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HEALTHCARE SERVICES IN INDIA: A STRATEGIC PERSPECTIVE

DR. PRESHTH BHARDWAJ
ASST. PROFESSOR
INSTITUTE OF MANAGEMENT TECHNOLOGY
NAGPUR - 440 013

DR. JAYRAJ D. JADEJA
PROFESSOR
M. S. UNIVERSITY OF BARODA
VADODARA

ABSTRACT

Healthcare is one of the most indispensable sectors of a person's life. Nowadays people have grown more health conscious and healthcare for them not only means diagnostic checkups but they also go for wellness and preventive checkups. People these days are more aware of the various types of healthcare products that are available in the market and endeavour to know their proper uses. Healthcare equipments like blood pressure checking machines, heating pads, diabetes checking equipment are common things in almost every health conscious household. As a result the healthcare scenario in India has shown signs of tremendous growth in the past decade. According to the FICCI-Ernst & Young study (January 2007), the Indian healthcare industry is well poised to grow at a CAGR of 15 per cent, with the private sector being responsible for almost 90 per cent of the growth. The last decade has seen the healthcare sector transition from a static and seemingly inconspicuous industry to an increasingly dynamic and significant industry today. This paper is an attempt to study the future trends that might prevail in the Indian healthcare services market and its strategic implications to various stakeholders.

KEYWORDS

Healthcare infrastructure, healthcare models, healthcare service differentiator.

HEALTHCARE SERVICES IN INDIA: AN OVERVIEW

Today, global healthcare industry is stood at US \$ 3.5 trillion¹. The Indian healthcare spending is considerably lower than that in other countries. Access to health care service providers, availability of physicians and financing for health care are the major concerns need to be addressed² (Table 1). 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 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)³.

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 in 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.

There are perceptions that government spending on health in India, which is low by international standards, has been further undermined during the period of economic liberalisation since the early 1990s⁴. Health expenditure in India is dominated by private spending. To a large extent this is a reflection of the inadequate public spending that has been a constant if unfortunate feature of Indian development in the past half century.

The two main characteristics of healthcare which lead to market failure and thus necessitate state intervention are the presence of externalities and information asymmetries. An externality results when an action of an agent has an effect not only upon the agent but also upon others. If a good or service not only benefits those who purchase these but others as well, then there is said to be a positive externality in its consumption. These positive externalities make government intervention essential. Such intervention can take the form of price subsidies to encourage or spread the consumption of healthcare services, or direct public provision of such services.

Asymmetric information reflects any situation in which one party to any contract or exchange has access to some information that is not known to the other party. Such information asymmetries, primarily between the service provider and patient, pervade the health sector and cause market failure in both healthcare and healthcare insurance markets.

Health expenditure is highly unequal across the globe. As is to be expected, developed countries spend the most on health per person. OECD countries accounted for less than 20 per cent of the world's population in the 2000 but were responsible for almost 90 per cent of the world's health spending. Therefore 80 per cent of world's population spent only 10 per cent of the total expenditure on health. This includes people in the Asia-Pacific as well as African and Latin American countries. Africa accounts for about 25 percent of the global burden of disease but only about 2 per cent of global health spending. (World Health Report, 2003).

Similarly, health expenditure, both in terms of percentage of GDP spent on health and per capita health expenditure, is much higher in the developed countries (Table 2). There is a very wide variation of per capita health expenditure across countries, which is typically extremely low in developing countries compared with most of the developed countries. In most of the developed countries, public health spending has relatively higher ratio than the private spending. By contrast, in middle developed and low developed countries, either private expenditure dominates or there is very little difference between the shares of private and public expenditure, although in general both tend to be low. All the private expenditure in India (as in some other countries) is constituted by out-of-pocket expenses. This is inherently regressive and puts a disproportionate burden for healthcare on poor households.

According to the Report of the National Commission on Macroeconomics and Health, 2005, households undertook nearly three-fourths of all the health spending in the country. Public spending was only 22 per cent, and all other sources accounted for less than 5 per cent.

Widespread poverty, restrictive government policies and a lack of investment have prevented a strong domestic healthcare market from taking shape in India. Increases in personal income and government healthcare outlays, combined with longer life expectancy, should lead to average annual growth in healthcare spending of around 13 percent in rupee terms in 2007-11⁴. National healthcare spending in 2006 is estimated about US \$43.5 billion which is 5 percent of GDP. This spending is expected to rise to about 5.2 percent of GDP or US \$75.5 billion by 2011 (The Economist Intelligence Unit). Real private consumption is forecast to increase by 6.3 percent annually in 2007-11, which might lead to year-to-year percent increase in pharmaceuticals sales (Table 3).

