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Hospital Chains in India: The Coming of Age?

Bertrand Lefebvre

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Summary

In many countries, the provision of hospital care is turning into an industry with the increasing presence of large corporate hospital chains. Along with public agencies and small private operators, corporations are now investing in the Indian hospital sector.

Since the 1980s, health sector reforms and the liberalization policy in India have created new profit-making opportunities in the health care market for local and international corporations. A new pro-market regulatory environment has helped private corporations to invest in the hospital sector. While the demand for hospital care has increased in India, public and private hospital care providers failed to deliver not only in terms of volume (i.e. number of beds) but also in term of quality of care. With such an untapped market and a favorable regulatory environment, corporations see a tremendous growth potential in Indian hospital care.

This paper documents the formation of corporate hospital chains in India, their increasing prominence in the delivery of hospital care, and central and state government's role in this transformation.

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Introduction

Over the years corporate hospital chains like Fortis Healthcare, Wockhardt Hospitals and Apollo Hospitals have made headlines for their impressive expansion plans in India and abroad. More than 25 years after Apollo Hospitals launched its first hospital in Chennai, corporate hospital chains are now present in every Indian metropolitan area and are now entering Tier 2 urban markets (Tier 2 towns are urban agglomerations with more than one million inhabitants excluding the six largest urban areas in India). This corporatization of hospital care is not specific to India. We understand corporatization here as the entry of publicly traded corporations into a specific sector, not as the use of corporate governance principles into public sector entities. Hospital chains have expanded in USA (Salmon, 1990), in Australia (Barnett, Brown, 2006), in Europe and in other emerging countries like China and South Africa.

Since the 1980s, health sector reforms and the liberalization policy in India have created new profit-making opportunities in health care markets for local and international corporations. A new pro-market regulatory environment has helped private corporations to invest in the hospital sector. While the demand for hospital care has increased in India, public and private hospital care providers failed to deliver not only in terms of volume (i.e. number of beds) but also in terms of quality of care. With such an untapped market and a favorable regulatory environment, corporations see tremendous growth potential in Indian hospital care.

The privatization of hospital care and the early stages of its corporatization have been researched by various authors throughout the 1980s and 1990s (see Baru, 1998). Since the early 2000s more hospital chains have been created and have expanded all over India. From national level hospital chains like Apollo Hospitals and Fortis Healthcare to regional level networks like Max Healthcare and CARE Hospitals, hospital chains are more diverse than before. In terms of sources of funding, network models, technical and management partnerships, and market segmentation, each corporate hospital chain is looking for its own market space in an increasingly competitive environment. While the failures of the public-private partnership in the hospital sector have been well documented (Public Action Committee, 2006), central and state governments have shown a renewed interest in supporting corporate hospital chains.

Therefore, this paper wishes to document the formation of corporate hospital chains in India, their growth strategies, their

increasing prominence in the hospital sector and the role of central and state governments in this transformation.

In the first section, we will review how the hospital sector and corporate hospital chains have developed into an industry. In the second section we will review the latest trends of the sector and the various strategies of corporate hospital chains to expand their networks.

The Birth of an Industry

Since 1983, and the creation of the first corporate hospital in Chennai, the hospital sector has attracted an increasing number of private investors. We review in this section the main factors attracting private investors to the hospital sector, the hospital policies of central and state governments, and the role played by domestic and international capital in the formation of hospital chains.

Hospital care: a promising sector

Different factors have attracted private investors to hospital care delivery. A first element is the rising demand for hospital care in India. Since Independence in 1947, life expectancy in India has more than doubled, rising from 28 years to 69 years in 2009. The Indian population has increased and aged. According to the Census of India, the old age population (> 60 years old) rose from 19 million in 1951 to 77 million in 2001. An ageing population means an increasing need for hospital care as seen in other emerging countries like China or Brazil. In addition to such demographic trends, morbidity rates of India's population are also shifting.

While infectious diseases like tuberculosis are still taking their toll, degenerative diseases are becoming a major health concern in India. Cancers, diabetes, cardiovascular diseases, and coronary heart diseases are on the rise. According to some evaluations, about 29.8 million people had coronary heart disease in India in 2003. The country is expected to account for 60 percent of heart disease patients worldwide by 2010 (Pande, 2004). The number of diabetic patients in India more than doubled from 19 million in 1995 to an estimated 50.7 million in 2010 (International Diabetes Federation, 2009). These diseases require proper medical and hospital care. It was estimated that spending on in-patient care accounts for 47 percent of total private healthcare spending because of lifestyle diseases (CII-McKinsey, 2002).

The economic growth of the last fifteen years has also meant that an increasing part of India's population can afford to spend more on healthcare. One report estimates that India's middle class

numbers as many as 50 million people[1] (McKinsey Global Institute, 2007). This number is expected to expand in the coming decades as more households are expected to move away from poverty. In a country where out-of-pocket expenses still represent 70 to 80 percent of the total health spending, such a trend means that more money can be spent on healthcare and health insurance. An increasing share of the Indian population can afford to get treatment from the private hospital sector. Figures from National Statistical Survey Organization (NSSO) socioeconomic surveys show that over the years, the share of hospitalization cases treated by the private sector in urban areas rose from 40 percent to 62 percent between 1986 and 2004. Even in rural areas the share of private sector hospitalization went up from 40 percent to 58 percent for the same period (NSSO, 1987, NSSO, 2004).

While the demand for hospital care is rising, public and private hospitals are too few and their geographic distribution too skewed to meet such demand (National Commission of Macroeconomics and Health, 2005). There is one hospital bed per 1139 persons compared to one bed per 432 persons in China (Dummer, Cook, 2008). With 35 beds per hospital, the average number of beds per hospital is small compared to China (50 beds per hospital) and Brazil (75 beds per hospital) (CII-McKinsey, 2002). Public hospitals are in complete disarray. They are faced with shortage of medical staff and overcrowded with ambulatory cases that should be treated at nearby but defunct dispensaries. According to the last National Family Health Survey (NFHS), 68 percent of people surveyed do not use public hospitals and dispensaries because they feel their quality is poor. Forty-seven percent of the population cannot use public facilities since they are not located nearby (NFHS, 2004). Most of the people choose private hospitals and nursing homes, although they are costly compared to the public sector. Government authorities have failed in monitoring the cost and quality of care delivered by private providers. There is a crying need for more tertiary and secondary care hospitals in India. It is expected that with the change of demographic and ailment profile over the next decade, an additional 750 000 beds would be required just to reach international standards of in the delivery of hospital care (CII-McKinsey, 2002).

