# **BUS 452 - Spring 2012**

# **Health Care Operations and Technology Management**

Tuesdays and Thursdays: 1 p.m. – 2:15 p.m. (room 204)

**Professor**: Dr. Diwas Singh KC

**Office**: GBS 404 **Phone**: (404) 727 1424

Email: diwas kc@bus.emory.edu

**Office Hours**: Thursdays: 5:15 – 6:15 PM (or by appointment)

ISOM Area Administrative Assistant: Jalisa Norton, Room 423, 404-727-8698

#### **Course Description**

In the US, the health care sector accounts for 17.3% of the gross domestic product. Already the largest sector of the economy, health care continues to experience significant growth. Health care organizations face numerous challenges, including rising costs, increasing complexity and quality issues, all while confronting an increase in demand for limited resources. At the same time, the health care marketplace has led to an array of innovative new products and services. Given the unprecedented pressure to improve efficiency and quality, there is thus a tremendous opportunity for health care organizations around the world, large and small, to better manage their operations.

In this course, we will apply management tools to examine the health care value chain. Specifically, we will learn to analyze health care organizations using qualitative as well as quantitative principles of operations management, and develop solutions to problems that are commonly encountered. We will also evaluate innovative new models of healthcare delivery. The course is organized around four key modules: (1) designing health care delivery systems, (2) capacity planning and decision making under uncertainty, (3) process failure, learning and improvement, and (4) innovations in health care.

#### **Course Structure**

Students will learn from case discussions, lectures, problem solving, in-class exercises, and guest speakers from the healthcare industry. Case settings involve the key stakeholders in the healthcare industry, viz., hospitals and clinics, pharmaceutical companies, medical device manufacturers, regulatory agencies, and doctors and patients. We will also be using Littlefield Labs, an award winning simulation game, to supplement our understanding of decision making under uncertainty. Finally, students form teams to work on a "real-world" semester-long project. No prior exposure to the health care industry or coursework is assumed.

# **Course Meetings and Communication**

Please refer to the course schedule for meetings that are outside of regular class sessions, which were arranged to accommodate the schedules for the guest speakers. These are not optional events. Full attendance during these sessions will be expected.

FirstClass (email and the course conference) will be used as the primary means of communication and coordination outside of class.

# **Learning Objectives**

The key objective of the course is to apply new product and service innovations as well as principles from operations management towards improving the healthcare value chain. By formulating qualitative and quantitative solutions to problems commonly encountered by healthcare organizations, students not only sharpen their analytical and problem solving skills, but also gain insights into the inner workings of firms in healthcare. Examples of general purpose tools draw on process analysis, decision making under uncertainty, capacity planning, portfolio selection, technology adoption and usage, and organizational learning and quality improvement. The course also exposes students to the key stakeholders in the healthcare industry including hospitals and clinics, physicians, as well as medical devices and pharmaceutical companies.

## **Target Audience**

The course prepares students for several career paths, including consulting, operations management, technology management (e.g. IT, pharmaceutical, medical devices, regulatory agencies), and health care administration (e.g. hospitals and clinics, insurance). In addition, students seeking domain level exposure to the healthcare sector and insights into the inner workings of the various stakeholders in the industry will find the course helpful.

#### **Required Course Material**

There is no required textbook. All of the required materials including cases, articles, and the computer simulation game license codes are provided in a course pack, which is available for purchase and immediate download on study.net. The course pack is available at <a href="http://www.study.net/r\_mat.asp?crs\_id=30019283">http://www.study.net/r\_mat.asp?crs\_id=30019283</a>. Supplemental readings may be distributed in class or posted on FirstClass.

## **Grading Policy and Class Design**

The course grade will be determined as follows:

Class Participation	30%
Two Written Case Analyses	20%
Littlefield Lab Assignment	10%
Project	40%

Team grades for the assignments and projects will be adjusted for individual participation. Peer evaluations from team members will be taken very seriously. It is critical that all members of a team "pull their own weight."

#### **Class Participation**

This is a case-based course, which relies heavily on class participation. Every student in the class is expected to have read the cases carefully, and seriously addressed the assigned study questions, which are listed in the detailed course outline. These questions are designed to provide a structured approach to tackling the case. However, any additional novel insights that students bring to the classroom discussion will be greatly appreciated.

