

Preliminary Syllabus & Course Schedule

Course Title:	HCMG 890401: Innovation in India's Healthcare Sector	
Instructor:	Robert Burns, Ph.D., MBA, Chair – Health Care Management Department, Wharton School	
Teaching Assistants:	Sarah Frew, Ph.D. Bhuvan Srinivasan, MSE	Vimala Raghavendran, MA Aditi Sen, Ph.d. candidate
Time:	January 05 to 08, 2011 – ISB (Hyderabad)	
Credit:	Pass/Fail course – 0.5 Units	

Course Overview

This course will analyze several innovative and emerging sectors of the health care industry in India. These include: pharmaceuticals, biotechnology, medical devices and equipment, outsourced provider and industry services, hospitals, health insurance, and medical tourism. The course will examine the role of domestic and foreign investment in these sectors, the role of corporate chain ownership and strategic alliances in fostering such investments, the growth in demand for these products and services, the potential for public-private sector collaboration, the competitive challenges facing these sectors, and the social/cultural/demographic/economic context in which these sectors are developing. Contextual issues to be considered include manpower and training, public sector infrastructure, and public health.

The course will include a combination of lectures, case studies, and presentations by executives and industry experts. Analytic frameworks of healthcare system development and new product innovation will be used to analyze the prospects for success of emerging firms in India. The course will also contrast the growing healthcare sectors in India with those developing in China, as well as the more mature sectors found in the U.S., where a substantial experience and evidence base has been amassed.

The course will meet over a period of four days at the Indian School of Business (ISB) in Hyderabad. Students will come from both Wharton and ISB. The course will provide an opportunity for team-based projects for students across the two schools.

The course is divided into eight sections, most of them dealing with specific sectors in the Indian health care system. The logic of the course is to present an overview of each sector, identifying the trends and issues facing managers and providers in that sector, to be followed by an illustrative case and then a presentation by an executive from a representative firm in that sector. This format is designed to provide a quick immersion to each sector through a multidisciplinary approach (lecture, case, executive presentation).

Students will write one paper after the course's completion to receive credit. Students may follow either of the following options in writing their paper:

- Write a paper on some firm or sector of the Indian health care industry, focusing on key environmental and competitive challenges faced by that sector, and the strategies pursued to deal with them. This can be done either individually or as a team.
- Write an update to one of the cases in the course, based on more recent industry data, executive interviews, etc. The update should cover what has happened since the case was written, what strategies were pursued, what success was achieved, what new directions were undertaken, etc. This can be done either individually or as a team. Our goal is to have student papers and projects contribute to teaching materials and cases for future course offerings.

Teams should be anywhere from 3-5 students. Papers should be roughly 10-15 pages in length, double-spaced. Papers are due by **February 07, 2011**.

Course Sessions and Schedule:

Session Date & Time	Topics and Sessions Description
Tuesday, 04 Jan 2011	
7:00 PM	Course Reception for Wharton and ISB Students
Wednesday, 05 Jan 2011	
9:00 AM – 12:00 PM	<p>I. Course Overview & Introduction</p> <p>A. Analytic Framework for Health Care System Development</p> <ol style="list-style-type: none"> 1. Policy levers: finance, payment, delivery systems, regulations 2. Intermediate outcomes: access, quality, cost (The Iron Triangle) 3. Ultimate ends: health status, financial risk protection, consumer satisfaction 4. The Health Care Quadrilemma 5. The Health Care Value Chain <p>B. Comparative Analysis of Emerging Health Care Sectors & Contrast with the West</p> <ol style="list-style-type: none"> 1. India and U.S. 2. India and China <p>C. Overview of India's Health Care System</p> <ol style="list-style-type: none"> 1. Major transitions and issues 2. India's demographics 3. Systems of medicine 4. Low but rising income levels 5. Rising demand for health care