Given this scenario, several private investors see huge growth potential in hospital services. Central and state governments have done their best to attract more private investors to the hospital sector.

[1] According to this report, households with annual income worth 200.000 INR (3000 euros) and 1 million INR (15.000 euros) belong to the middle class.

The pivotal role of the state

Central and state governments proved decisive on several occasions in helping hospital chains expansion. We review in this section the unfinished history of the partnership between the Indian state and corporate hospital chains.

In 1983, Apollo Hospitals opened its first facility in Chennai. The hospital was the first hospital ever to be registered as a publicly listed company in India. In those years a hospital was either run by a charitable society or by state-managed bodies. Dr. Prathap Reddy (chairman of the Apollo Hospitals Group) was the pioneer of corporate hospitals in India and had to face various hurdles before the Chennai hospital could open[2]. He could not raise money from the banks because hospitals were not eligible for funding from public financial institutions. After several trips to Delhi to meet Prime Minister Indira Gandhi and her Finance Minister, he obtained a one-time exemption to receive such loan. He convinced some of his former NRI colleagues based in the United States to invest in his new hospital. His daughters and a patient, V.J. Chacko, a former executive in a large Indian company, helped him in running the hospital. This corporate venture was a first in a sector marked by strong family involvement at every level: medical practice, management and ownership. Dr. Prathap Reddy's initiative also came at the dawn of a new era in health policy in India.

In 1982, the National Health Policy (MOHFW, 1984) recognized the role private providers could play in reaching the “health for all” goals. The health sector received industry status that opened the doors of public institutions like the Industrial Development Bank of India. Private, corporate hospitals then could get loans with better interest rates. Customs duties were lowered on the import of medical equipment. In the 1980s state governments and municipalities were offering construction sites to private groups at reduced price or for free to build and run new hospitals. While charitable organizations have previously been the main beneficiaries of such policies, new trust societies with sometimes less-than-clear charitable objectives and private corporations were granted access to such plans in Delhi, Hyderabad and other towns. In return new hospitals were expected to provide free care to poor patients. Land and real estate prices have always acted as a brake upon hospital investment in India. Unfortunately, such schemes have never been monitored with caution. For instance, in Delhi, only 4 of the 27 private hospitals that were allotted land by the Delhi Development Authority (a state agency) between 1971 and 2000 were still functioning in 2003 (Public Account Committee, 2005). In 1988, a bid was opened

[2] In an interview Dr. Prathap Reddy recalled having to make 12 applications to Central and State Governments for each of its 370 medical equipment (http://www.expresshealthcare.in/200901/50pathfinders02.shtml).

to create a new hospital in Delhi through a partnership with the Delhi Government. While the facility was supposed to be run by a trust society on a charitable basis, Apollo Hospitals made a separate offer that lead a couple of years later to the inception of their largest hospital ever. Because of political patronage, weak enforcement from public authorities and interpersonal relations, the monitoring of such schemes remained poor during the 1980s and 1990s.

With the 1991 Structural Adjustment Policy (SAP), central and state governments were more open than ever to the idea of an increased privatization of hospital care. SAP put pressure on public budget and spending. While the government's share in total health spending was 32 percent in 1994, it fell to 20 percent in 2001. Between 1991 and 2001, the share of capital investment in hospitals fell from 25 percent of the central government budget to a meager 6 percent (National Commission of Macroeconomics and Health, 2005). Private investors were expected to compensate for the decrease of public investment in hospital care.

A pro-investors regulation came into place. Foreign Direct Investment (FDI) was encouraged and gradually previous restrictions on foreign investment were withdrawn. Between August 1991 and August 1997, the Foreign Investment Promotion Board (FIPB) approved FDI proposals worth US$100 million (about Rs 3600 million) in the Indian health care sector, hospitals and diagnostic centers (Purohit, 2001). Since January 2000, 100 percent FDI is allowed through the direct route to the hospital sector.

Import duties on medical equipment were reduced again in the 1997-98 central government budget. The following year, the insurance sector was liberalized and opened to private investors. Because of the medical costs borne by patients, the development of a strong insurance sector is central to the hospital sector's own development. From the mid-1990s several international insurance companies, like UK-based BUPA, looked at opportunities on the Indian market. By the early 2000s, many of them rolled out their operations. Because the insurance sector was at a nascent stage with few operators, some corporate hospital chains had to develop their own insurance schemes.

With the support of the central government and international agencies like the World Bank, corporate hospital chains started to enter into close partnership with state governments. Apollo Hospitals, Delhi Government and TWL Holdings from Mauritius were stakeholders in the Indraprastha Medical Corporation, the Mauritius-based parent company of Apollo hospital in Delhi. Wockhardt Hospitals and Maharashtra Government inked a similar joint venture with the financial support of a World Bank loan (Yamey, 2001). In both cases, governments were providing land and building at nominal cost while the corporate hospital chains were managing the facilities. Poor patients were expected to receive medical care from these facilities for free. The agreement between Wockhardt and the

Maharashtra Government was terminated in 2003 on fear of too favorable conditions for the private party. Since its inception in 1996, Indraprastha Apollo Hospital failed to comply with its obligations towards poor patients. In 2009, the Delhi High Court passed a judgement against the hospital on this issue.

During the nineties various attempts have been made to build new forms of partnership in hospital care between private operators and public authorities. Terms of agreement have been left to each party's own understanding. In several instances the criteria for defining a poor patient, or the extent of care to be provided free of cost by the hospitals, were not clearly stated in agreements. The monitoring and the enforcement of such agreements remained too weak. Agreements have been scraped down because of government change. Public authorities have been asked to invent, in a few years span, new forms of governance for hospital care. As a result, the late 1990s and early 2000s were marked by bitter disappointment from both public and private stakeholders of public-private partnership in hospital care.

Through the years, hospital chains started to form a proactive lobby through the Confederation of Indian Industry's (CII) National Committee on Healthcare and the Indian Healthcare Federation (IHCF), started in 1998. This lobby regularly organises professional meetings where best practices are shared among participants. Health Ministers from central and state governments are also invited to meet hospital managers and executives from hospital chains. This lobby has organised mission trips to the United Kingdom, the Middle East and South East Asia to herald the quality of Indian hospitals as well as learn from other countries experiences. CII and key representatives like Dr. Prathap Reddy and Dr. Naresh Trehan have been the most vocal representatives of the hospital sector, particularly in demanding more support from central and state governments.