HEALTHCARE INFRASTRUCTURE IN INDIA

Primary health system in India is primarily driven by the medical practitioners, Health assistants and workers. Due to the inadequate manpower the primary

health system need qualified and skilled medical practitioners apart from skilled and efficient health workers (Table 4).

Indian Primary healthcare infrastructure is not sufficient enough to cope with the requirements of the domestic market and the growth of Healthcare sector (Table 5). The facilities provided under the Indian system of medicines in India are also inadequate to sufficiently cover the demand for better healthcare system (Table 6).

The household and public expenditure in India is witnessing a wide disparity across states. The states that are lagging behind, in providing the adequate funds and infrastructure, need to stress upon policies to fuel the growth and minimize the gaps in the total healthcare system in India (Table 7).

STRUCTURE OF HEALTHCARE FINANCING IN INDIA

Public spending in health care is very low at 17 percent and the National Health Policy has stressed upon this issue. More than 86 percent of healthcare financing is through unplanned (out-of-pocket) spending (Figure 1).

The majority of healthcare services in India are provided by the private sector. Private sector comprises of around 80 percent of healthcare expenditure, with various levels of government covering the remaining 20 percent. In the government sector, the states provide the bulk of healthcare services. The scope for higher public spending on healthcare will be limited, as long as India's combined central and state government deficit remains at around 7 percent of GDP.

The healthcare spending will be sustained by two demographic trends: increase life expectancy and an ageing population. Life expectancy which averaged 66.5 years in 2002-06, is expected to increase to an average of 70 years in 2007-11. The proportion of the population aged 65 years and over is also rising and will increase from 4.9 percent in 2006 to 5.4 percent in 2011. These levels are far lower than most of the developed countries.

Medical tourism characterized by patients traveling to India for medical treatment, will continue to grow. India has established as a leading destination for medical tourism and expected to grow by 30 percent a year over the next 5 years and will be a market of around US \$2 billion by 2012. Many private hospitals in India, today, have the medical technology to match the standards of US and UK hospitals. India will continue to offer high levels of personal medical care and significantly cheaper costs than hospitals in the US and Western Europe.

LIMITATIONS OF INDIAN HEALTHCARE SYSTEM

The Indian Healthcare services are struggling from certain limitations that are the major concerns for future growth of the market. These are poor literacy rate, low socio-economic status, inadequate number of qualified doctors, lack of control of government agencies, poor medical facilities, political interference, excessive privatization and lack of facilities to tackle potential epidemic diseases³. The situation of the Indian healthcare system is grim and urgently needs to be revamped. In such a scenario, conventional techniques of providing healthcare services would not be sufficient.

MODEL FOR HEALTHCARE SERVICES IN INDIA

Many healthcare firms are using the Service Quality model as a conceptual framework for measuring service quality delivery in Health Care Services⁵. The service quality model indicates that consumer quality perceptions are influenced by a series of four distinct gaps occurring in organizations. These gaps on the service providers' side can impede delivery of services that consumers perceive to be of high quality (Figure 2).

HEALTHCARE STRUCTURE: FUTURE PERSPECTIVE

The Indian healthcare sector is at the precipice of a monumental change in direction, wherein the decisions made by the industry leaders and policy makers today, will shape the future of the industry. Every aspect of healthcare delivery is being challenged by forces that promise to usher in a new era and may give shape to a completely different model than what is believed to be an ideal model today. According the FICCI-Ernst & Young study (January 2007), the Indian healthcare industry is well poised to grow at a CAGR of 15 per cent, with the private sector being responsible for almost 90 per cent of the growth. The key growth drivers are strong domestic economy, increasing literacy rates and growing public health awareness, higher incidence of lifestyle-related diseases, shift in focus from socialized to private healthcare, easier financing for a capital-intensive industry, increasing penetration of health insurance, recognition by government of healthcare as a priority sector, growth of medical value travel and medical tourism. Private hospitals are expected to rake in \$35.9 billion (Rs 1,50,000 crore) in 2012 compared to \$15.5 billion (Rs 6,500 crore) in 2006⁷.

Indians are expected to spend far more on healthcare and share of healthcare spending will rise as fast as education and three times as much as the share of food, beverages and tobacco (Figure 4). Upcoming small cities and rural centers will contribute almost as much to the pharmaceutical growth as metros and top-tier towns (Figure 5). Rising incomes, healthcare insurance and better healthcare infrastructure will spur growth (Figure 6).

