Richard Ivey School of Business
The University of Western Ontario

IVEY

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BUSINESS PROCESS OUTSOURCING AT APOLLO HEALTH STREET

R. Chandrasekhar wrote this case under the supervision of Christopher Williams to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

In April 2010, Sangita Reddy, managing director, Apollo Health Street (AHS), a healthcare business process outsourcing (BPO) company headquartered in Pennsylvania, in the United States, was facing two dilemmas.

The first issue pertained to growth in the short term. AHS had been growing at 80 per cent compound annual growth rate (CAGR) since 2005, aiming to reach sales revenues of $100 million for the year ending March 2010. The company wanted to achieve annual revenues of $500 million over the next three years, which would move it into the top three BPO companies in the healthcare sector (see Exhibit 1). AHS aspired to become a $1 billion company by 2014. This goal was seen as a milestone for AHS, which had been set up in 2000 and had become profitable only in 2008. The scale-up of the company's resources — in terms of employees, customers, markets, infrastructure and balance sheet — would not only reduce risk of failure, as Reddy saw it, but would also strengthen the company for further growth. How should AHS secure growth in the short term?

The second issue related to finding new ways to compete in an industry where the contours were fundamentally changing. Analysts predicted healthcare BPO to become unrecognizable from its present form over the next five to 10 years. The business-to-business (B2B) model would give way to a business-to-customer (B2C) model. Paper-based transactions would yield to electronic data. Batch-processing payment platforms would be replaced by real-time platforms. Silo-ridden relationships among various constituents of the industry would be replaced by collaboration and transparency. Reddy believed that although scaling-up would strengthen the company's position in the short term, the company needed to start looking for ways to stay relevant to the customer. How should AHS influence the shape of the healthcare BPO industry of the future? What new ways of competing could the company pursue?

TIPPING POINT

The trigger had come from a recent development in the United States, the world's largest outsourcing market. On March 23, 2010, the U.S. federal government had enacted the Patient Protection and

Affordable Care Act (PPACA), the culmination of the country's long-running debates over healthcare reform. One of the major provisions of the Act was a phased implementation, beginning in 2013, of the Electronic Health Records (EHRs), a system by which all medical records would be not only digitized but accessed freely by various participants in healthcare.

The healthcare industry had been characterized by a clear demarcation of lines separating patients (the end users), providers (the hospitals) and payers (the insurance firms). Each did not have free access to the full range of documentation held by the others. The industry was also characterized by a time lag among delivery of a service, point of billing and realization of receivables. The business of healthcare BPO was built on the premise of exploiting these inefficiencies. However, the free accessibility of medical records engendered by the new EHR system was expected to reduce the barriers between the different parties and make the interfaces more seamless.

Paradoxically, the immediate fallout of PPACA was to provide a boost to the business of healthcare BPO. The Act had forced both providers and payers to examine their costs very closely with a view to bring them down. PPACA was all about controlling costs. Outsourcing was thus seen by many as the only remaining option to reduce costs because the healthcare system in the United States had already eliminated, over time, most of the operational inefficiencies.

HEALTHCARE INDUSTRY

Healthcare was one of the largest and fastest growing sectors in which the governments of many countries, at both federal and state or provincial levels, were directly involved. In many countries, healthcare represented a major portion of subsidies incurred by the government and employers (see Exhibit 2). The global expenditure on healthcare as a percentage of gross domestic product (GDP) was 9.7 per cent in 2007, compared with 9.2 per cent in 2000.[1]

Globally, the healthcare industry consisted of four business segments: providers (clinics and hospitals), payers (insurance firms), pharmaceutical companies (manufacturers and marketers of drugs) and products and services (makers of medical equipment, pharmacy retailers, vendors such as AHS and diagnostic centers).

The services offered by the healthcare industry fell into three categories: primary healthcare (representing the first point of contact with the patient), secondary healthcare (where the patient met with a specialist after a reference from a general practitioner) and tertiary healthcare (involving hospital care). Primary healthcare was a crucial element of preventive healthcare. For instance, primary healthcare had the potential to reduce stroke rates by as much as 70 per cent.[2]

The industry was characterized by high barriers to entry. The reasons were three-fold: capital intensity of investment, regulatory intervention by government agencies and long gestation periods. The different segments of the healthcare industry frequently collaborated with each other.