	<ul style="list-style-type: none"> 6. Health care financing 7. Technological and organizational innovation 8. Structure of health care delivery 9. Primary and hospital care 10. Government's role and regulation 11. Health care reform <p>D. Readings:</p> <ul style="list-style-type: none"> 1. Yip & Mahal, "The Health Care Systems of China and India: Performance and Future Challenges." Health Affairs (2008) 2. Deolalikar et.al., "Financing Health Improvements In India" Health Affairs (2008) 3. Healthcare in India: Emerging Market Report 2007, PricewaterhouseCoopers
<p>1:30 PM - 4:30 PM</p>	<p>II. Balancing Access and Innovation in India</p> <ul style="list-style-type: none"> A. Brief Review of Healthcare Financing and Access Issues in India B. Access to Medical Products and Technologies in India <ul style="list-style-type: none"> 1. Challenges, Impediments and Opportunities 2. Role of Infrastructure, Regulatory and Healthcare Delivery Systems 3. Dynamic Competition and Market Variety of Products <ul style="list-style-type: none"> a. Availability, Choice and Effective Access C. Segmentation in Healthcare Care Financing, Appropriate Technologies and Access D. Future Opportunities in Scalable and Sustainable Innovation in India <p>III. Innovations in Health Care Delivery (A): Medical Tourism and Single Specialty Hospitals</p> <ul style="list-style-type: none"> A. Competition: India vs. Thailand B. Segments to target: medical, CAM, cosmetic C. Countries to target D. Complementary improvements needed to support tourism E. Role of single specialty hospitals in medical tourism (e.g., Aravind Eye Hospital, Shankar Nethralaya, Asian heart Hospital) F. Case: <ul style="list-style-type: none"> 1. MedVal Ventures (HBS, N1-308-087) G. Speaker: <ul style="list-style-type: none"> 1. Dr. Devi Shetty, Founder – Narayana Hrudayalaya (Video Conference)
<p>Thursday, 06 Jan 2011</p>	
<p>9:00 AM –</p>	<p>IV. Innovations in Health Care Delivery (B): Hospitals and Health System</p>

<p>12:00 PM</p>	<p>A. Hospitals and hospital systems: private vs. public hospitals, technological collaborations with US hospitals, scale economies, etc.</p> <p>B. Pathology labs: e.g., comparison of hospital based labs and independent labs, ability to offer home services, etc.</p> <p>C. Procedure and post-procedural costs (e.g., comparison of Indian hospitals vs. other countries in high cost areas: radiology, MRI, certain surgeries etc.)</p> <p>D. Case(s):</p> <ol style="list-style-type: none"> 1. Apollo Hospitals – First-World Health Care at Emerging Market Prices (HBS 9-706- 440) 2. Fortis Healthcare (A) (HBS 9-308-030) <p>E. Speakers:</p> <ol style="list-style-type: none"> 1. Shivinder Singh - Fortis India 2. Preetha Reddy – MD, Apollo Hospitals
<p>1:30 PM – 5:30 PM</p>	<p>Field Excursion to Visit Indian Healthcare Providers:</p> <ol style="list-style-type: none"> 1. Specialty hospital 2. Rural primary care clinic
<p>Friday, 07 Jan 2011</p>	
<p>9:00 AM – 12:00 PM</p>	<p>V. Life Science Firms: Pharmaceutical Sector</p> <p>A. The rise of the Indian Pharmaceutical Industry</p> <p>B. Pharmaceutical Value Chain from a product focus in the Indian context</p> <p>C. Market: Domestic Market overview and International markets (focus on US generics)</p> <p>D. Domestic Infrastructure: Capabilities and Resources</p> <p>E. Key Trends and Drivers of growth</p> <p>F. Policy: Regulatory Affairs and Intellectual Property</p> <p>G. Top Indian Pharma cos</p> <p>H. Key Opportunities in the near future</p> <p>I. Market Access to expensive life-saving drugs: Demand Elasticity and Pricing</p> <ol style="list-style-type: none"> 1. 2 Mini Case Studies of Biosimilar genericization <p>J. Readings:</p> <ol style="list-style-type: none"> 1. The Indian Pharmaceutical Market Outlook (Read Executive summary, skim rest) 2. Top 10 Indian Pharma companies (Focus on SWOT analyses for top companies, skim rest) <p>K. Optional readings:</p> <ol style="list-style-type: none"> 1. India Product Patent Protection (incremental innovation not rewarded by Indian patent system) 2. Drug Discovery in India & Partnering with Global