The share of private hospitals in the healthcare system will continue to grow compare to the government hospitals and will bring more professional approach towards the healthcare delivery (Figure 7). Many more Indian households will have health cover, and there will be more hospitals to spend it in (Figure 8)⁸.

FUTURE INDIAN HEALTHCARE FORMATS

Medical treatment has advanced exponentially over the last two decades. However, the packaging and delivery of treatment has not shown the same improvement and growth over the time frame. This has left the consumer struggling with scattered and inconvenient healthcare delivery systems. These systems lack transparency and are difficult to access. Overall, the existing systems are providing sub optimal levels of experience and returns for consumers, payers and suppliers. While hospitals will continue to be the mainstay of treatment for episodic acute care we see a fundamental shift in the nature, mode and means of delivery of care. Preventive and chronic care are best treated in an ambulatory environment close to the place where the patient resides. This transformation is already evident and shall continue to grow. Recent studies had proposed the future healthcare formats mentioning the format type, their functionality, target customers, and service differentiators (Table 8).

CONCLUSION

It is evident that the last decade has seen the healthcare sector transition from a static and seemingly inconspicuous industry to an increasingly dynamic and significant industry today. A decade ago in India, health (and the healthcare sector), was not usually considered as a key driver of national economic performance. However, over the years, there has been a fundamental change to this paradigm, with incontrovertible evidence from the world over firmly establishing that improved health leads to better economic performance.

The delivery capability of India's healthcare industry has not been able to match up with the burgeoning population and socio-economic changes. This is expected to undergo a sea change with the availability of affordable, convenient and quality healthcare delivery system. The entry of Health Insurance companies in the Indian healthcare market in 2007 promises a plethora of innovative services. It is expected that around 15,000 healthcare providers including hospitals, blood banks, diagnostic centers and ayurvedic hospitals will be accredited under the National Accreditation Board for Hospital and Healthcare Providers (NABH) for standardization in healthcare delivery in India.

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TABLES

TABLE 1: HEALTHCARE INDICATORS OF MAJOR WORLD MARKETS

Year (2004)	US	UK	Mexico	Brazil	China	India
Life expectancy (average no. of years)	77.4	78.3	72.6	71.4	72.5	64.0
No. of Physicians (per 1,000 people)	2.7	1.9	1.7	1.2	1.7	0.4
Healthcare spend (USD per capita)	5,365	3,036	336	236	62	32
Healthcare spend (% of GDP)	13.2	8.4	5.5	7.5	5.0	5.3

Source: Economist Intelligence Unit. KPMG. 2004.

TABLE 2: GLOBAL HEALTHCARE INDICATORS

HDI rank	Country	Health expenditure as % of GDP (2001)		Per capita expenditure on health (PPP in \$)	Out-of-pocket expenditure as % of private expenditure (2001)	Life expectancy at birth (2001)	Infant mortality rate per 1000 live births (2001)	Per capita GDP (\$) (2001)
		Public	Private					
1	Norway	6.9	1.2	2920	96.8	78.7	4	36974
7	The US	6.2	7.7	4887	26.5	76.9	7	34946
9	Japan	6.2	1.8	2131	74.9	81.3	3	32540
13	The UK	6.2	1.4	1989	55.3	77.9	6	24186
52	Cuba	6.2	1	229	76.8	76.5	7	2234
58	Malaysia	2.1	1.8	345	92.8	72.8	8	3748
65	Brazil	3.2	4.4	573	64.1	67.8	31	2888
89	Azerbaijan	1.1	0.5	48	97.7	71.8	77	679
99	Sri Lanka	1.8	1.9	122	95	72.3	17	849
104	China	2	3.4	224	95.4	70.6	31	918
127	India	0.9	4.2	80	100	63.3	67	462
144	Pakistan	1	3	85	100	60.4	84	401
169	Ethiopia	1.4	2.1	14	84.7	45.7	116	93

Source: The Economist Intelligence Unit, 2007.

TABLE 3: HEALTHCARE INDICATORS IN INDIA: FORECAST

Healthcare and pharmaceuticals forecasts						
	2006	2007	2008	2009	2010	2011
Life expectancy, average (years)	67.9	68.6	69.3	69.9	70.5	71.1
Life expectancy, male (years)	65.7	66.3	66.9	67.5	68.0	68.6
Life expectancy, female (years)	70.4	71.2	71.9	72.6	73.3	74.0
Infant mortality rate (per 1,000 live births)	37.1	34.6	32.3	30.2	28.1	26.3
Healthcare spending (Rs bn)	1,969	2,235	2,521	2,910	3,294	3,663
Healthcare spending (% of GDP)	5.0	5.1	5.1	5.2	5.2	5.2
Healthcare spending (US\$ bn)	43.5	48.1	53.6	61.3	68.6	75.5
Healthcare spending (US\$ per head)	40	43	48	54	59	65
Physicians (per 1,000 population)	0.6	0.6	0.6	0.6	0.6	0.6
Pharmaceutical sales (US\$ m)	6,205	6,911	7,768	8,769	9,937	11,142

Sources: US Census Bureau; Economist Intelligence Unit.