The 2002 National Health Policy recognized the need to help private providers in developing new facilities and for example tapping the promising medical tourism niche. In its 2003-04 budget, the central government, while claiming to promote the private sector as a whole, aimed most of its help at corporate hospital chains. Customs duties on life saving medical equipment went down from 25 to 5 percent. Tax exemption was offered to long-term capital investments in more than 100-bed hospitals projects. This tax exemption was aimed at corporate hospital chains and at the financial institutions investing in these projects as well. In its 2008 budget, the central government offered a new five years tax exemption to any new hospital opening in urban agglomerations apart from the six largest metropolitan areas of the country[3]. This tax exemption will promote

[3] The six exempt metropolitan areas are namely: Mumbai, Delhi, Kolkata, Chennai, Hyderabad and Bangalore.

the development of hospital services in urban areas known to be underserved as well as their rural hinterland.

In 2007, another important step was taken with the introduction of tax exemption for households purchasing health and life insurance. This measure helped in boosting the health insurance market and was later extended to the purchase of health insurance for a household's parents. The launch of the Rashtriya Swasthya Bima Yojna (RSBY) and other State-sponsored insurance schemes could also help corporate hospital chains. In a fashion similar to the Medicaid and Medicare programs from the 1960s in the United States, RSBY helps poor households to access hospital care while giving them some scope for choice. Medicaid and Medicare schemes were instrumental in the growth of US corporate hospital chains like Hospital Corporation of America because they provided the chains with a regular source of income. Central and state governments are becoming financers of hospital chains.

The 2000s were also marked by a renewed effort to build a proper accreditation system for hospital care. Through the National Accreditation Hospital Board, an autonomous body, and some State-level accreditation schemes the objective is to standardize the quality of care and safety norms in Indian hospitals. In a competitive environment, such norms help corporate hospital chains to position and promote their medical and safety excellence in the face of a largely unorganised private sector. With the development of private health insurance, such an accreditation system should reinforce the patient's trust in these facilities. Over the years, central and state governments have engaged increasingly with the private hospital sector. From providing hospital care, the Indian State is trying to reinvent its public health missions towards more funding and regulation for the private sector. Hospital chains are then the main beneficiaries of these new orientations.

The role of domestic and foreign capital

With such an attractive environment, private investors have been increasingly present in the hospital sector. We review here the role of domestic and foreign capital in the growth of corporate hospital chains.

With the aim to serve the community, Indian business families (i.e. Tatas, Birlas) have created and supported charitable hospitals since the end of the 19th century. From the 1980s, Indian business groups had a renewed and more lucrative interest in the hospital sector. With the different measures supported by central and state governments, running a hospital on a profit basis was becoming less risky. The success enjoyed by Apollo Hospitals and some NRI investors nurtured the idea that the hospital sector could be a profitable venture. Looking for diversification, industrial and financial

groups were attracted to this sector from the 1990s. Indian pharmaceutical giants have been particularly active in hospital sector. Wockhardt opened its first medical center in 1990 in Kolkata and its first hospital in 1991 in Bangalore. Ranbaxy promoters created Fortis Healthcare in 1996 and opened their first hospital in Chandigarh in 2001. After selling its profitable telecom branch, Max India created Max Healthcare in 2000 and operated its first hospitals in 2002. From the mid 2000s, other groups of national and regional reputation, like Hindujas, Birlas, joined the race and are presently trying to develop their corporate hospital network. Even if the gestation period is slow and financial returns are long to come, the hospital sector presents itself as a new growth opportunity for business families. In what used to be a cottage industry with small family-run facilities, these groups are bringing unmatched financial strength and managerial skills.

As seen from the previous section, with the opening of India to the global economy, the involvement of foreign-based investors gained momentum over the years. During the 1980s and the 1990s, Non Resident Indians (NRI) and in particular the ones involved in the medical sector in the USA and the United Kingdom have been very active in investing in new hospitals. Indian metropolises, like Bangalore and Hyderabad have seen several large hospitals run by NRI come into existence since the late 1980s (Baru, 1998). Over the past twelve years, the International Finance Corporation (IFC), the private sector arm of the World Bank, has funded several corporate hospital chain projects (see *table 1*). IFC finances private sector investments in developing countries. Many corporate hospital chains have received financial support from the IFC through loans or equity, accounting on average for 32 percent of the total cost of each project. IFC invested or loaned just under US$ 225 million to hospital chains in India since 1997. Some companies like Max Healthcare and Apollo Hospitals have turned regularly to IFC to fund their development plans. *Table 1* gives us an idea of the increasing need for funds over the years for larger and larger projects. For instance, the last loan from IFC to Max Healthcare will help the group up-scale most of its Delhi hospitals in size and expand its network in northern India (US$ 90 million project).