The competition in the industry, however, was intense. Pharmaceutical companies vied with one another to be the first to discover a blockbuster drug. Providers tried to win on benchmarks, such as revenue per

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[1] *"World Health Statistics 2010," page 138 of 177, http://www.who.int/whosis/whostat/en/world_health_statistics_report_2010, accessed April 06, 2011.*

[2] *"Obesity, Heart Disease Now Major Developing World Problems, Report Says," available at http://sci.rutgers.edu/forum/showthread.php?t=1583, accessed February 5, 2011.*

bed per day (which was desired to be high) and average length of stay (which was desired to be low). Insurers battled over securing big-ticket accounts. Vendors tried to hold on to existing customers and attract new customers on price. The healthcare industry as a whole did not have substitutes although some segments within it did. Pharmaceutical companies, for example, faced threats from generic drug manufacturers when the patents on their brand-name drugs expired.

Healthcare providers were using information technology (IT) to reduce their costs and improve their performance. Exhibit 3 shows the ranking of global IT solution and BPO vendors in healthcare. These vendors were deploying new technologies not only for interfacing with customers but also in the use of medical equipment in diagnostics and treatment. Medical equipment was increasingly characterized by more software and less hardware. Life-saving medical devices, such as scanners, were becoming lightweight and portable. Healthcare providers were also reducing costs by focusing on their core competence — healthcare delivery — and outsourcing non-core activities to third-party providers.

The healthcare industry was characterized by the prevalence of standards and codes that enabled people from different organizations to speak a common language. For example, uniform bar codes were used on products shipped to hospitals. Diagnosis and procedure codes, known as International Classification of Diseases-10 (ICD-10), had a global compliance date of October 2013, replacing its previous version, ICD-9. Medical coding had facilitated the globalization of healthcare business. Service providers, in particular, were riding on the back of universal standards and codes to enter into new geographies and seek new clients.

The United States was the largest spender on healthcare at 16.2 per cent of the GDP in 2008. However, some segments and therapy areas lacked alignment. The quality care demanded by patients could not always be delivered because of controls put in place by payers. For example, providers had deemed several treatments necessary to ensure quality care but they could not offer these treatments because they were not covered by payers.

One of the metrics the healthcare industry was tracking was the "First Pass Rate," which was the rate at which insurance claims would be settled at their face value and payments would be made without seeking verifications and additional references. Disputing a claim was common among payers. The industry norm of First Pass Rate was 60 per cent. The higher the rate, the less the involvement of intermediaries.

A PricewaterhouseCoopers report pointed out that while two-thirds of the global health leaders surveyed thought the performance of their country's health system was good (or very good), less than 40 per cent gave their payment system a grade of good. The situation was similar, the report said, to owning a vehicle that was high-performing but was costing too much to maintain. The report pointed out that delivering a high-performing health system required a high-performing payment system.[3]

In the United States, more than 350 healthcare payer companies had combined annual revenues of $500 billion and combined annual IT spending of $13 billion.[4] According to estimates, in 2006, approximately 3.4 billion claims translated into approximately 1.1 billion payments. Nearly half of the 3.4 billion claims had been submitted by providers in non-standard format and approximately 65 per cent

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[3] *"Get What You Pay for: A Global Look at Balancing Demand, Quality, and Efficiency in Healthcare Payment Reform", available at www.pwc.com/us/en/healthcare/publications/you-get-what-you-pay-for.jhtml, accessed April 06, 2011.*

[4] *Madhu Pawar and Wayne E Pietraszek, "The New IT Landscape for Health Insurers," McKinsey Quarterly, August 2010, www.mckinseyquarerly.com.*

of the remittances had been paper-based.[5] The enactment of PPACA would bring 30 million new individuals into the insurance rolls in the United States.[6]

Healthcare facilities in the United States were largely owned and operated by the private sector. Health insurance was also primarily provided by the private sector, with the exception of programs such as Medicare (for seniors older than age 65) and Medicaid (for the poor), which were both run by the state.

The United States was the world leader in healthcare research and innovation. More than two-thirds of all Nobel laureates in medicine had worked in the United States; more than 80 per cent of venture capital in the global healthcare sector flowed to the United States. Health care services and technology were also more readily accessible to insured patients in the United States than anywhere else. Rising costs were the major drawback of U.S. healthcare.

