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Narayana Hrudayalaya Heart Hospital: Cardiac Care for the Poor (B)

India will become the first country in the world to dissociate affluence from health care.
— Dr. Devi Shetty, Chairman, Narayana Hrudayalaya

By 2011, Narayana Hrudayalaya (NH) had grown to 12 locations across India and entered into non-cardiac specialties. Revenues grew from approximately $21 million in 2006 to $73 million in 2010, with a total equity base of approximately $104 million (see **Exhibit 1**). As the hospital grew, Dr. Shetty instituted a new management structure and appointed a Group CEO, Dr. Ashutosh Raghuvanshi, who had been at NH since its inception, to manage day-to-day operations (see **Exhibit 2**).

Meanwhile, the breakeven cost for adult open heart surgery (OHS) dropped from $2,000 in 2006 to $1,800 in 2011. The hospital increased the package price for adult OHS from $2,400 to $3,300 in the same period. It lowered the price for financially-constrained Karuna Hrudaya patients from $1,400 to $1,300, and increased the number of those treated through the Yeshasvini scheme at a subsidized $1,300, as well as those treated for free through the Trust, thereby retaining Dr. Shetty's core mission of compassionate care at affordable prices.

Running a cardiac hospital necessitated having access to non-cardiac specialists, including dentists, diabetologists, nephrologists and endocrinologists, and as the Bangalore heart hospital grew, management concluded that they could expand their affordable cardiac care model to include other illnesses, with little additional effort. Moreover, much of the equipment and facilities of the cardiac hospital, including catheterization laboratories, diagnostic machines, testing facilities and blood banks, could be shared across these other specialties, providing economies of scale.

By 2011, NH's Bangalore-based cardiac hospital had grown into a full-fledged multi-specialty "health city." Apart from the 900-bed heart hospital, its 25-acre campus housed a 1,400-bed cancer center; a 500-bed orthopedic and trauma hospital, the largest of its kind in India; a 300-bed eye hospital; an organ transplant institute; and departments in neurosurgery, neurology, pediatrics, nephrology, urology, gynecology, and gastroenterology. With approximately 3,100 beds, of which approximately 2,100 were staffed, NH's Bangalore hospital was comparable with the 3,200-bed Chris

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Professor Tarun Khanna and India Research Center Research Associate Tanya Bijlani prepared this case. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

Hani Baragwanath Hospital in Johannesburg, South Africa, considered the world's largest hospital, and the 2,200-bed Florida Hospital, the largest community hospital in the United States.[a,1]

NH replicated this multi-specialty health city model in the cities of Kolkata and Ahmedabad, and also began to build smaller 300-bed general hospitals, with a focus in cardiac care, in up to 250 smaller cities across India, with a goal to operate 30,000 beds in seven years. The expansion would make it comparable with the Hospital Corporation of America, the largest for-profit hospital chain in the United States, which operated approximately 31,000 beds across 140 hospitals.[2]

However, the cost of building a hospital was high, with $13 million considered a minimum capital requirement in India, and management at NH began to experiment with a low-cost model. In the city of Mysore, they worked with engineering firm Larsen and Toubro to build a hospital at a cost of $4 million. It would be a single-storied structure with thatched roofs, thereby minimizing the need for expensive fire safety systems and elevators. The layout would be designed to ensure natural lighting and ventilation, thereby minimizing the need for artificial lighting and air conditioning, except in operating theaters and intensive care units, where sterile environments were necessary.

Meanwhile, patients traveled to NH from across the world. By 2011, the hospital had treated patients from 73 countries, including approximately 51,000 from Bangladesh, for conditions ranging from cardiac care to bone marrow transplants. It had trained nurses to care for these patients, and hired translators with expertise in languages such as Arabic, Malay and Mandarin, in order to facilitate communications. Its tele-cardiology network was now the world's largest, having treated approximately 58,000 heart patients by August 20011, and was connected to more than 800 centers globally, including 53 African countries.

As NH grew, management decided to bring their business model to the developed world. "Those without access to health care in America may not be as poor as our poor, but they still have a serious problem," said Dr. Ashutosh Raghuvanshi, vice chairman and Group CEO of NH. They decided to base their first hospital in the Cayman Islands, a small nation about an hour's flight from Miami, Florida (see **Exhibit 3**). The first phase of the new business model would be a 150-bed tertiary care facility, to be built by March 2013, with plans to build up to 2,000 beds in 10 years. The hospital would offer procedures such as cardiac surgery, neurosurgery, orthopedic surgery, and cancer care, as well as secondary care procedures, at approximately 40% below U.S. prices.

Management spent a year working with the Cayman government to get a legal framework in place, which included ensuring that Indian degrees became recognized on the islands. They entered into talks with American insurance companies to treat patients for procedures that would otherwise be denied or delayed, and with large American corporations that were required to provide health care to their worker unions. In July 2011, NH was in the process of purchasing land for the hospital, and in conversations with financial institutions in the U.S., where NH felt that the costs of capital were low.