Active class participation is expected throughout the semester. I will judge class participation on the level of preparedness for the case discussions, the depth and thoughtfulness of your comments, and the degree to which you listen carefully and respond to your peers. You are encouraged to take risks in offering novel points of view in the class discussions. Frequency of class participation is NOT the key criterion. Rather, quality of your input will be the overriding factor. I will also cold call, particularly individuals from whom the class has not heard from in awhile. It is your responsibility to raise your hand, or to come and see me if you want me to call on you more.

You are required to attend all sessions, including the guest lectures. Please let me know in advance if you will miss a class or will be delayed. If you miss a class, find out from your classmate what has been covered and what you may have missed. If you are unprepared for a class let me know before class begins. To help me master names and identify relevant experience in the classroom, please bring a copy of your resume to the second class.

#### **Written Case Analyses**

Each case analysis team should consist of 4 students. Before the beginning of February 1<sup>st</sup>, email me your team composition. Your case team may be different from your final project team. The two written case analyses are "Genentech" (session 8) and "Pharmacy Improvement at CVS" (session 14). To ensure fairness, I do not provide hints or guidance for written case analyses to individual teams.

The written case analyses are due at the beginning of the session when we discuss these cases. Please limit the analyses to 4 pages, double spaced, with 1-inch margins, 12-point font, using Times New Roman font. Print your report double-sided.

Your analyses should be clear, concise and complete. The report should address the assigned questions in the detailed course outline. You are encouraged to offer additional insights. Specifically, the following guidelines may be helpful:

- Show relationships among the important factors in the situation
- Identify fundamental causes of problems
- State and justify your assumptions explicitly
- Describe the criteria that was used to generate the recommendations
- Show clearly how your plan of action follows your analysis

Exhibits may be used to support the key points in your analyses. Any calculations and numbers used in your analyses should be explained clearly.

## **Littlefield Labs Assignment**

You should work on the Littlefield Labs assignment with your case team. The Littlefield Labs assignment will be handed out at the end of session 7 (February 8<sup>th</sup>). The assignment is due Feb 17<sup>th</sup> (session 10).

#### **Project**

Groups consisting of 4 students will be required to work on a project over the course of the semester. The objective is to allow you to research an organization, a sector of the industry, or a specific area of interest to you. Please email me a short project proposal of 1 page or less at the beginning of by

**February 8**, along with a list of project team members. The project proposal should articulate a clearly stated research objective. Project teams need not be the same as the case analyses teams. Each team will be responsible for project report document and a final presentation during the last week of class. Finally, each student in the class will be required to provide an evaluation of the final projects presented by the other teams at the end of the course.

Projects can fall into one of the following categories:

- <u>1. Industry / Organizational Profile</u>: This would involve describing an industry. In particular, the emphasis should be on the primary economic issues in the industry that impact operations. Please provide both a strategic-level and operational-level view, linking the operational decisions with the strategic decisions. The project could also focus on a single organization. You should describe the key service/product concept, the competitive positioning, and operational characteristics. An analysis of the key operational challenges would also be useful.
- <u>2. Specific Operational Issues for an Industry or Organization</u>: This would involve selecting a single operational problem in a given industry or organization and focus on it in more depth.
- <u>3. Service Diagnosis</u>: You would select a problem currently encountered by a firm, and would involve obtaining operational data on current service processes and problems. Using concepts and methods developed in the course, you would then diagnose the problem and offer a solution.

Additional project details will be made available during the course.

#### **Other Issues**

Students are bound by the honor code as set forth in the University's policies. Any violations of the honor code will be seriously pursued. If you are unsure of this policy or need clarification, please take the time to talk to me.

Finally, I strongly discourage the use of laptops or other electronic devices during class, particularly given that active class participation is expected during the semester. Paper-based note taking should be sufficient for the case-based material covered in this class. I am happy to point to research that demonstrates the negative impact of multi-tasking on productivity, attention and quality of work.

#### Acknowledgement

Professors Michael Lapre and Christian Terwiesch provided helpful suggestions in the development of this course.