TABLE 4: SHORTAGES IN MANPOWER IN PRIMARY HEALTH SYSTEM IN INDIA (2004)

Particular	2004
Multipurpose Worker (Female)/ANM	11191
Health Worker (Male) Multipurpose Worker (Male)	67261
Health Assistant (Female)/LHV	3198
Health Assistant (Male)	5137
Doctor at PHC's	880
Surgeons	1121
Obstetricians and Gynecologists	1074
Physicians	1457
Pediatricians	1607
Total Specialists	5335
Radiographers	1017
Pharmacists	1869
Laboratory Technicians	6344
Nurse/Midwives	12722

Source: Planning Commission, Govt. of India¹¹

TABLE 5: INFRASTRUCTURE FOR PRIMARY HEALTHCARE IN INDIA

Year	Health Sub-Centres*	Primary Health Centres**	Community Health Centres***	Dispensaries (Indian Systems of Medicine)
1967	17521	4793	214	14803 (1980)
1992	131369	20407	2188	23611
2001	137311	22842	3043	23442
April 2005	142655	23109	3222	22735 (Reduction in nos. of homeopathy dispensaries)

Note : *For every 5000 population in plains and for every 3000 population in hills. ** For every 30000 Population in Plains and for 20000 population in the hills.
*** For every 120000 population.

Source: Planning Commission, Govt. of India.

TABLE 6: FACILITIES UNDER INDIAN SYSTEM OF MEDICINE IN INDIA (AS ON APRIL 2002)

(Numbers)					
Facilities	Ayurveda	Unani	Sidha	Yoga	Naturopathy
Hospitals	2957	312	238	8	23
Beds	43555	5023	1991	150	832
Dispensaries	14755	961	354	65	56
Registered Practitioners	430263	43330	17392	-	482
(i) Under Graduate Colleges	209	36	6	-	6
(ii) Admission Capacity	9250	1505	320	-	170
(i) Post-Graduate Colleges	58	8	2	-	-
(ii) Admission Capacity	866	76	90	-	-
Licensed Pharmacies	7778	450	437	-	-

Source : Selected Socio-Economic Statistics, 2002, Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Govt. of India¹².

TABLE 7: HOUSEHOLD, PUBLIC AND TOTAL HEALTH EXPENDITURE IN INDIA (2004-05)

Household, public and total health expenditure in India (2004-05)

States	Household Exp. (Rs. Crores)	Govt. Exp. (Rs. Crores)	Other Exp. (Rs. Crores)	Aggregate Exp. (Rs. Crores)	PC NH Exp. (Rs.)	PC G. Exp. (Rs.)	PC Other Exp. (Rs.)	PC Exp. (Rs.)	NH as % of THE (%)	PE as % of THE (%)	OE as % of THE (%)
Central Govt.	0	14819	730	15549	0	137	7	144	0	95.3	4.7
A. P.	6441	1696	640	8777	820	216	82	1118	73.38	19.39	7.29
Andhra Pradesh	430	67	0	497	3776	589	0	4365	86.51	13.49	0
Assam	3054	672	52	3778	1089	239	19	1347	80.84	17.78	1.38
Bihar	11854	1091	202	13147	1021	124	23	1497	90.17	8.3	1.53
Delhi	1004	721	55	1780	664	476	37	1177	56.41	40.48	3.11
Goa	524	116	22	662	3613	798	153	4564	79.17	17.48	3.35
Gujarat	4893	996	424	6313	920	187	80	1187	77.51	15.78	6.71
Haryana	3385	421	175	3981	1518	189	79	1786	85.03	10.56	4.4
H.P.	2126	306	40	2472	3377	486	64	3927	85.99	12.38	1.63
J & K	1759	471	47	2277	1609	431	43	2082	77.26	20.69	2.05
Karnataka	3847	1267	353	5467	702	231	64	997	70.36	23.18	6.46
Kerala	8373	1048	281	9702	2548	319	86	2952	86.3	10.8	2.9
M.P.	6432	1051	228	7711	746	164	35	1200	83.41	13.63	2.96
Maharashtra	11703	3527	726	15957	1156	348	72	1576	73.34	22.1	4.55
Manipur	420	89	8	517	1680	356	32	2068	81.24	17.2	1.56
Meghalaya	58	94	8	160	242	388	34	664	36.45	58.37	5.18
Mizoram	38	58	0	96	405	623	0	1027	39.39	60.61	0
Nagaland	1024	84	7	1116	4897	404	37	5338	91.74	7.57	0.7
Orissa	2999	684	111	3795	786	179	29	995	79.04	18.02	2.93
Punjab	3493	827	273	4593	1379	326	108	1813	76.05	18	5.95
Rajasthan	3399	1190	267	4855	565	198	44	808	70	24.5	5.5
Sikkim	72	55	0	127	1274	965	0	2240	56.89	43.11	0
T.N.	3624	1590	760	5974	566	248	119	933	60.67	26.61	12.72
Tripura	253	100	13	366	760	301	40	1101	68.99	27.35	3.66
U.P.	17158	2650	550	20359	924	150	31	1152	84.28	13.02	2.7
W.B.	7782	1715	433	9929	931	205	52	1188	78.38	17.27	4.36
U.Ts.	3160	325	227	3712	11168	52	37	598	85.13	8.74	6.12
State Totals	109308	17965	5906	133178	1012	167	54	1233			
GT [GOI+ State]	109308	32784	6636	148727	1012	304	61	1377	73.5	22	4.46