BUSINESS PROCESS OUTSOURCING INDUSTRY

BPO had its origin in the late 1990s. The main characteristic of BPO was its large IT component, which gave it location flexibility. BPO, typically a combination of outsourcing and offshoring, involved the contracting of operations for specific business functions (processes) to a third-party service provider who took full responsibility for operations. BPO could be used for different types of functions, ranging from back-office outsourcing, comprising business functions (e.g., finance, accounting) to front-office outsourcing, comprising customer-related services such as call centres.

According to market research group Gartner, the global outsourcing industry represented revenues of $119 billion in 2000, and this was forecast to reach $234 billion by the end of 2005 and $310 billion by the end of 2008. Contribution from the North American continent stood at approximately 59 per cent of the total market, Europe comprised approximately 27 per cent and the Asia-Pacific region (including Japan) represented the remaining portion of the market.[7]

BPO had an unsettling effect on the domestic jobs situation in countries, such as the United States. Analysts predicted that 3.3 million service jobs would move from the United States to lower-cost countries by 2015.[8] However, advocates argued that BPO was opening up new prospects for firms around the world, helping them to remain competitive through international trade in services rather than traditional manufacturing.

HEALTHCARE BUSINESS PROCESS OUTSOURCING INDUSTRY

In addition to being the largest market for healthcare, the United States was also the largest market for healthcare BPO. Technology research firm IDC had forecast that BPO services in U.S. healthcare would reach $5.3 billion in 2012 at a CAGR of 14.6 per cent from its 2007 levels.[9]

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[5] *Celent, "Shifting Stakeholders and Change Agents in Healthcare Transaction Processing," August 22, 2007, http://www.celent.com/124_1071.htm, accessed January 17, 2011.*

[6] *Madhu Pawar and Wayne E Pietraszek, "The New IT Landscape for Health Insurers," McKinsey Quarterly, August 2010, www.mckinseyquarerly.com.*

[7] *"The Evolution of BPO in India," PricewaterhouseCoopers, April 2005, available at www.pwc.com/in/en/.../the-evolution-of-bpo-in-india.jhtml, accessed April 06, 2011.*

[8] *Diana Farrell, "Beyond Offshoring: Assess Your Company's Global Potential," Harvard Business Review, December 2004, pp. 1–11.*

[9] *Bijoy Anandoth Koyitty, "Cost Cutting in U.S. to Drive BPO Healthcare Business," Reuters, July 2, 2009, http://www.reuters.com/article/idUSTRE5613ZF20090702?pageNumber=2, accessed November 10, 2010.*

Healthcare professionals were fundamentally risk-averse. They were not accustomed to forfeiting control over operations because, to them, patient safety was paramount. Risk taking was not part of the DNA of healthcare industry — as it was in the financial services industry, which had given the initial impetus to BPO during the 1990s and 2000s. Healthcare was also a local business in terms of service delivery, particularly for a provider. Patients tended to be in a 30-km radius and employees in an 80-km radius of a healthcare provider.

The growth in global healthcare BPO could be traced to five reasons.

First, documents and processes that could be digitized could be outsourced. Digitized processes could be performed over large distances because of the advances in information and communications technology (ICT). Because back-office processes in the healthcare sector could be digitized, they could be performed in distant locations.

Second, providers and payers were under increasing pressure to reduce costs of operations, leading to regular appraisals, on their part, of their core and non-core activities. The latter included claims administration, supply chain logistics, finance and accounting, billing, human resources management and customer relations. They could all be outsourced, enabling providers to focus on what they excelled in — patient care.

Third, like the broader healthcare industry, the healthcare BPO industry was marked by the prevalence of standards and codes that had common acceptance, particularly in the use of digital solutions provided by companies such as GE Centricity, Cerner Power Chart, Siemens Medical Solutions, Philips Healthcare and Epic Care.

Fourth, many small healthcare providers had low margins of between two and three per cent of revenue. A slight dip in cash flow rendered them vulnerable to bankruptcy. Outsourcing could make the difference between survival and bankruptcy.

Fifth, a growing number of healthcare facilities in countries outside the United States had received accreditation from the Joint Commission International (JCI). Headquartered in Illinois, in the United States, and chartered as a non-profit organization, JCI had been working with healthcare organizations and ministries of health since 1984 to improve patient safety in 80 countries. The JCI's mandate was to provide accreditation to healthcare organizations after conducting due diligence of their internal processes. Over the years, a JCI certification had become a coveted stamp of quality for a healthcare facility, generating in turn a positive frame of mind in the healthcare industry regarding outsourcing to unfamiliar vendors.