# **BUS 652–Spring 2011 – Class Sessions**

Session #	Date	Topics and Readings	Deliverable
1	Tue, 01/18	Course Introduction  Read: Fixing Health Care on the Front Lines  Skim: The Challenge Facing the U.S. Healthcare Delivery  System	
2	Th, 01/20	Asset Oriented Process  Case: Instituto Clinico Humanitas  Skim: Hospitals Get Serious About Operations	Due: Resumes
3	Tue, 01/25	Disease Oriented Process  Case: Intermountain  Skim: Complexity and Error in Medicine	
4	Th, 01/27	Focused Process  Case: Shouldice Hospital	
5	Tue, 02/1	Process Analysis: Flow Case: Paediatric Orthopaedic Clinic Read: A Note on Managing Process Flows	<b>Due</b> : Case Write-up Teams
6	Th, 02/3	Hospital Service Design  Guests: Joseph John and Brent Bizwell	
7	Tue, 02/8	Process Analysis: Queuing  Case: University Health Services: Walk-In Clinic	Due: Project Proposals and Teams Handed out: Littlefield Labs
8	Th, 02/10	Decision Making: Capacity Planning  Case: Genentech – Capacity Planning	<b>Due</b> : Genentech Case Write-up
9	Tue, 02/15	Mix of Product Line  Case: Managing Orthopaedics at Rittenhouse Skim: The Effect of Focus on Performance	
10	Th, 02/17	Decision Making: R&D Portfolio Optimization  Case: Vertex Pharmaceuticals: R&D Portfolio Management  Skim: Investment Opportunities as Real Options (Luehrman 1998)	Due: Littlefield Labs
11	Th, 02/17 6:30-7:45 PM *	Drug Discovery at Emory  Guest: Mike Natchus, PhD (EMBA '10)  *** Note: This is an evening session. There are two sessions today ***	
12	Tue, 03/15	Problem Solving  Case: Patient Flow at Brigham and Women's Hospital  Skim: Why hospitals don't learn from failures	
13	Th, 03/17	Toyota Production System  Case: Virginia Mason Medical Center  Skim: Fixing Health Care from the Inside, Today (Spear 2005)  Skim: The Checklist (Gawande 2007)	

		Skim: Decoding the DNA of the Toyota Production System	
14	Tue, 03/22	Service Improvement	Due: CVS Case Write-
		Case: Pharmacy Improvement at CVS	up
		Skim: Zero defections: Quality comes to services	
15	Th, 03/24	Quality Improvements at a Hospital System	
		Guest: Dr Rick Gitomer, MD (EMBA '00)	
16	Tue, 03/29	Adventures in Implementing Health Care Technologies	
		Guest: Daniel Gallik (EMBA '05)	
17	Th, 03/31	Innovation in Healthcare	
		Case: Heartport, Inc.	
18	Tue, 04/5	Connectivity	
		Case: Global Healthcare Exchange Canada	
19	Th, 04/7	Health Care Information Technology	
		Case: When Hackers Turn to Blackmail	
		Case: Too Far Ahead of the IT Curve	
20	Tue, 04/12	Adventures in Health Care Management	
		Guest: Jeff Booth (MBA '94)	
21	Th, 04/14	Redesign of Health Delivery	
		Case: QuickMedx, Inc.	
22	Tue, 04/19	In-class Presentations	Due: Project
		First Set of Groups	Presentations
23	Th, 04/21	In-class Presentations	Due: Project
		Second Set of Groups	Presentations

<sup>\*</sup> All class sessions meet in the regularly scheduled classroom (GBS 234) unless otherwise noted.

# **BUS 652: Detailed Session Descriptions**

# **Module 1: Introduction**

#### **Session 1: Introduction**

Tuesday, January 18

This session will cover the course syllabus and provide a brief overview of the health care industry

*Read:* Fixing Health Care on the Front Lines, HBR (Bohmer 2010)

Skim: The Challenge Facing the U.S. Healthcare Delivery System (HBS 9-606-096)

# **Module 2: Designing Services**

#### **Session 2: Asset Oriented Process**

Thursday, January 20

This session will examine the asset focused approach to managing care, and understand the design and management of a system to optimize the utilization of high fixed cost assets of a care delivery system. We will also consider the role of incentives in modifying physician performance.

Due: Copy of Resume

Case: Istituto Clinico Humanitas (A) (HBS 9-603-063)

- How well is Istituto Clinico Humanitas performing?
- How do they realize this level of performance?
- Why doesn't everyone do this?
- Should Istituto Clinico Humanitas affiliate with the University of Milan?

Skim: Hospitals Get Serious About Operations (Mango and Shapiro 2001)

#### **Session 3: Disease Oriented Process**

Tuesday, January 25

The disease focused approach contrasts with the asset focused approach. In this session we will understand the disease focused approach to organizing health care delivery and the organizational structure and policies required to develop and improve the process of care.