Source : Based on National Health Accounts (NHA) 2001-02

Notes : (i) Household Expenditure based on NHA for the year 2001-02 and extrapolated for 2004-05

(ii) Central Govt. expenditure includes transfer to states, other central ministries and central PSUs, and data obtained from Demand for Grants (Provisional), Govt. of India.

(iii) Govt. Expenditure includes Central, States, Local Govt., and PSUs; data obtained from State's Finances (Provisional), RBI, various issues

(iv) Others include foreign agencies, private firms and NGOs; data relates to 2001-02, which is subsequently extrapolated for 04-05.

NH as % of THE = Per Capita Household Expenditure; PC G.G. = Per Capita Govt. Expenditure; PC Other Exp. = Per Capita Other Expenditure; NH as % of THE = Household as % of Total Health Expenditure; PE as % of THE = Public Expenditure as % of Total Health Expenditure; OE as % of THE = Other Expenditure as % of Total Health Expenditure; C. Govt. = Central Govt.; U.Ts = Union Territories.

TABLE 8: INDIAN HEALTHCARE DELIVERY FORMATS FOR FUTURE

Delivery Formats	Functionality	Service Differentiator
Retail Healthcare	Basic/Primary Medical Care in Retail Outlets (Markets/High Streets/Malls)	Accessibility and convenience
Medical Malls	Multiple independent clinics/ stores/centers in a mall set up	Accessibility & greater depth of service
Day Care Surgery Center	Diagnostic & Therapeutic stand alone intervention centers	Better ambience, high patient satisfaction & cost effectiveness.
Assisted Living	Special Residential care (with Medical Facilities) meeting needs of the elderly.	Planned facility enabling self sufficiency & quality of life.
Rehabilitation Centers	Restoring functionality in a convenient environment	Better accessibility at a lower cost.
Boutique Health Centers	Focus on beauty and wellness	Personalised care in an exclusive environment

Source: Technopak Healthcare Outlook, 2007⁹.

Figure 1: Health care financing in India, 2002 (%)

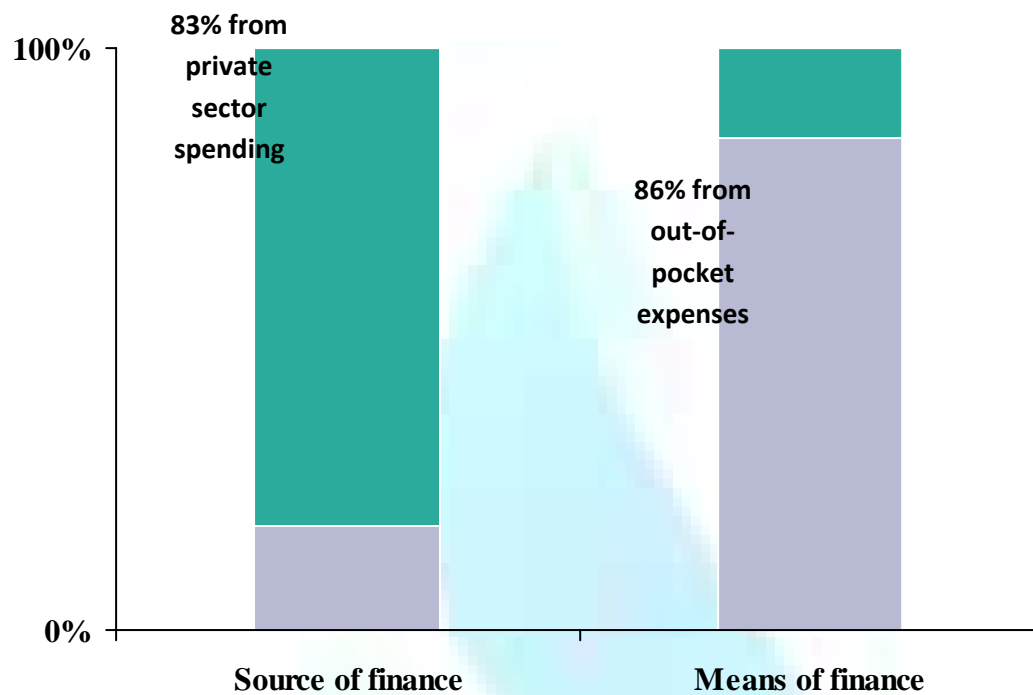
Source: WHO, CII-McKinsey study, 2003¹³.