In 2010, an additional factor was at play in the United States. The U.S. government required healthcare providers to meet various efficiency requirements, as part of making funding available in 2011 from its Troubled Assets Relief Program (TARP). BPO offered a way to secure some of those efficiencies.

The passage of the PPACA in March 2010 by the U.S. government was a turning point for healthcare BPO. In the short run, it provided a fillip to BPO because of its emphasis on reducing systemic costs and improving transactional efficiencies. In the long run, it posed a threat to BPO's future. The boundaries delineating various segments of the healthcare industry, which had given rise to healthcare BPO, would gradually disappear by the end of the decade because of the imminent arrival of EHRs.

Business acquisitions were common in healthcare BPO. Numerous motivations contributed to one BPO acquiring another: to achieve economies of scale and thereby reduce unit costs, to gain a foothold in an unfamiliar geography, to fill gaps in service offerings, to strengthen an existing portfolio and to develop new skill sets.

COMPANY BACKGROUND – APOLLO GROUP

The Apollo group was founded in 1983 by Dr. Prathap C. Reddy, a cardiac surgeon who had spent many years working in the United States. The first Apollo hospital, with 150 beds, opened in Chennai, in southern India. The group had since grown to a 50-hospital, 7,600-bed chain to become the largest in India and one of the largest in Asia. Seven of its hospitals had received accreditation by JCI.

Apollo had sales revenue of INR20.26 billion (US$458.99 million) for the year ending March 2010, an increase of a little more than 25 per cent over 2009 (see Exhibit 4). The nearest competitor in India, Fortis Healthcare Ltd., had sales revenues of $212.45 million for the year ending March 2010 and had grown at 49 per cent over 2009.

Apollo (also known as Apollo Health Enterprises Ltd., or AHEL), was based in Hyderabad, in southern India. The company was an integrated enterprise, covering every touch point in the Indian healthcare value chain (see Exhibit 5). It was the largest player in the tertiary care segment covering Tier 1 cities of India. It operated in a niche segment of multi-specialty (or super specialty) hospitals treating lifestyle ailments related to cardiology, oncology, orthopedics and neurology that required sophisticated medical equipment and involved complex surgical procedures. Within the spectrum of healthcare offerings, cardiac care provided, worldwide, the highest returns.

The group was also tapping a new market — medical tourism. AHEL had become a preferred destination for patients from the developed world because of its higher success rates, quality of service, process quality (as authenticated by JCI accreditations) and relatively low cost of procedures. Of late, AHEL had been targeting mid-sized U.S. companies to encourage them to outsource the medical treatment of their employees at AHEL's hospitals in India. Typically, a U.S. company with 1,000 employees could cut its healthcare costs by half a million dollars every year by outsourcing treatment options for its employees to India. The cost of a bypass surgery in a U.S. hospital, for example, was anywhere between $70,000 and 133,000, whereas, in India, this same procedure would cost $7,000.

The strategy of AHEL was aimed at increasing inpatient volumes, improving occupancy, securing higher asset utilization and penetrating under-represented segments of Indian healthcare (such as oncology, pediatrics and women's healthcare). The group was regularly increasing its average revenue per occupied bed (ARPOB) per day over the years by transitioning to higher-value-added services and through the pricing power it enjoyed over its peers.

AHEL had finalized an expansion plan to boost revenue growth. It would add more than 2,500 beds by 2014 from an investment of INR15 billion. AHEL was not only adding capacity in large cities (such as Chennai, Mumbai and Hyderabad) but also creating new capacity in smaller cities (such as Nellore and Trichy). It was expanding into Tier 2 (comprising major cities other than large metropolises) and Tier 3 cities (comprising district headquarters) of India as part of a low-cost model of healthcare it had developed, called Reach.

The group had developed several competitive advantages, which it could utilize both domestically and globally. It had brand equity. It was de-risking its business with partnerships wherever possible. It had a succession plan in place, centered on the founder's family and a strong second line of management led by professionals.