Case: Intermountain Health Care (HBS 9-603-066)

- How well is Intermountain Health Care performing?
- What is Intermountain's approach to the management of health care delivery?
- Why does Intermountain do it this way?
- Why don't all health care delivery organizations to this?

Skim: Complexity and Error in Medicine (HBS 9-699-024)

#### **Session 4: The Focused Factory**

Thursday, January 27

In this session, we will examine the benefits that can accrue from specialization in providing a service aimed at a relatively narrow market segment and produced in a highly focused factory.

Case: Shouldice Hospital Limited (Abridged) (HBS 9-805-002)

- How successful is the Shouldice Hospital?
- How do you account for its performance?
- As Dr. Shouldice, what actions, if any, would you take to expand the hospital's capacity?
- How would you implement changes you propose?

# **Module 3: Capacity Planning and Decision Making under Uncertainty**

#### **Session 5: Process Analysis: Flow**

Tuesday, February 1

In this session, we will map out the process flow for the Paediatric Orthopaedic Clinic at the Children's Hospital of Western Ontario, and identify capacity constraints.

**Due**: Case Write-up Teams

Case: Paediatric Orthopaedic Clinic at the Children's Hospital of Western Ontario (Ivey 908D01)

- What is the utilization at every step in the process?
- What is the direct labor utilization?
- How is variability affecting capacity at the clinic? How can variability be controlled?
- Where is the bottleneck in the process? What are the capacity constraints at the clinic?
- What is the economic cost of wait times?
- What recommendations would you make and why?

Read: A Note on Managing Process Flows (Darden Business Publishing UV0427)

## **Session 6: Stories in Hospital Service Design**

Thursday, February 3

Joseph John and Brent Bizwell, from Emory Healthcare will speak about the role of service design in the overall strategy of Emory Healthcare. NOTE: This session is part of Module 2, but scheduled after session 6 to accommodate the availability of the guest speaker.

#### **Session 7: Process Analysis: Queuing**

Tuesday, February 8

Hospitals face all kinds of variability. Patients have varying and unpredictable needs, and the inflow of patients varies by time of day and day of week. Consequently, the capacity utilization varies significant. Worse, hospitals face impatient customers: patients typically cannot wait but often need to be seen by specific physicians. How can one make correct process and capacity decisions in this environment/ In this case, we share the deep wisdom of Operations Management with friends at Harvard's University Health Services.

**Due**: Project Proposals and Teams

Case: University Health Services: Walk-In Clinic (HBS 9-681-061)

- Evaluate the performance of the Walk-In Clinic. Are waiting times now acceptable?
- Why are "walk-in appointments" a problem? What should Ms. Angell do about them, if anything?
- What other actions, if any, would you recommend to Ms. Angell?

Handed out: Littlefield Labs Assignment (due Feb 17)

#### **Session 8: Capacity Planning**

Thursday, February 10

Capacity planning is about making decisions under uncertainty. In this session, we discuss the manufacturing process for drugs and see how Genentech can make accurate capacity planning decisions in light of R&D, regulatory and manufacturing uncertainty. The emphasis is on the decision tools and the manufacturing process rather than the regulatory environment.

**Due**: Case write-up for *Genentech – Capacity Planning* 

*Case: Genentech – Capacity Planning* (HBS 9-606-052)

- What is your evaluation of Genentech's production capacity requirements given expected demand in 2010 and 2015 for Avastin and Genentech's other products as per Exhibit 3? Does your evaluation change if Genentech wants to cover the 85<sup>th</sup>-percentile of demand? (See spreadsheet posted on FirstClass)
- Assuming Genentech decides to proceed with CCP3, what size production lines (tank sizes) would you recommend? Why? What criteria should Ebersman use in selecting a location? Why? Should Ebersman move forward with CCP3 now? (If not, when?)
- What recommendations would you make to Ebersman regarding the process he and his team should use in deciding how best to meet the demands for Avastin?
- A contract manufacturing firm has had an unexpected reduction in demand for a drug it produces. It is now offering to devote four 10,000 liter lines to the production of Avastin at a price similar to Genentech's existing contract manufacturing agreements. How should Ebersman respond?