FIGURE 2: GAPS IN HEALTHCARE SERVICES

Gap 1	Differences between patient expectations and management perceptions of patient expectations
Gap 2	Difference between management perceptions of patient expectations and service quality specifications
Gap 3	Difference between service quality specifications and service actually delivered
Gap 4	Difference between service delivery and what is communicated about the service to patients
Gap 5	Perceived service quality is defined in the model as the difference between consumer expectations and perceptions, which in turn depends on the size and direction of the four gaps associated with the delivery of service quality on the marketer's side

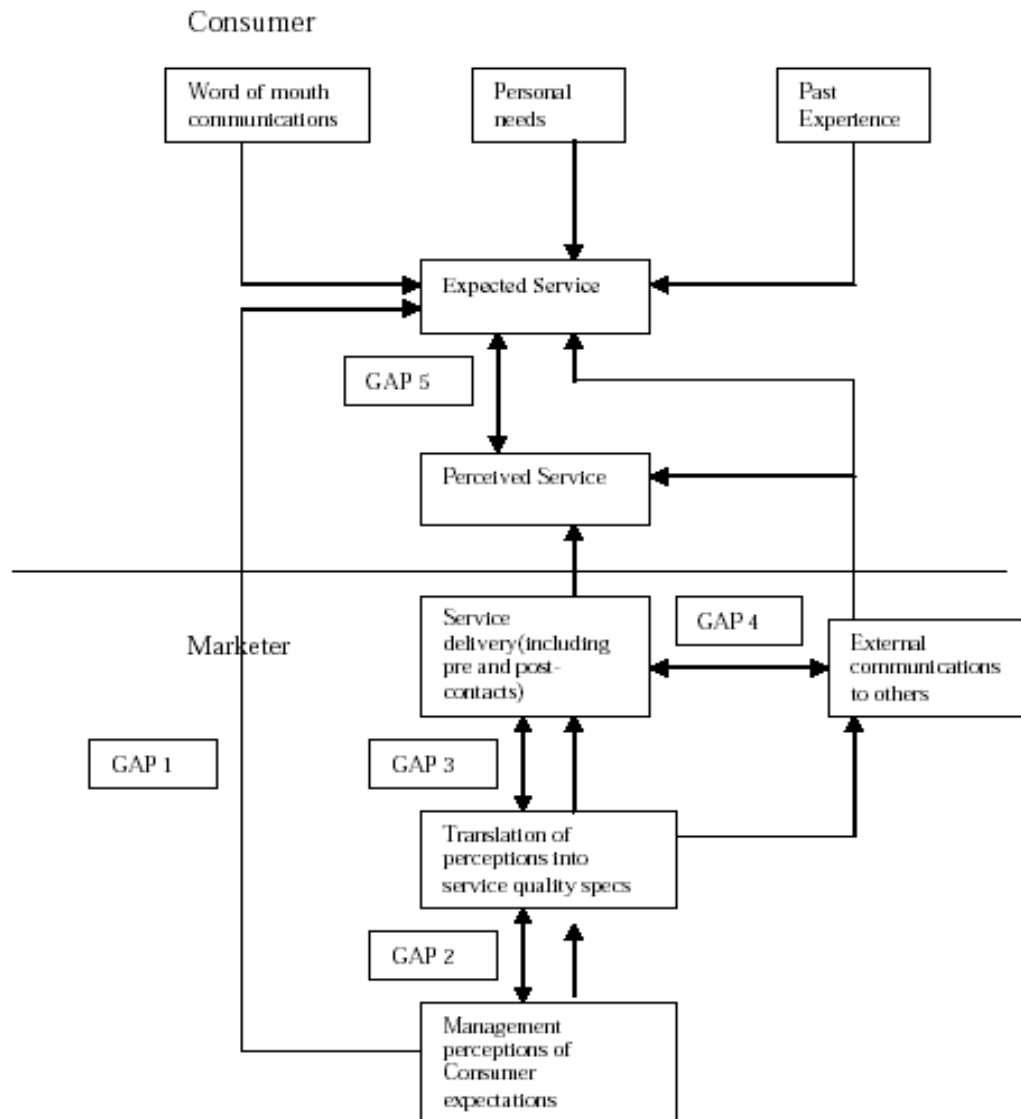
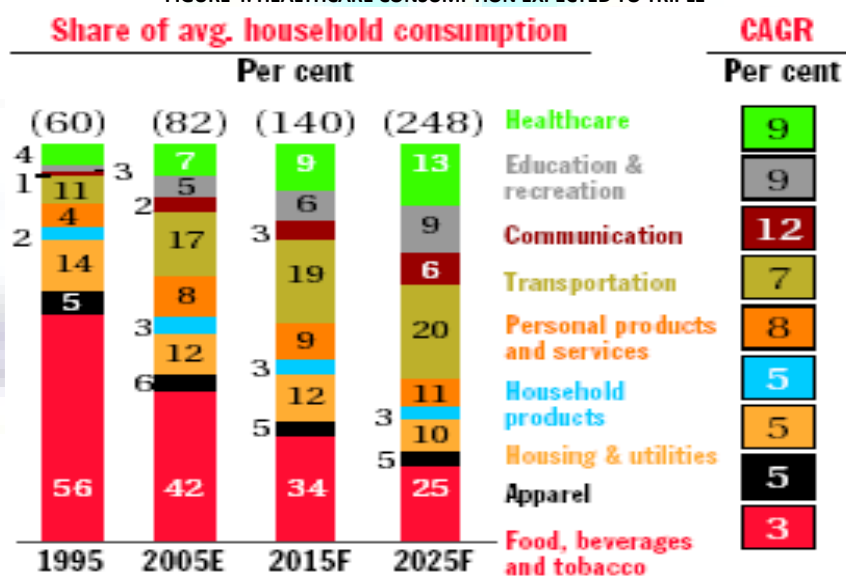
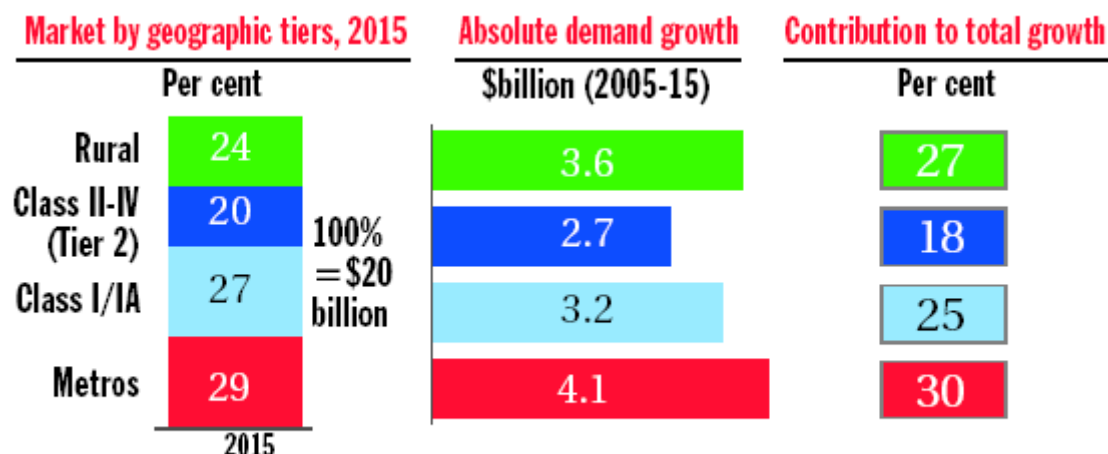
FIGURE 3: CONCEPTUAL MODEL OF SERVICE QUALITY⁶ (Parasuraman et.al., 1985)