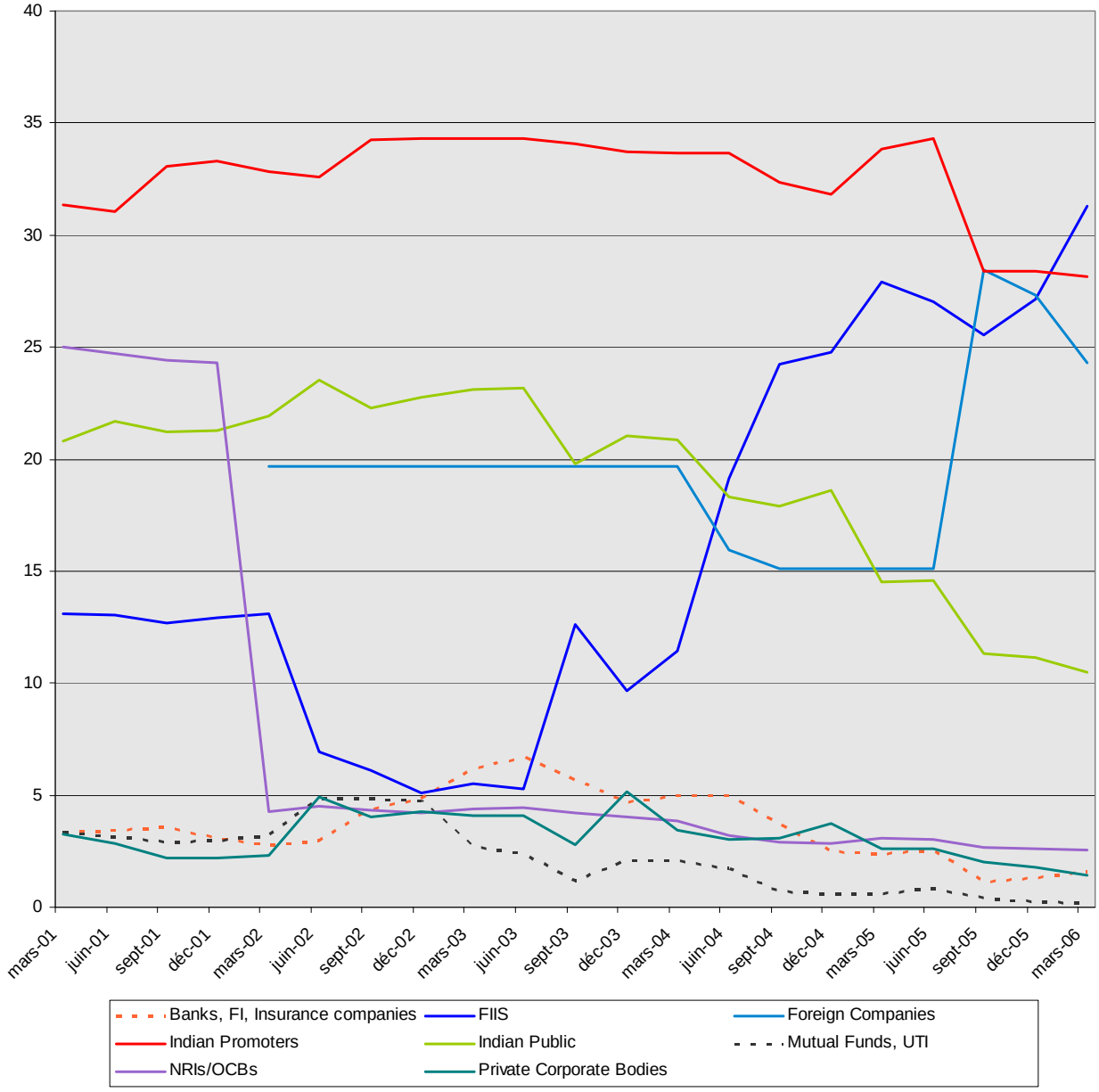
Table 1. Corporate hospitals' projects funded by IFC in US$ Million, % of project total cost in bracket

Corporations	Project Cost	IFC Loan/Investment	Year of signing
Duncan-Gleneagles	29	7 (24%)	1997
Max Healthcare	84	18 (21%)	2002
Apollo Hospitals	70	20 (29%)	2005
Artemis	40	10 (25%)	2006
Max Healthcare	90	67 (74%)	2007
Rockland	76	22 (29%)	2008
Max Healthcare	93	30 (32%)	2009
Apollo Hospitals	200	50 (25 %)	2009

Source: http://www.ifc.org/

IFC is now joined by other Foreign Institutional Investors (FII). Looking at the huge potential of the Indian economy, FIIs invested massively, particularly after 2001. Because of FII investments, the Sensex went from 2,500 levels in 1993, to 20,200 levels by end 2007. Looking for promising sectors, the hospital sector caught the attention of some FIIs. They became increasingly present in the capital of companies like Apollo Hospitals and Max Healthcare. *Table 2* shows the shareholding patterns of Apollo Hospitals from March 2001 to March 2006. Over the years the balance of shareholding is evolving in favor of foreign companies and FIIs while the promoters' share remains near 30 percent of the total shares during this period. The share of FIIs went up from 5 percent in early 2003 to more than 30 percent of the total shares in March 2006. International private equity players like AIG, JP Morgan Stanley, Blackstone Group, Quantum, Blue Ridge, and Carlyle have invested in recent years in Indian hospital chains. Global Healthcare Investments and Solutions aimed part of its US$ 500 million funds at Indian tertiary care hospitals.

Table 2. Apollo Hospitals shareholding pattern (%) from March 2001 to March 2006



Source: http://www.bseindia.com/

Table 2 reminds us incidentally of the minor role played by Indian public and Indian financial institutions (banks, mutual funds, etc.) in the capital of hospital chains in the first half of 2000s. This has recently changed. With the financial crisis, some FIIs have withdrawn their investments from India. But Indian financial institutions are now more interested than ever in investing in social and healthcare infrastructure. In times of financial crisis, healthcare is often perceived as a more resilient sector particularly in the Indian context, where opportunities for growth are still plentiful. The largest Indian private

equity firm, ICICI, has even created a US$ 250 millions investment fund called IVEN Medicare to fund the development of hospitals and hospital chains. So far it has invested INR 400 million in the RG Stone hospital chain, INR 1400 million in Sahyadri Hospital to build an integrated hospital network in and around Pune, and INR 650 million in Medica Synergie, a new hospital chain from West Bengal. A new generation of hospital entrepreneurs is now approaching these funds to develop fully integrated hospital networks.

But some groups have failed to attract funds. While, in 2007, Fortis Healthcare's Initial Public Offer (IPO) was a tremendous success being oversubscribed almost 3 times, Wockhardt Hospitals' similar attempt a year later was a deep failure. Wockhardt Hospitals' IPO was the largest issue to be withdrawn in India. Even after approaching mutual funds and private equity institutions, Wockhardt Hospitals could not find investors to fund its growth plan. Manipal Healthcare has had to keep its IPO project on hold for some time now. The hospital sector requires long-term investments that do not always suit the short-term logic of the stock market.