CRISIL Research had estimated that the Indian healthcare industry was set to grow at CAGR of approximately 11.3 per cent over the next 10 years and to become an industry with revenues of INR 4.95 trillion by 2018. India had a shortage of healthcare infrastructure. The country needed to set up an additional 810,000 hospital beds at an investment of INR2.1 trillion by 2018. AHEL was well positioned to tap this opportunity.[10]

APOLLO HEALTH STREET

In 2000, just after the dot-com bubble had burst, AHEL started to consider diversifying into BPO. The outsourcing phenomenon had already taken off among IT firms in India and elsewhere, in countries such as the Philippines. BPO had spurred a discussion among the top management of AHEL on the way forward for the group. AHEL management generally agreed that the company should stick to its core business of providing healthcare through its network of hospitals in India. The group would remain India-centric in terms of its core offering and cater only to domestic demand because Indian healthcare had enough growth opportunities that could be mined for many years.

AHEL management identified three possible competencies that could be leveraged: domain enterprise in health care, proprietary technology platforms in IT, and tried-and-tested process protocols. AHEL could build a new global business within healthcare, not only around these competencies but through a convergence of all of them. The brainstorming generated the idea of a healthcare BPO division that was to become Apollo Health Street (AHS).

AHS was set up in 2000 in Pennsylvania as a subsidiary to provide revenue cycle management solutions to providers and payers in the U.S. healthcare industry. Its BPO solutions were designed to improve process efficiencies, enhance quality and cut costs for its clients (see Exhibit 5). By 2005, AHS had secured annual revenues of $5 million through offices in various locations in the United States and the back office at Hyderabad, India. By 2010, 25 per cent of its staff, numbering a total of approximately 3,000, were located in the United States while the rest were employed in India. Exhibit 6 shows the company profitability from 2008/2009 to 2009/2010.

By the end of 2007, AHS had made three acquisitions in the United States: Armanti Financial, a New Jersey–based hospital billing and receivables management entity, in August 2006; Heritage Websolutions, a Utah-based company that provided back-end IT development and support services, in September 2006; and Zavata, an Atlanta-based healthcare revenue cycle outsourcing solutions provider, in August 2007.

AHS had planned an initial public offering (IPO) in early 2008 to raise INR1,600 million toward pre-payment of debt incurred from the acquisitions. But, AHS had to keep the plan on hold due to unfavorable market conditions at the time. It had taken on private equity investors — such as One Equity Partners of the United States and Temasek Holdings of Singapore — to finance growth and acquisition plans. The group holding at AHS stood at 39.5 per cent by 2010. During the same year, the revenue of AHS had

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[10] CRISIL Research Report on AHEL dated September 22, 2009 page 7 of 28, available at http://banker.thomsonib.com.proxy2.lib.uwo.ca:2048/ta/?ExpressCode=%20uwontario, accessed April 06, 2011.

jumped to $100 million — a CAGR of 80 per cent per annum. It had also set up its first India-based back office near Chennai with a 3,000-seat capacity from an investment of $20 million.

AHS processed more than two million claims every month.[11] It was on track to become the world's largest pure-play healthcare outsourcing company. AHS faced no competitors of comparable size that offered both IT and BPO for healthcare across providers and payers. Its main proposition for a potential customer was that it could deliver, within 60 to 90 days, a positive return on investment (RoI), in terms of both reduction in costs and improvement in operational performance.

The BPO business was based on the premise that transactional processes of a company did not need to happen at the company's own site but could be conducted thousands of miles away in geographies, such as India, which could ensure low operational costs. AHS had taken that basic premise to the next level in healthcare BPO by setting up what it called Centres of Excellence (CoE) in different locations, both within and outside India. The CoEs were part of a competency that AHS had built up over the years, which it called the Global Delivery Model.

AHS had six CoEs: two in New Jersey and one each in Florida, California, Hyderabad and Chennai. One of the New Jersey CoEs dealt with work related to federally approved programs for poor and elderly patients. The other New Jersey CoE specialized in patient calling, as did the CoEs in Florida and California. These three CoEs employed local staff who understood local nuances of language and culture to deal with matters involving first point of contact for local patients in the United States. AHS ensured that as part of providing a level of comfort to the patients, calls requiring first point of contact from a hospital were made from a call centre based in the United States and not from a call centre based in India. The CoE in Hyderabad specialized in following up on accounts receivables (which was a voice transaction), while the CoE in Chennai focused on billing (which was a non-voice transaction).