	<p>companies_Business week</p> <p>3. Pharmaceutical Innovation in India</p> <p>L. Case: Dr. Reddy's Laboratories Limited (LBS, CS-03-020)</p>
<p>1:30 PM – 4:30 PM</p>	<p>VI. Life Science Firms: Biotechnology Sector</p> <p>A. Government regulations and initiatives: Federal and state</p> <p>B. The biotech value chain in India: R&D services, contract manufacturing, biosimilars (branded), NBE development</p> <p>C. Biotech firms moving up the value chain</p> <p>D. Domestic financial infrastructure</p> <p>E. Public-private partnerships</p> <p>F. Affordable innovation: expanding market share (domestic & international impact)</p> <p>G. Readings:</p> <p>1. Frew et.al “India’s Health Biotech Sector at a Crossroads” Nature Biotechnology (2007)</p> <p>H. Case: Biocon Ltd. HBS 9-107-083</p> <p>I. Speaker: Dr. Varaprasad Reddy, CEO, Shantha Biotechnics</p>
<p>8:00 PM</p>	<p>Dinner with Keynote Speaker: CEO</p>
<p>Saturday, 08 Jan 2011</p>	
<p>9:00 AM - 12:00 PM</p>	<p>VII. Providing Health Care to the Bottom/Middle of the Pyramid</p> <p>A. Public health and sanitation</p> <p>B. Limited access due to lack of insurance</p> <p>C. Urban vs. rural healthcare delivery</p> <p>D. Nearly 70% of India’s population resides in rural areas</p> <p>E. Poor access to healthcare compared to the urban areas</p> <p>F. Role of nonprofit organizations and charities</p> <p>G. Low-cost examples of healthcare delivery</p> <p>H. IT capability and scope to deliver innovative healthcare solutions in rural India</p> <p>I. Business potential</p> <p>J. Readings:</p> <p>1. Sengupta and Sinha “Battling AIDS in India” McKinsey Quarterly Interview</p> <p>2. Karamchandani et. al. “Market Based Solutions to the challenges of Global Poverty” Monitor Group (2009)</p> <p>K. Case: The Aravind Eye Hospital, Madurai, India: In Service for Sight HBS 9-593-098</p>

	<p>L. Speakers:</p> <ol style="list-style-type: none"> 1. Ashok Alexander - Avahan India AIDS Initiative 2. Varun Sahni – Acumen
<p>12:00 PM – 1:30 PM</p>	<p>LUNCH BREAK</p>
<p>1:30 PM – 4:00 PM</p>	<p>VIII. The Health Insurance Industry</p> <ol style="list-style-type: none"> A. Supply & demand for health insurance B. Growth of health insurance in India C. Health insurance 101 D. Structure and function of health insurers E. Health insurance market in India F. Market segmentation approaches G. Third party administrators (TPAs) H. Hospitals and insurers co-sponsor plans I. Stakeholders and market perceptions of insurers <p>J. Readings:</p> <ol style="list-style-type: none"> 1. “Health Insurance Inc.:The Road Ahead” Health Insurance Summit (2008) <p>K. Case (Webcafe):</p> <ol style="list-style-type: none"> 1. A Rapid Evaluation of the Rajiv Aarogyasri Community Health Insurance Scheme - Andhra Pradesh
<p>4:00 PM – 4:30 PM</p>	<p>BREAK</p>
<p>4:30 PM – 6:30 PM</p>	<p>IX. Major Challenges and Opportunities for innovation</p> <ol style="list-style-type: none"> A. Intellectual property and technological progress B. Affordability of patented drugs in India C. Opportunities for healthcare IT (HCIT) and telemedicine D. Opportunities for medical device & equipment manufacturers E. Lack of a single regulatory body F. Impact of chronic illness (e.g., diabetes) on healthcare system G. Impact of infectious disease (malaria, tuberculosis) H. Challenges for venture capital/startups <p>I. Readings:</p> <ol style="list-style-type: none"> 1. Private Equity Pulse on Healthcare and Lifesciences; Venture Intelligence (2009) 2. Preventing CHRONIC DISEASES a vital investment; WHO Report (2005)

	<p>J. Speakers:</p>
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1. Zeena Johar - IKP Center for Technology in Public Health
2. Deepanwita Chattopadhyay – CEO, ICICI Knowledge Park