Of Markets and Networks: Hospital Chains at a Crossroad

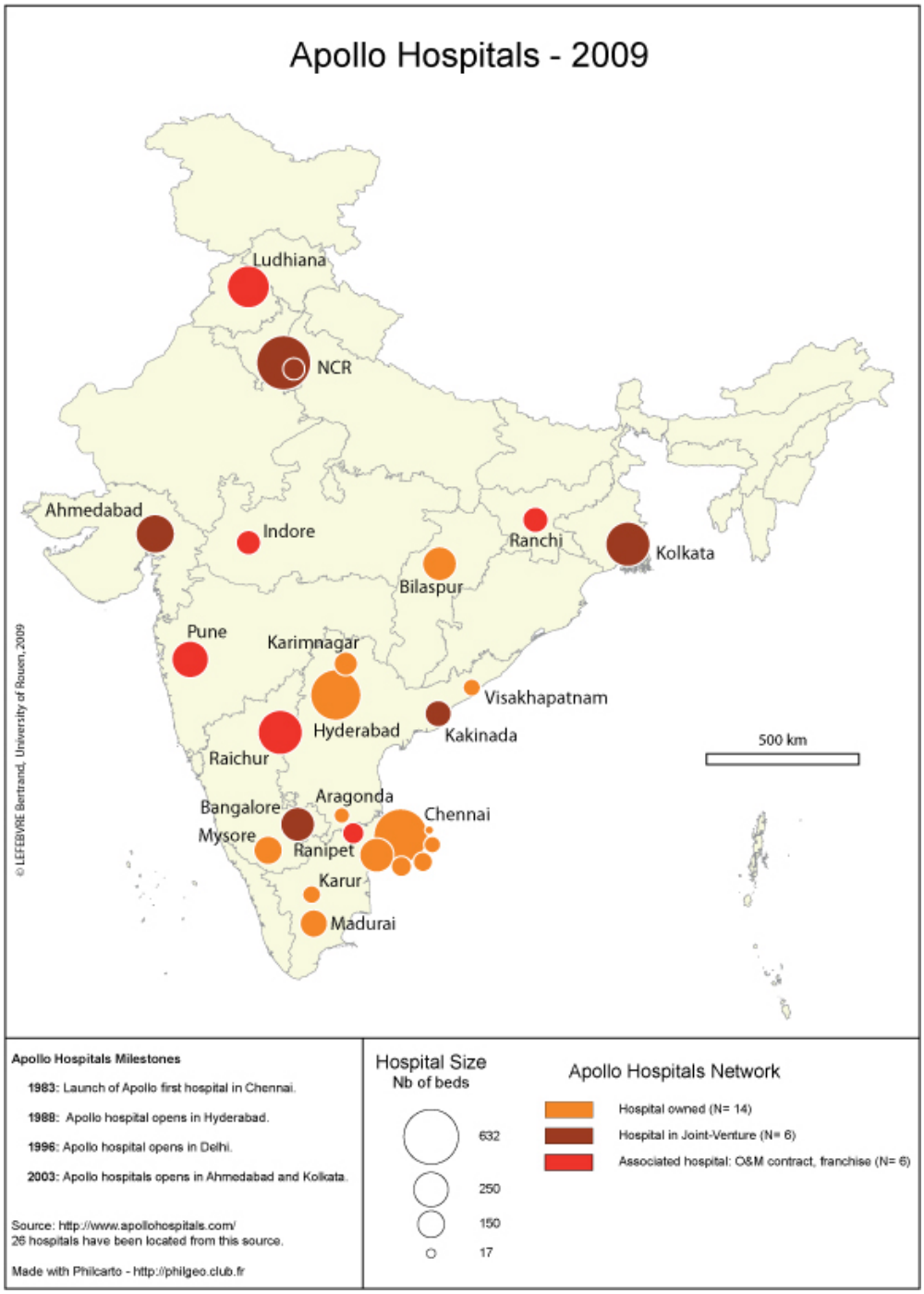
While hospital chains succeeded in forming a strong lobby, the competition between them is gaining momentum. Every year, new hospital chains are formed or announced even at pre-operational stage. Because of the financial objectives set to attract mutual funds and private equity firms, each hospital chain is mulling over its own growth-model. In this section we review the latest trends of the sector with regards to operational model, strategies, and markets.

Rethinking healthcare networks and partnerships

In an increasingly competitive environment, hospital chains are looking for various ways to grow and expand their network. Hospital chains are faced with various challenges in their expansion plans. The funds might be sufficient, but not the manpower to push the growth plan forward. The capacity to roll out its network in a phased and rapid manner is central to the growth of hospital chains and their profitability. The pace at which a new hospital breaks-even is essential. If a new hospital is losing money for a longer period than expected, this infrastructure will require more funds to cover the loss. Also, top managers will have to spend more time turning the facility around. These funds and managerial skills could not be used for a new project. Starting a hospital from scratch requires a lot of time and effort before the facility can break even and may require the top managers putting their hands in the day-to-day management. Dr. Prathap Reddy and his daughters kept visiting their new hospital in Ahmedabad every month during the first years of hospital's inception. It is interesting to notice that many hospital chains announced big expansion plans that never came about because of unforeseen management and financial bottlenecks. Adding new facilities to its network can make the hospital chain more complicated to manage. For instance, Manipal Healthcare expansion plans in Delhi, Mysore and Kolkata never took off partly because the group was still trying to stabilize its latest acquisitions made in 2006-2007. The success of Fortis Healthcare can be explained by its endless funding capability but also by its extended managerial capabilities. The group was able

to invest in hospitals and to turn them into profit centers in a short period of time (i.e. in Amritsar, or in Chennai).

Figure 1. Apollo Hospitals network - 2009



Hospital chains are now keen on building new forms of partnership in order to expand their networks. Ownership is no longer the key to expanding and managing a hospital network. Increasingly,

groups are relying on Operate and Manage contracts or in joint ventures with local partners to enter new regional markets. *Figure 1* presents the various hospitals that are part of Apollo Hospitals' network in 2009. Apollo Hospitals has expanded over a period of 26 years to become the largest hospital chain in India, and one of the largest in Asia[4]. Out of the 26 hospitals we could locate, 14 are owned by Apollo Hospitals and its subsidiaries. The twelve other hospitals are either franchised facilities or run in joint venture and through Operate and Manage contracts. Only 44 percent of the 5884 beds located on the *Figure 1* are owned by Apollo Hospitals. Because of its long experience in the management of hospitals, Apollo Hospitals has been called by local operators to either run or to help in revamping hospitals. The oldest hospitals belonging to the group, i.e. those located in Southern India, are fully owned by Apollo Hospitals. On the contrary, many of the most recent hospitals (like in Kakinada) are simply operated by the group or owned as through joint venture. Most of the Apollo hospitals in Western, Northern and Eastern India are associated hospitals (franchise and O&M contract) or joint ventures. In 1996, Apollo Hospitals opened its largest hospital to date through a joint venture with Delhi Government. The group also took over the share of the Duncan group in a tertiary care hospital in Kolkata. Thanks to these two operations, the group became a national-level operator, being present in Western and Eastern India. These agreements allowed Apollo Hospitals to expand its network rapidly at a minor cost and to enter regional markets where the group had a weak presence. Hospital chains are now trying to blend their networks by building new hospitals (Greenfield projects) and taking over existing hospitals (Brownfield projects) to reduce their network expansion costs.