AHS owned the CoEs fully, unlike many of its peers who were outsourcing various components of their customer offerings, in turn, to smaller players in the outsourcing universe. A captive model of global delivery, which was unique to AHS, ensured quality control.

ISSUES BEFORE SANGITA REDDY IN APRIL 2010

Reddy had to find a way forward on two issues.

The first issue pertained to securing scale in the short term. The company was targeting annual revenues of $500 million over the next three years and wanted to become a $1 billion company by 2014. AHS had taken a stance that scale would not be the main driver for acquisition. It would examine issues such as whether any gaps in the product/service portfolio needed to be filled; whether an opportunity was available to tap into new competencies and new skill sets that would add value to the company; and whether the time required for entering a new geography would be crunched. How should AHS secure growth in the short term?

The second issue for Reddy was to find new ways to compete in the changing healthcare BPO industry. AHS had to work within the context of improvements in the First Pass Rate, which were imminent. The efficiencies in the system would increase the First Pass Rate to approximately 75 per cent. The system was unlikely to reach 100 per cent efficiency. Thus, 25 per cent of the volume of business would be

[11] *Apollo Health Street, "Claims Administration," http://www.apollohealthstreet.com/claims-administration.php, accessed January 20, 2010.*

available to intermediaries. AHS had introduced outsourcing in an industry that was fundamentally risk-averse. One of the ways in which the healthcare industry would be reshaped would be by healthcare providers themselves setting up captive offshore units in places such as India. Such a move would require scale, meaning that only the very large providers in the United States — such as Hospital Corporation of America (AHC) and Tenet Healthcare Corporation — would likely be able to play this game. How should AHS influence the shape of the healthcare BPO industry of the future? What new ways of competing could the company pursue?

Exhibit 1

TOP HEALTHCARE BUSINESS PROCESS OUTSOURCING COMPANIES

#	Company	Country	Year Established	2010 (in US$millions)	
				Revenue	EBITDA
1	McKesson	USA	–	2,439	1,457
2	MedAssets	USA	1999	400	128
3	Accretive Health	USA	2003	350	–
4	AthenaHealth	USA	1997	245	–
5	Apollo Health Street	USA	2000	112	12

Note: EBIDTA = earnings before interest, taxes, depreciation and amortization

Source: McKesson Annual Report for 2010 pertaining to Technology Solutions segment, pp. 29, 31, available at http://www.mckesson.com/en_us/McKesson.com/Investors/Financial%2BInformation/Annual%2BReports.html, accessed April 06, 2011; and company estimates.

Exhibit 2

GLOBAL HEALTHCARE – KEY MARKETS

	Canada	France	Germany	Japan	United Kingdom	United States
How are people insured?	•Universal health coverage for all legal residents •It doesn't depend on ability to pay for basic health care	•95% are covered by a national health insurance scheme	•Health insurance is mandatory •Everyone receives health insurance regardless of individual health risk or income	•Mandatory health insurance, either an employer-based insurance program or the National Health Insurance program	•Universal and comprehensive coverage provided by the National Health Service • It is free at the point of use	•A patchwork of private and public health insurers •Linked to a person's age and employment status •Payment is required at the point of use
How is healthcare financed?	•Tax revenue	•Tax revenue •Contributions shared by employers and employees	•Contributions by employers and employees, subject to a cap of 14% of wages	•Contributions by employers and employees, averaging 4% of salary	•Tax revenue	•Tax revenue •Contributions by employers and employees
Who decides what is covered?	The federal government sets the parameters but provinces decide on benefits coverage	The government decides and sets the co-pay amounts	The legislature (Bundestag and Bundesrat)	A special committee in the Ministry of Health, Welfare and Labour	The National Institute for Health and Clinical Excellence (NICE)	Different entities in the public and private sector. on the basis of individual insurance
What makes it different?	•Doctors are independent workers	–	•Decentralized system of healthcare delivery	•Freedom to choose hospitals and health care providers	–	–
What is the singular area of concern?	•Long wait times	•Rising costs	•Rising costs	• Long wait times	•Rising costs	•Rising costs
What is the general level of customer satisfaction?	• High	•High	•Medium	•Medium	•High	•Low

Sources: "25 Best Global Healthcare Rankings," October 31, 2010, www.mphdegree.org/2010/25-best-global-healthcare-rankings accessed January 13, 2011.