## *For the assignment questions, assume the following:*

- a) Each of the two contract manufacturers can devote two 10,000 liter tank lines to Genentech production, and Genentech hopes they will achieve yields similar to those at Genetech's own plants. These tanks will be fully utilized in the production of Rituxan and Herceptin.
- b) Industry experts make demand forecasts for drugs like Avastin, but a number of sources of uncertainty—yet to be determined dosage amounts and treatment regimens, unexpected problems in the FDA's approval process, unexpected success or failure of a competitor's product, and unexpectedly large or small consumer uptake—means that real demand will depart from the experts' forecasts. For purposes of our case discussion, assume that future demand is distributed normally, centered around the experts' forecasts, and with variation such that one standard deviation is about 25 percent of the expected demand. For example, if expected demand is 100 kg per year, the 85<sup>th</sup> percentile demand (about one standard deviation above the expected demand) would be 125 kg per year.

#### **Session 9: Mix of Products**

Tuesday, February 15

This case will examine the dilemma facing Neela Wilson, Executive Director of Rittenhouse Medical Center (RMC), related to competing surgeons in the RMC Department of Orthopaedics.

Case: Managing Orthopaedics at Rittenhouse Medical Center (HBS 9-607-152)

- What is your assessment of the 3B Orthopaedics model relative to that used for typical procedures performed by the faculty practice surgeons? Which is better? What are the key criteria for your assessment?
- What are the possible sources of conflict between the two models of care? How might they be reduced?
- Should Neela Wilson accede to Dr. Booth's request? If not, how should she respond?

*Skim:* The Effect of Focus on Performance: Evidence from California Hospitals (Kc and Terwiesch 2010). Skim Introduction and the Conclusion sections. Reading the whole paper is entirely optional.

#### Session 10: R&D Portfolio Optimization

Thursday, February 17

A pharmaceuticals company has to screen thousands of compounds through years of testing and regulatory approval before a successful drug may emerge. We evaluate the associated risks for Vertex Pharmaceuticals using a Real Options approach to valuing opportunities.

Due: Littlefields Lab Assignment

Case: Vertex Pharmaceuticals: R&D Portfolio Management (A) (HBS 9-604-101)

- Which of the project portfolio options currently facing Vertex do you favor? Specifically, which two projects would you advance in development? Would you license out the others not chosen or keep them as back-up?
- What criteria would you use to make the decision? What other information, if any, do you think Boger needs to make his decision?
- What approach should be used to make a decision like this? How much should Vertex management rely on quantitative methodologies (such as real option valuation) versus more qualitative approaches? How should companies value investments in projects like these, which entail an extremely high degree of uncertainty? What management process should be used?

Skim: Investment Opportunities as Real Options: Getting Started on the Numbers, HBR

#### **Session 11: Drug Discovery at Emory**

Thursday, February 17

Mike Natchus, PhD, EMBA '10 is a Principal Scientist and Director of Operations at the Emory Institute for Drug Discovery. He is a key author on thirty patent applications, and has 18 years of experience in medicinal chemistry within the pharmaceutical industry and has held positions of increasing responsibility in both drug discovery and development. Mike will speak to us about his experiences with various start-ups and particularly about the R&D portfolio challenges in drug development. **NOTE**: This session runs from 6:30-7:45 PM today. Class session on Tuesday, February 22<sup>nd</sup> moved to this time in order to accommodate schedule for guest speaker.

# **Module 4: Failure, Learning and Improvement**

# **Session 12: Problem Solving**

Tuesday, March 15

In this session, we examine how organizations identify problems, and describe circumstances under which only a subset of the problems eventually generate viable solutions.

Case: Patient Flow at Brigham and Women's Hospital (A) (HBS 9-608-171)

- Why do you think that several people didn't follow the official procedure for requesting ICU beds that day? Do you think this is a big problem? Why or why not?
- In Exhibit 5, analyze the chain of e-mails including Dr. Rogers' original email. What do these emails show about Brigham and Women's Hospital's organizational climate for learning from mistakes? As Chief Medical Officer for the hospital, how would you respond o the situation?
- What would you recommend that the hospital do to improve patient flow to the ICUs?

Skim: "Why hospitals don't learn from failures: Organizational and psychological dynamics that inhibit system change", California Management Review (2003)

# **Session 13: Toyota Production System**

Thursday, March 17

In this session, we will examine the adoption of the Toyota Production System at the Virginia Mason hospital in Seattle, and discuss the challenges and lessons learned.

