done, striking
a balance between patients perception and expectations, increasing visits on to the specific hospital, free advertising through word of mouth. Too much newness can do more harm than good. Some of the problems are communication gap, service proliferation and complexity, improper selection and training of service staff like doctors, paramedical staff, nurses etc, short run view of the business. If a hospital gives a quality treatment service, they can survive and run over any kind of crunch situation.

The concept of liberalization and globalization opened the market to intense competition throughout the world. So, today the patients are not ready to opt for the service based on only its physical characteristics, brand name, or charges alone. The use of services offered by hospital is made mostly on patients' perception of quality attached to a service. This is truer in a competitive sector like hospitals in current scenario. So more and more hospitals in the world need to start the service quality initiations to retain the existing patients' expectations and also to ensure that more and more new patients start believing in their services.

Problems / Challenges currently faced by Indian Hospitals

1. Crisis faced in Indian Health Care Sector – Necessity of Service Quality

   Majority of the hospitals particularly the government hospitals are severely under pressure due to the crisis being faced in delivery of qualitative services. This is found to be very significant factor among the all challenges faced by these hospitals. Even corporate hospitals, at times, are not exempted from these short falls. The more increase in awareness of patients, the more the crisis being faced in the hospitals. The demands are increasing day by day, as well the hopes. The inability of providing the anticipated services to patients leading hospitals to be on toes to search for a way wherein they can come out of this; proceed towards shore.
India, in the past one decade is fast becoming a global hub of medical tourism with wide range of health care centers catering to a spectrum of medical fields, namely, allopathy, homeopathy, ayurvedic, yoga centric and so on for providing medical solutions to physical and mental related problems. The recent boom in the organized sector of medical hospitals, comprising small, medium, large hospitals and hospital chains, not to be left behind, the medical transcription fields as well, signifies the dawn of new era of successful phase in Indian health care services sector.

The phenomenal growth in fitness centers across the country coupled with the surge in traditional pharma industries at global level suggest that India has been viewed as a reliable hub for medical solutions at competitive costs and more admirably with appreciable customer care. Touching upon this critical aspect of ‘customer care’ which determines the satisfaction level of customers of any service organization, more specifically, the hospital services, the Indian hospitals sector has woke up to this reality and working more on service quality aspects, viz. reliability and responsiveness which score over everything else in clinching clientele for hospital services. The current buzz word in this industry is ‘customer centric’ operations.

Many incidents are reported daily in media exhibiting the inability of hospitals in passing on the required level of service to patients. Failure to attend the specific needs of patients making these hospitals to have retrospection as what exactly they are doing and explore the ways to modify them in order to gain the confidence of patients again.

Service Quality is going to be one of the best solutions for these problems. The researcher here attempted to study this in elaboration. Some hospitals though practicing few service quality aspects, a gap is
potentially existent. Measuring that gap in service quality is the point of the need.

2. Competent and appropriately qualified staff availability

As the hospitals are growing, as the needs of patients growing, the requirement for competent and qualified staff is also growing. Most of the hospitals are finding this problem. The reasons may be multiple. The country may not be producing enough number of required staff or the number of patients needed the services may be growing or even it may be possible that the number of hospitals offering the services may be growing. Yet another typical complexity may be the existing staff may not be equipped with the dynamic requirements of patient community.

Recently, a patient met with accident brought to the Gandhi Hospital and badly in need of medical help. Due to either unavailability of necessary equipment, he was directed to some other hospital.

3. Coercion from the staff to attend the ‘appropriate’ facility

It could be the experience of some of the patients that during their visit to a hospital it could have been happened that some of the staff members varying from the capacity of highest ranked doctor to the lower category member of a hospital, a compounder might have not willing to attend the required support to them. It may be very less in degree in the staff holding highest capacities but it can not be told that the coercion is absent.

4. Level of fees to be born by the patients in various forms including diagnostics, consultation, attendants, bed, nursing and other services

These problems are not only evident in corporate hospitals but also are quite visible and experienced in the government hospitals. Some
patients did expressed that though the government hospitals do not charge for consultation, bed and nursing charges, they are needed to spend money to external facility centers for services like diagnostics etc, due to the unavailability of the important services in the hospitals. Coming to the corporate and some private hospitals most of the patients are experiencing the pinch of fees and charges.