Exhibit 3

RANKING OF GLOBAL HEALTHCARE VENDORS OF INFORMATION TECHNOLOGY SOLUTIONS AND BUSINESS PROCESS OUTSOURCING

#	Company	Country	Number of Employees	Revenues (in US$millions)		
				2008	2007	2006
1	McKesson Technology Solutions	USA	15,700	2,984	2,239	1,844
2	Cerner Corporation	USA	7,500	1,676	1,520	1,378
3	CSC	USA	6,000	1,640	1,366	1,190
4	Agfa HealthCare	Belgium	5,000	1,583	1,850	1,880
5	Siemens Medical Solutions	Germany	3,529	1,400	–	–
6	Perot Systems	USA	10,000	1,304	1,342	1,107
7	GE Healthcare	UK	–	1,000	–	–
8	Philips Healthcare	USA	–	732	356	–
9	Allscripts-Misys	USA	2,500	695	282	228
10	Cognizant	USA	12,000	688	508	331
11	Epic Systems	USA	3,400	602	503	422
12	Eclipsys	USA	2,500	516	478	427
13	3M Healthcare Systems	USA	950	413	400	288
14	Medical Info. Tech	USA	2,700	397	376	345
15	Nuance Communications	USA	700	379	282	137
16	Extreme Networks	USA	35	362	343	359
17	SAIC	USA	1,900	347	342	319
18	Wipro Technologies	USA	6,444	345	254	121
19	MedQuist	USA	6,150	326	340	358
20	Telus Health Solutions	Canada	1,100	305	149	113
21	MedAssets Inc.	USA	1,700	279	188	188
22	Sage	USA	1,400	273	300	–
23	Intersystems Corp.	USA	800	226	195	160
24	SAS	USA	100	205	173	169
25	HealthPort Inc.	USA	3,840	200	150	100
26	Keane Inc.	USA	400	187	189	175
27	NextGen Healthcare	USA	600	186	157	119
28	Spheris	USA	550	182	200	207
29	Kronos	USA	3,000	179	159	156
30	QuadraMed	USA	610	150	137	125
31	Athenahealth	USA	846	139	101	76
32	PHNS	USA	1,776	128	112	92
33	CareTech Solutions	USA	830	125	115	113
34	Med3000	USA	1,600	121	118	47
34	Picis	USA	636	120	115	67
36	CPSI	USA	886	119	110	116
37	**Apollo Health Street**	**USA**	**2,500**	**110**	**62**	**24**
38	SCC Soft Computer	USA	1,550	87	76	62
39	eClinicalWorks	USA	750	86	64	38
40	NEC Unified Solutions	USA	30	83	105	91

Source: http://www.healthcare-informatics.com/archives/ hcl_100_listing_June_2008, accessed April 06, 2011.

Exhibit 4

APOLLO HEALTH ENTERPRISES LTD. CONSOLIDATED INCOME STATEMENT

(in INR millions)	2010	2009	2008
Income from operations	19,207	15,311	11,531
Add : Share of joint ventures	1,058	831	632
Add : Other Income	322	208	253
Total income	20,587	16,350	12,416
Less:			
-Operative expenses	10,726	8,728	6,530
-Employee costs	3,308	2,594	1,944
-Administrative and other costs	3,218	2,545	1,831
-Financial expenses	602	459	382
-Preliminary expenses	1	2	15
-Deferred revenue expenditure	6	5	7
Total expenses	17,861	14,333	10,709
Less:			
-Depreciation	749	632	516
Surplus in profit and loss account	399	594	532
Number of employees	21,080	19,088	15,927

Note: The data do not include the four subsidiaries of AHEL – Apollo Health Street, Apollo Health & Lifestyle, Apollo Munich Health Insurance and Indraprastha Medical Corporation.