Meanwhile, the number of members enrolled in NH's Yeshasvini insurance scheme had doubled from approximately 1.5 million in 2006 to 3 million in 2011, making it one of the world's largest self-funded health insurance programs, providing cashless treatment in around 350 state-run hospitals across India. Its success had spawned government-sponsored insurance schemes in the states of Karnataka, Andhra Pradesh, Tamil Nadu and Himachal Pradesh, whereby below-poverty-line ration

[a] Approximately 400 beds of the 1,400-bed Mazumdar-Shaw Cancer Center were staffed.

card[b] holders in districts that were covered, could avail themselves of medical procedures free of charge.

To help fuel expansion at NH, management raised $89 million in February 2008 from investment bank American International Group Inc. and JP Morgan's private equity arm, in exchange for a 25% stake in the company. Dr. Raghuvanshi explained, "We wanted to have somebody who is well known and is an established financial investor because if you say that JP Morgan has invested in your company, it means something. We had apprehensions about whether the investment would change or impact our functioning, but both companies invested knowing fully what the mission was, and in spite of that mission, it made commercial sense for them."

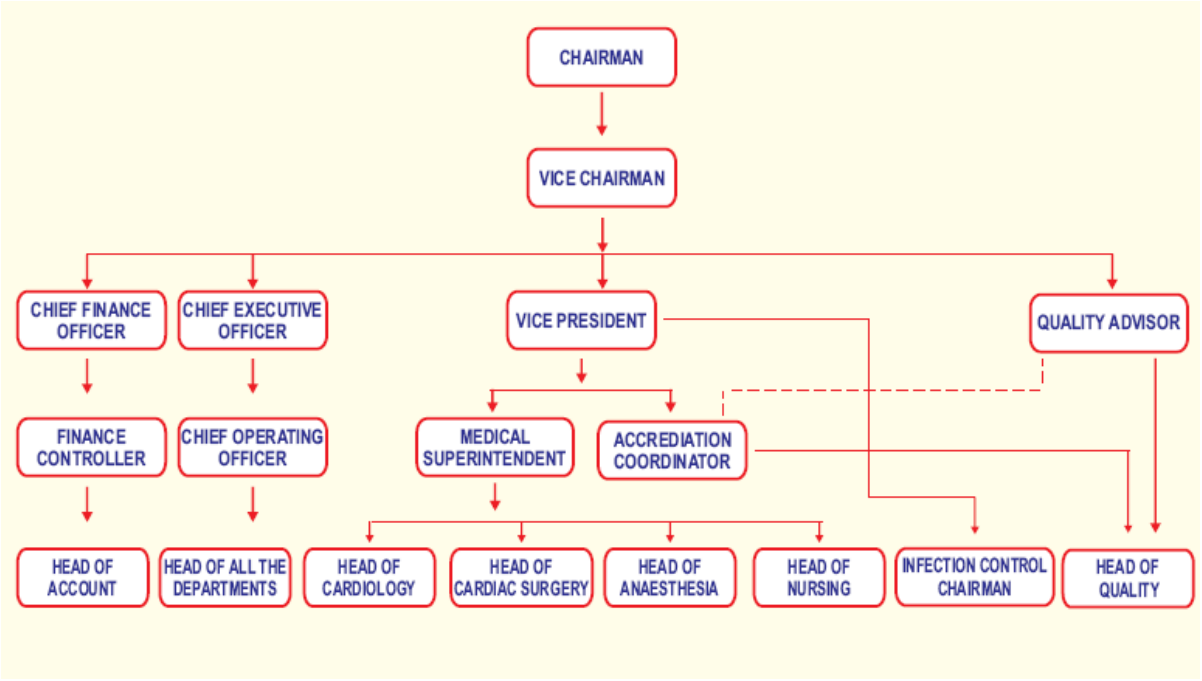
[b] A ration card was a document issued under the authority of the state government for the purchase of essential commodities.

Exhibit 1 Narayana Hrudayalaya Pvt. Ltd. Financials (audited, for year ending March 31, '000 US$)

	2005	2006	2007	2008	2009	2010
Profit and Loss Statement						
Income	$16,987	$20,925	$26,515	$39,923	$53,354	$72,741
Expenditure	$16,347	$18,734	$24,987	$37,122	$48,073	$62,581
Profit after tax	$446	$1,439	$1,010	$1,805	$3,862	$6,809
Balance Sheet						
Shareholder's funds	$1,481	$56	$2,844	$106,721	$84,057	$103,494
Fixed Assets	$6,320	$10,379	$15,586	$25,025	$67,307	$106,221
Current assets, loans and advances	$3,151	$4,640	$2,859	$16,675	$29,729	$29,958
Current liabilities and provisions	$3,676	$6,025	$5,678	$8,250	$20,678	$19,685

Source: Narayana Hrudayalaya.

Exhibit 2 Management Structure of Narayana Hrudayalaya



Source: Narayana Hrudayalaya.

Exhibit 3 Map of Cayman Islands

Source: ©2011 Google. Map data ©2011 Europa Technologies, Google, INEGI, LeadDog Consulting.

Endnotes

[1] Richard K. Miller and Associates, *The 2011 Healthcare Business Market Research Handbook*, February 18, 2011, p. 146.

[2] Ibid.