5. **Cost of transport including ambulance services**

Except few trust based hospitals, it is the experience of relatives of patients while shifting the patients to hospitals. The ambulance service providers do charge them just adhoc and bargain based on the need and urgency of people. Though this is part of hospital services and must have been fix priced, majority of times, it goes unorganized. In other situation, there are few corporate and medical college combined hospitals in India which need special transportation services. Some times this costs the patients more than the normal and some other times, it is tough for them to find the travel mode.

6. **Availability of diagnostic and therapeutic facilities**

In some of the hospitals, the patients have to either go out to distant places or opt out of the hospital due to the absence of some of the critical facilities like diagnostics and therapeutics. This could some times become very problematic to the patients because of scarcity of time and urgency of the services for further treatment.

7. **24 hours availability of specialty services**

This may not be a chance for big branded corporate hospitals. But there can be few secondary care hospitals and nursing homes without the availability of 24 hours specialty services causing very inconvenience for the patients who could have come to these hospitals with lots of expectations and urgency. Though this may not be a mistake of these
8. Large scale of the hospital being a threshold for some patients

There are instances for few patients who visited the multi specialty corporate hospitals for a seemingly uncomplicated health problem. Most of these hospitals follow a method of facilities called “group technology” which allows concentrating their resources of one kind at one place. A patient will be made to move between these clusters in the process of consultation, treatment, diagnostics, etc, as many times as the patient becomes inpatient of moving so. In some of the government hospitals this problem can be due the size of the hospital geographically.

Miscellaneous Problems

The below are some of the other problems which are equally worrying the administrators and researchers.

1. Community Involvement
2. Availability of drugs
3. Waiting time
4. Duration of consultation
5. Qualification of staff
6. Experience of staff
7. Efficient design of the building (ensures privacy, user friendly and efficient patient’s flow)
8. Patient satisfaction
PLAN OF THE STUDY

This work is arranged in six chapters, viz., the first chapter is an introductory part in nature and deals with different sectors of a progressive economy in general, projects a basic understanding of hospitals, various types of hospitals, the general functions of a healthcare service provider, the focus of management on various issues in hospitals. In continuation to that, the thought of service quality, a thorough understanding of its dimensions, and the generic way of measuring the service quality were discussed. At the end, this chapter attempts to share the effect of service quality on hospitals and deals with various problems being faced by the healthcare service providers i.e., the hospitals.

The second chapter contains the discussion on need for the study, objectives, hypothesis, methodology used, selection of sample hospitals, and selection of sample respondents, various concepts used in this study, limitations of the study and survey of literature.

The third chapter deals with the theoretical part of service quality in selected hospitals. The level of implementation of quality and the related information in the selected five hospitals was discussed here in detail. Marketing mix in the five selected hospitals is being discussed on a comparative note.

The fourth chapter takes on the one of the important topics of the study. This chapter discusses the inputs received from the five categories of staff viz., administrative staff, doctors, nurses, paramedical staff and supporting staff. After studying the staff perceptions, the five dimensions as perceived by staff were analyzed using statistical software.

The fifth chapter undertakes processing the information as received from the in-patients of these five selected hospitals and analyzed thoroughly using the SPSS software. Analyzing the patients’ demographics followed by analysis of the
five dimensions as perceived by patients. Further, the distribution of patients’ demographics also was discussed at the end. The critical part of this thesis is taken up here. A detailed service quality gap analysis considering the difference between the expectations and perceptions (P-E gap) of patients is presented. The statistical tools were appropriately used for this purpose.

The final and sixth chapter deals with the summary, findings, suggestions both general and specific to the hospitals were provided based on the results of the study. This chapter also concludes and critically presents the remarks.
References

1. Directory of hospitals in India, 1988
2. World Health Organization (http://www.who.int/whr/en/)
4. World Health Organization (http://www.who.int/whr/en/)
13. Prakasamma, 1993 in S. Chakraborty, Ph.D. Dissertation

17. World Health Organization (http://www.who.int/whr/en/)


25. Field Briefings 1992 and Foreit 1998


27. Bombay Nursing Home Registration Act, 2005


29. Ministry of Health and Family welfare, through: http://mohfw.nic.in/ [accessed on 05-08-2007]


32. National Health Policy, 2002, Government of India


Multiple-item Scale for Measuring Consumer Perceptions of Service Quality,” Journal of Retailing, 64/1 (Spring), 12-40.