There are now multiple forms of partnership between hospital chains that allow them to grow and expand their spatial reach while saving them from the heavy cost of an acquisition or internal growth. As seen before, an increasing number of investors and groups wish to invest in healthcare delivery but do not have the know-how of managing a hospital. Instead of competing against each other, some groups decide to build financial, technical and managerial partnerships. This is particularly true of newcomers in the field of hospital care. Zydula Cadila joined in the capital of Apollo Hospital in Ahmedabad with a view to expand its network in Gujarat with new hospitals. Had pharmaceutical group Zydula Cadila started its own hospital chain, it would have been faced with challenges similar to the ones faced by Fortis: a slow start, expansion bottlenecks, and a huge need of funds to cover the losses. The change of status of Apollo

[4] According to some sources, Apollo Hospitals is the largest hospital network in India and in Asia. Going through the company's annual reports and news clippings, we have been able to map the location of 26 hospitals out of 42. Even after interviewing some of Apollo Hospitals' managers, the exact number of hospitals belonging to the Apollo Hospitals network remains unclear. Some hospitals might use the brand Apollo for franchising while not being part of the Apollo Hospitals network.

Hospital in Ahmedabad from being a fully owned branch to a joint venture is instructive of the increasing co-operation between providers. Local hospitals run on a family-basis might also be looking for partners to improve their management and develop a local network. On the other side, some hospital chains are looking for funds to grow and expand their network outside their regional market. Apollo Hospitals has been particularly keen on this type of partnership. It was instrumental in developing the first hospital of diversified business group Sahara, in Lucknow, and in helping Sagar Hospitals in Bangalore to design and develop its facilities.

A promising nexus can be seen between hospital chains and real estate developers like DLF (Delhi Land and Finance), Emaar, and Hiranandani Constructions. Under Government norms, new townships have to keep a certain number of plots for healthcare and education facilities. Promoted as an integrated township with all the necessary amenities, townships are developed on the urban agglomeration outskirts where the infrastructure is usually poor. Therefore developers are looking for hospital chains to design and run medical facilities in their townships. Fortis Healthcare has signed an agreement to set up 14 hospitals in DLF townships, and is also in partnership with the Hiranandanis in Mumbai. While real estate is usually a drawback for hospital chains in terms of funds and operational development (i.e. delays in construction schedule), real estate developers can offer their land reserve and expertise to allow hospital chains to focus on their core business. Capital investment is then low for the operator.

To diversify or to specialize?

Hospital chains are relying on various strategies to expand their network and increase their revenues, particularly once it comes to the services provided.

Some groups like Apollo Hospitals, Manipal Healthcare and Fortis Healthcare have chosen to diversify their offer. From being tertiary care hospital chains, they have now entered in new segments of the health care market. Following the hub and spokes model, these groups wish to build integrated health care networks from the primary care level to the tertiary care level. Primary and secondary care facilities can be seen as feeders for the tertiary care facility: patients coming to the primary care facilities can be sent to the tertiary care hospitals for in-depth medical tests. Post-surgical treatment can be arranged closer to the patient's home at the secondary and primary care facilities. Doctors from the hospital can offer consultation for patients at primary care level facilities, sometimes through telemedicine. These primary and secondary care networks allow hospital chains to serve a much larger market area without investing in the construction of a hospital.

Apollo Hospitals has maximized on this model with its branch Apollo Clinic. Since 2002, around 60 Apollo Clinics have opened all over India and abroad. These facilities are run by franchisees that pay royalties to Apollo Hospitals while following a stringent guidebook. Each facility offers specialist consultation services, diagnostic facilities (laboratory, X-ray, ultrasound) and pharmacies. Some facilities are equipped with telemedicine facilities and emergency rooms. Apollo Hospitals is co-ordinating the marketing and global strategy of the network through regional offices. This franchising system does not draw from Apollo Hospitals' major capital investment to build the facilities. Over the years, one of the weaknesses of such franchising system has been the lack of integration between hospitals and the clinics. The flow of patients is far from being fluid between the secondary and tertiary care facilities. Most of the facilities that opened in Delhi in 2002 have now closed down while the Indraprastha Apollo Hospital has been developing its own secondary care network with associates in East Delhi, Vasant Kunj and Noida. Nevertheless, Manipal Healthcare is emulating such network with the launch of its Manipal Care & Cure clinics.

Diversification strategies can also rely on the reputation for excellence of hospital chains. Apollo Hospitals has developed a retail chain of pharmacies that is expanding rapidly throughout the country. There are now close to 900 Apollo pharmacies in India. Apollo Hospitals has also entered into a joint venture with German insurance company DKV to sell health insurance packages that could be offered at group's hospitals, clinics and pharmacies. Apollo Hospitals has also developed through the years a strong presence in outsourcing services: catering through Om Sindoori, billing and information system with Apollo Health Street and hospital designing and planning with Apollo Global Projects.

On the contrary, some chains have decided to focus on niche markets and build their growth strategy on specialization. Many chains like RG Stone, Vasan Eye Care, Health Care Global are positioning themselves as a sole provider of specific therapy or medical sub-disciplines. In 1986, Dr. Bhim Sen Bansal started the first RG Stone hospital in Mumbai by introducing lithotripsy in India, a non-invasive treatment for kidney stones. Over the past 20 years, RG Stone kept upgrading its technology while maintaining the focus on urology and laparoscopy. More recently a chain like Health Care Global is reproducing a similar model, centering its services on oncology. The chain runs 16 cancer centers throughout India. Interestingly, most of these chains are developing part of their network through partnership with local hospitals. Health Care Global is for instance running the Curie Center at the Shanti Mukand Hospital in Delhi. Neelkhant Hospital in Gurgaon hosts RG Stone urology and laparoscopy center in Gurgaon. Through this model, the chains are expanding rapidly all over India with minimal capital investment and benefit from the pooling of patients with the host facility. Hosting hospitals enlarge the range of their medical specialty

and let these chains bring in the expertise and usually top-end equipment necessary to proper care.

Interestingly, there is no exclusion between the diversification and the specialization strategy. A group like Fortis Healthcare is now positioning its subsidiary Escorts Heart Institute (EHIRC) as a dedicated chain for cardiac care. EHIRC has established itself as a trusted name in cardiac care. Fortis Malar hospital in Chennai is now hosting an Escorts Heart Institute unit while the GNRC hospital in Guwahati has signed an agreement with EHIRC for a medical and training partnership. Each group is also trying to find its niche in terms of pricing and segment of the markets. New hospital chains wish to cater to the need of a specific market segment. A chain like LifeSpring Hospitals aims at providing safe maternity and childcare for low-income patients through a network of small scale hospitals (25 beds) all over India.