Source: AHEL Annual Reports 2009/10 and 2008/09; Equity Research Report of Wright Investors' Service dated November 26, 2010, page 8 of 42, available at http://banker.thomsonib.com.proxy2.lib.uwo.ca:2048/ta/?ExpressCode=%20uwontario accessed April 06, 2011

Exhibit 5

APOLLO HEALTH STREET SERVICE OFFERINGS

#	Service Offering	Description	Key Features	Service Deliverables
Services for Healthcare Providers				
1	Full Revenue Outsourcing	• Leverages the domain expertise of Apollo Health Enterprises Ltd. in healthcare built over 30 years • Enhances day-to-day resource productivity of the provider	• Work flow improvements • Credit analysis • Collections • Quick ramp-up to positive cash flow	• Pre-registration •Medicaid eligibility and patient advocacy •Management reporting
2	Focused Outsourcing Solutions	• Diagnose and fix processes affecting cash collections • Work on the more labor-intensive elements.	•Minimal ramp-up time •Highly-trained, customer service specialists	•Customer service •Emergency Medical Services billing and follow-up •Self-pay outsourcing
3	Third-Party Solutions	• Increases cash collections • Reduces days in accounts receivables	• Root cause analysis	• Cash recovery • Workers' compensation liability resolution
4	Denial Management	• Uses proprietary software to interpret denial information • Prepares compelling appeal packages for review by the payer	• Easily exportable reports • Timely workflow tracking • Pre-implementation assessment	• Denial assessment •Root cause analysis •Clinical and technical appeals • Process re-engineering
5	Zero-Balance Recovery	• Focuses on claims with insurance balances that are at zero. •Uses proprietary platform	• Low-risk, high-reward outcome •Low execution time and quick results •Minimal use of client's information technology	• Payer reimbursement review •Underpayments on adjudicated accounts identification
6	Private Pay Solutions	•Targets uninsured patients of Medicaid •On-site financial counseling, casework completion and field service assistance	• Uses each patient's financial and social indicators to determine proper workflows	• Self-pay billing • Medicaid and patient advocacy • Dedicated customer service management
8	Patient Access Partnership	• Reviews patient data, demographics and other data that can impede the revenue cycle	• Error identification long before the first bill is raised	• Patient demographics validated by external databases • Hospital's information system updated
9	Emergency Medical Services (EMS) Billing	•Emergency Medical Services solutions ensures billing of every 911 call	• Customized development and installation of EMS processes	• Electronic file transfer from hand-held devices • Medical coding
10	Coding for Reimbursement Solutions	• Coding services for hospitals, medical practices and freestanding surgical centers	• Certified coding teams with experience in specialty areas	• Backlog support • Documentation training • Flexible pricing models
11	Transaction Service Solutions	• Range from the most basic double-key data entry work to the most sophisticated electronic transaction processes	• Remote desktop with VPN (Virtual Private Network) tunnels to send and receive secure, accurate transactions	• Professional medical coding •Billing transactions • Lock box management and cash posting

Exhibit 5 (continued)

Services for Physicians				
1	Full Business Office	•Tailored to individual practice	• Coding, billing, insurance follow-up, and self-pay collections • Smart technology implementation	
2	Patient Access Services	• Pre-Registration and Registration •Financial Counseling/Medicaid Eligibility Services	• Making clean claims the first time • Generating weekly scorecards to ensure staff accountability	
3	Patient Accounting Services	•Billing Services • Accounts Receivable follow-up	• Face-to-face contact to gain patients' trust and cooperation	
4	Physician Consulting Services	•Enrollment assistance, training and implementation •Business office support		
Services for Healthcare Payers				
1	Provider Data Management	•Maintains provider contract terms in re-pricing and claims systems for preferred provider organizations	•Tailored services to customer needs	
2	Claims administration	• Processes more than 2 million claims a month	• Solutions for high volume •Turnaround time of 12 hours or less	
3	Eligibility Maintenance	•Mass or individual updates from spreadsheet formats	•Image storage and retrieval capabilities	
4	Plan Maintenance	•Handling benefit designs by benefit code and revenue code	• Customized methodologies	
5	Front-end Data Capture	•Mail room services from state-of-the-art secure facility		
6	Customer Service	• Call center interactions		
Information Technology Support				
1	Development and maintenance			
2	Quality Assurance			

Sources: www.apollohealthstreet.com/hospital _services; www.apollohealthstreet.com/physician_ services; www.apollohealthstreet.com/payer_ services; www.apollohealthstreet.com/IT_and_Support, accessed January 10, 2011.

Exhibit 6

APOLLO HEALTH STREET PROFITABILITY

(in INR millions)	2009/10	2008/09
Revenue	4,577	4,994
EBITDA	511	849
Margin (%)	11.2	17.0
Profit after tax	83	147

Note: EBIDTA = earnings before interest, taxes, depreciation and amortization

Source: Edelweiss Securities Ltd., India Equity Research Report, October 12, 2010, page 27.