FIGURE 4: HEALTHCARE CONSUMPTION EXPECTED TO TRIPLE



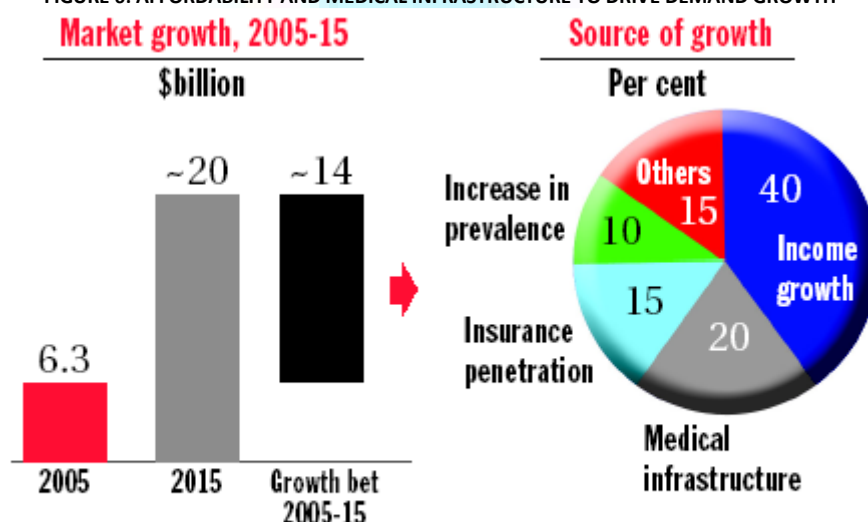
Figures have been rounded off; Figures in brackets are average household consumption in Rs thousand Source: McKinsey report 07

FIGURE 5: RURAL AND TIER-II MARKETS TO CONTRIBUTE ALMOST HALF OF GROWTH TILL 2015



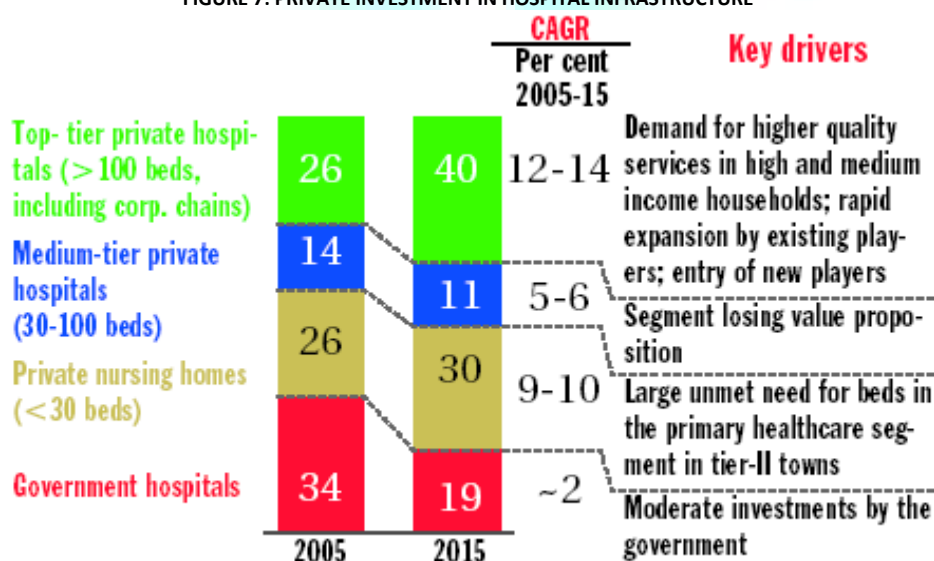
Metros: more than 1 million population, Class I towns: 0.1-1 mn, Class II-IV: 5k- 0.1 mn, Rural: less than 5k
Source: McKinsey India Pharmaceutical demand model

FIGURE 6: AFFORDABILITY AND MEDICAL INFRASTRUCTURE TO DRIVE DEMAND GROWTH



Source: McKinsey India Pharmaceutical demand model

FIGURE 7: PRIVATE INVESTMENT IN HOSPITAL INFRASTRUCTURE



Source: Secondary research annual reports; interviews; McKinsey analysis

FIGURE 8: 20 PERCENT OF INDIAN POPULATION INSURED BY 2015

Components	Key drivers	Coverage (million)	
		2006	2015
Premium-based health insurance	Removal of regulatory hurdles; active market shaping by private health insurers; entry of international players and life insurers	25-30	~125
Social insurance/welfare funds	Relaxation in income ceiling or enterprise criteria (though this will be limited by small size of organised workforce with wage employment)	35-40	~50
Employer provided (sponsored benefits)	Employers increasingly preferring premium-based coverage plans; no appreciable growth expected in public sector employment	30-35	~35
Community insurance (self-funded)	Increased efforts of NGO/self-help groups	2-3	8-10

Source: Secondary research, interviews, McKinsey analysis

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