From Dubai to Sultanpur: Looking for new markets

Like many Indian companies, hospital chains are trying to expand on the domestic market and at the international level as well.

Medical tourism and the development of facilities abroad are at the core of some groups' international strategies. Indian hospital chains have now established themselves as reliable providers of care. In several African, Middle-Eastern, and South Asian countries, there is a growing demand for Indian medical "savoir-faire" emanating not only from the patients but also from governments. Indian hospital chains are often called to design and operate hospitals abroad. In 1997, Apollo Hospitals was the first Indian corporate hospital chain to build and operate a hospital abroad, in Colombo, Sri Lanka. Such a move was possible because Apollo Hospitals was approached by the Sri Lankan Government. Also, among the foreign patients treated at Apollo Hospital in Chennai, Sri Lankans were the first group. The close distance between Chennai and Colombo, the existence of an established pool of patients coming from Sri Lanka and the support of the local government convinced Apollo Hospitals to venture in this foreign market. The foreign facility can help bring more foreign patients to the Indian facility. Also some markets, like the Gulf region, are more lucrative than the Indian one because of their higher pricing.

Through Operate and Manage contracts and joint ventures, Indian hospital chains are entering foreign markets. Since 2009, Fortis Healthcare and Apollo Hospitals are running facilities in Mauritius. Escorts Heart Institute has several clinics in Nepal and Afghanistan to help in serving and referring its foreign patients. While

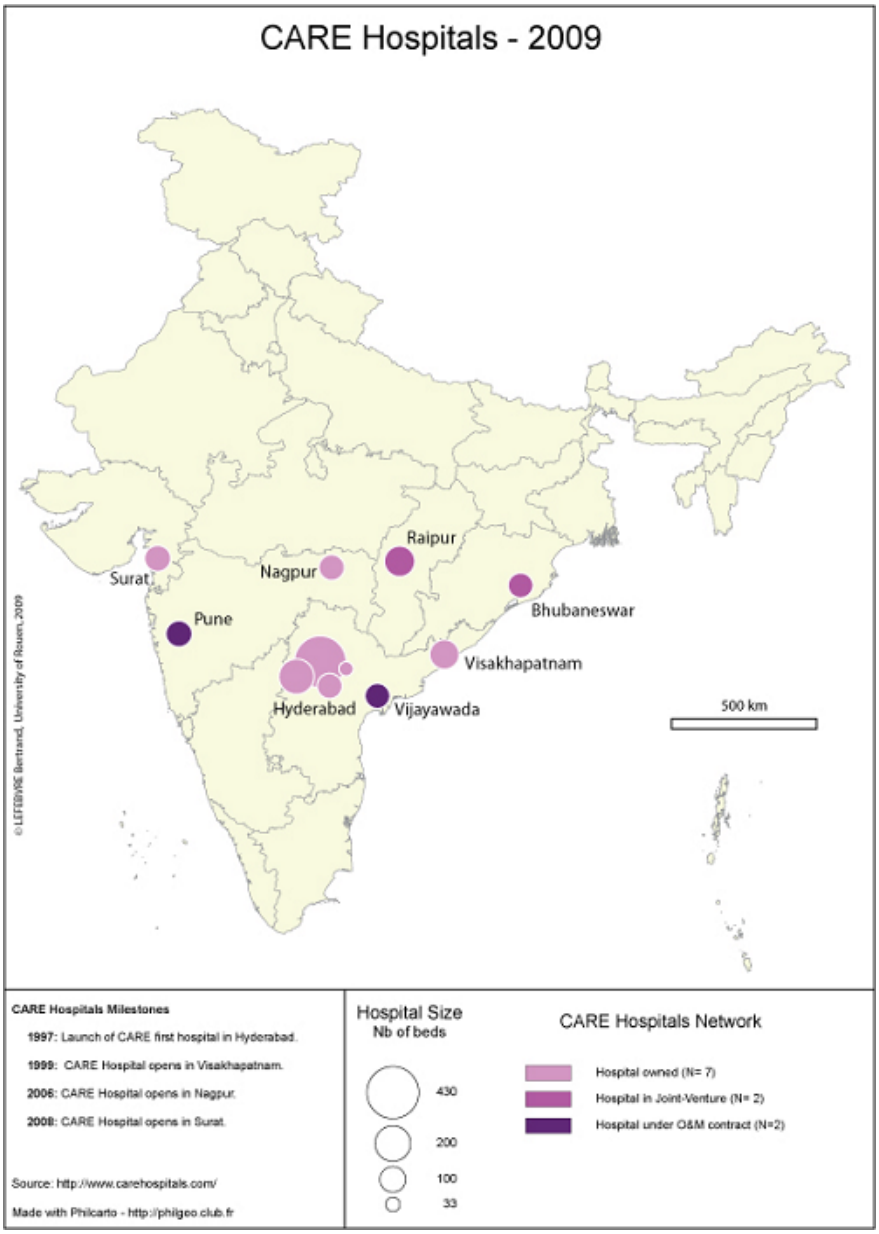
estimating the exact number of foreign patients seeking treatments in India remains difficult[5], many hospitals in Delhi and Hyderabad have shown a significant increase in foreign patients. Depending on the medical specialty and the location of the hospital, most of the foreign patients are from Southern Asia (Nepal, Bangladesh, and Afghanistan), Africa (Kenya, Nigeria, and Tanzania) and the Middle East. Non Resident Indians from northern America and Europe are also mixing their regular family visits with medical treatments. The final objective of corporate hospital chains remains to integrate medical tourism and foreign expansion to control the flow of international patients and medical staff. New medicity[6] projects in India (Delhi, Chennai, and Hyderabad) are a tool to meet the challenge of an increasing number of foreign patients. Medicities are also a way to attract patients from more economically advanced countries by integrating on the same campus medical and resort facilities.

In parallel to this internationalization of their activity, hospital chains are actively foraying in the Tier 2 town markets and are now present in all Indian metropolitan areas. They have rapidly expanded in markets where high-income groups are concentrated as well as a large pool of patients and medical professionals. The environment has become highly competitive between hospital chains and other segments of the hospital sector such as secondary hospitals that go for specialization or up-gradation. Markets outside metropolitan areas are then more and more sought after. Foreign groups, like Asia Columbia, wish to offer an international standard quality to Tier 2 towns through small-scale facilities (60-100 beds facilities). Apollo, through its new branch Apollo Reach, is clearly trying to target such markets, while the group is feeling the heat with the rapid rise of Fortis Healthcare in metropolitan areas (Bangalore, Delhi, etc.).

[5] From an estimated 150.000 foreign patients treated in India in 2002 (CII-McKinsey, 2002), the figures rose to 270.000 in 2007 and 500.000 in 2009 according to some sources (interviews).

[6] Medicity refers to a large campus gathering several hospitals with different specialities and peripheral activities (hotels, residencies, and training and research facilities).

Figure 2. CARE Hospitals network - 2009



A tremendous growth potential lies there and for various reasons. Tier 2 towns are expected to take a greater share of the economic and urban growth in India (McKinsey Global Institute, 2007). Tier 2 towns are not well provided in terms of infrastructure while high-income groups are living there. The central government gave a recent and welcomed support to the construction of new hospital facilities in these towns. Once a tertiary care corporate hospital is set up in a Tier 2 town, the entire market can be locked, leaving less space to make a new project viable. Also, opening a hospital in a Tier 2 town helps in serving not only the town itself, but also its hinterland. Rural patients will now find an easy and

convenient way to access hospital chain networks. Compared to metropolitan areas, developing a hospital is less costly in Tier 2 towns. Real estate prices are lower, and there is less competition with other chains for land acquisition. One drawback is sometimes the difficulty in attracting and keeping medical staff in these towns. Breaking even financially might also prove more difficult. In order to improve their success in these markets, hospital chains adopt various strategies.

Some chains, like CARE Hospitals, are looking for established hospitals in Tier 2 towns that wish to join their network (*Figure 2*). The group was created in 1997 in Hyderabad and has expanded rapidly in the area over the years with several Greenfield and Brownfield projects. Since the mid-2000s, CARE is expanding in Central India and Andhra Pradesh. Through joint venture or Operate and Manage contracts, CARE Hospitals save the capital investment of building a new hospital and recruiting new medical staff while also saving the years required to create an efficient referral system in these new markets. The local hospital and partners can benefit from the economies of scale and network: reduced prices to purchase consumables and medical equipment, continuous training of medical and management staff, and introduction of top-end therapies. In just ten years, CARE grew outside Hyderabad in most of the Tier 2 towns of Central India through these partnerships (Pune, Raipur and Bhubaneswar). Other groups like Apollo Hospitals and Manipal Healthcare also favor these Brownfield projects.

Other hospital chains luring at Tier 2 towns markets are creating specific hospital model. Foreign groups like Pacific and Asia Columbia, are entering with specific hospital model in order to contain capital investment. Facilities located in Tier 2 towns are expected to respond to most of health care needs of the population: a small sized hospital with less than 100 beds, without fancy marble, sometimes equipped with refurbished or second-hand medical equipment. The capital investment has to be kept as low as possible. But in phase with the hub and spokes model, complex and rare medical treatment will be provided only at tertiary care facilities in metropolitan areas. The idea is to integrate these new facilities into the network. Several hospital chains are envisioning the development of their hospital network through one tertiary care hospital in a metropolitan area and a network of secondary care facilities in regional Tier 2 towns. CARE Hospitals' model fits perfectly with this schema: Hyderabad is not only at the geographic center of CARE Hospitals' network but also at the apex of the network's pyramid by hosting the group's tertiary care facilities (*Figure 2).* Groups in other parts of India, like Sterling Hospitals in Western India, or Medica Synergie in Eastern India, also wish to develop their network according to this model.

Conclusion

In the summer of 2009, Fortis Healthcare acquired eight hospitals, plus two Greenfield projects from Wockhardt Hospitals for INR 9 billion (135 million Euros, US$ 195 million). This is so far the biggest deal ever inked in the Indian healthcare sector and a new chapter in the short history of Indian corporate hospital chains. The amount of funds poured into Indian hospital chains by domestic and international investors, the level of integration with other sectors (real estate, IT, etc.) and within the hospital sector (joint venture, O&M contract), the increasing number of hospital chains, and the strength of the industry's lobby lead us to think that the hospital sector has now matured into a strong industry. While investors in the 1980s and 1990s were investing in sole-facility projects, the latest generation of hospital entrepreneurs has ambitious plans to set up regional and integrated hospital networks.

This corporatization and the aggressive expansion plans of hospital chains have caused great concerns on various grounds. The entry of former charitable hospitals into these networks and the medical technology race between hospitals to attract patients and doctors have been driving the medical cost up for the patients. The gap between corporate hospitals on one side and other private and state-run hospitals on the other side has surely increased. New corporate hospitals are attracting the best medical teams and the wealthiest patients. The issue of equity between different segments of the population in the delivery of quality healthcare is once again raised in India. While corporate hospital chains have benefited from various forms of public subsidies (tax and customs duty exemptions, free land, etc.), their commitment towards public health goals and state-sponsored poor patients is tarnished by dubious records (see Public Account Committee, 2005). Nevertheless, local bodies and state and central Governments have recently shown a renewed interest in building new partnerships with private hospital chains. For instance, through a proper bidding procedure supervised with the help of an international consultancy firm, the Government of Delhi wishes to hand-over the management of two new tertiary care hospitals to private providers. New forms of contracts between the public and private sector like the Build-Operate-Transfer (BOT) and O&M contract are in discussion. In a context of stiff competition between hospital chains, and with clearly monitored and defined targets, such agreements could prove more successful in the delivery of hospital care.

A new generation of medical entrepreneurs is now rising from traditionally underserved regions such as Uttar Pradesh, Bihar and Northern Karnataka. New corporate hospital chains, like Vaatsalya in Karnataka, New Era Hospital in Uttar Pradesh and LifeSpring Hospitals aim to offer secondary care (i.e. maternal care) for a low price to poor segments of the Indian population. Emulating from previous experiences acquired by more up-market hospital chains, these newcomers hope to charge 30 – 50 percent less than market prices through economies of scale, standardized medical treatment and franchised facilities. These new hospital chains wish to build national networks of 20-30 beds hospital in rural, peri-urban and near slum areas. The high turn-over of patients shall balance the meager margin per medical act. It remains to be seen how these networks will be successful but these projects caught the attention of several investors. Hindustan Latex Limited, a state-owned company, is one of the two shareholders of LifeSpring Hospitals. Twenty-seven years after the 1982 National Health Policy, and after two decades marked by the misuse of public funds by some private hospital care providers, these new corporate hospital chains could probably help central and state governments in reaching the “health for all” goals.

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