Case: Virginia Mason Medical Center (Abridged) (HBS 9-610-055)

- What is Gary Kaplan trying to achieve at Virginia Mason?
- How does the Toyota Production System fit into his strategy?
- What is your view of the "people are not cars" debate?
- Is Kaplan's approach transferable to other US hospitals?

Skim: The Checklist (A. Gawande, The New Yorker, December 2007)

Skim: Decoding the DNA of the Toyota Production System (Spear and Bowen 1999)

Skim: Fixing Health Care from the Inside, Today (Spear 2005)

# **Session 14: Service Improvement**

Tuesday, March 22

In 2002, CVS assembled a team of operations executives and managers for its Pharmacy Service Initiative (PSI). Although CVS was one of America's largest retail drugstores, problems in the company's prescription fulfillment process had caused significant customer defection, hampering the company's grown. We will examine the success (or lack thereof) of PSI in streamlining the fulfillment process.

**Due**: Case write-up for *Pharmacy Service Improvement at CVS* 

Case: Pharmacy Service Improvement at CVS (A) (HBS 9-606-015)

- What percent of pharmacy defectors from CVS in 2000 were light versus heavy users?
- Does PSI represent a significant opportunity for CVS? Would improving customer service be of significant financial benefit to the company?

- What changes do you recommend to CVS's existing pharmacy fulfillment process? What IT changes, if any, are required to implement your changes?
- How can you be sure that the new process you propose will be an improvement over the existing one? How can you be sure that it won't make things *worse*?
- What groups, if any, are likely to have problems with your proposed solution? How will you deal with their objections?
- How will you ensure that there's no backsliding—that there won't still be wooden boxes in use six months from now? How can technology be used to prevent or inhibit backsliding?

Skim: "Zero defections: Quality comes to services", HBR

# Session 15: Quality Improvement at Emory Healthcare

Thursday, March 24

Richard S. Gitomer, MD, FACP (EMBA '10) is Chief Quality Officer at Emory University Hospital. He will speak to us about his experiences with leading a significant quality improvement initiative at Emory Healthcare, and with the launch of a new service at Emory Midtown.

# **Module 5: Innovations and Frontiers in Health Care**

#### **Session 16: Innovation in Health Care**

Tuesday, March 29

Dan Gallik (EMBA '05) is a healthcare consultant, currently focusing on two areas of healthcare – environmental services, and adoption of new technology innovations. He has over 15 years of experience with J&J and will talk to us about the adoption of innovation in cardiac care

## **Session 17: Implementing Health Care Technologies**

Thursday, March 31

We will discuss the process of innovation, as well as the adoption of innovation in healthcare. Specifically, we consider the development of a novel approach to minimally invasive cardiac surgery and examine the challenges associated with mass adoption of this procedure.

Case: Heartport, Inc. (HBS 9-600-020)

- What do you think of the underlying innovation?
- What has Heartport done to date? Why?
- What does the adoption process look like?
- How should Heartport define success?

Tuesday, April 5

# **Session 18: Connectivity in Health Care**

This session examines the challenges faced by Global Healthcare Exchange Canada (GHXC), which was a leading open and neutral web-based health-care exchange in Canada. GHXC connected hospitals, suppliers, distributors, GPOs and other trading partners in order to automate the purchasing process and improve efficiencies in the Canadian health-care industry. Specifically, this case explores the barriers that had to be overcome for GHXC to meet its adoption targets.

Case: Global Healthcare Exchange Canada: Trade Exchange Adoption (Ivey 902A23)

- What are the key success factors of an exchange such as GHXC?
- What is the value proposition of GHSC for: a) hospitals b) suppliers? Is it compelling enough to drive adoption?

- How can Sung communicate this value proposition in a compelling way to potential exchange participants? How can GHXC simplify the value proposition messaging?
- What should Sung do to drive adoption of the trade exchange platform? Are there any incentives that he should be considering?

# **Session 19: Information Technology**

Thursday, April 7

In this session, we will evaluate the role of IT in transforming healthcare delivery. In the two short cases assigned for this session, we will consider electronic medical health records (EMHR), as well as enterprise IT in healthcare. We will also examine the pitfalls of IT adoption, and the factors necessary to make IT implementation successful.

Case: When Hackers turn to Blackmail (HBR case study)

• How should Sunnylake deal with the attack?

Case: Too Far Ahead of the IT Curve (HBR case study)

• How should Peachtree try to fix its IT infrastructure problem?

## **Session 20: Adventures in Health Care Management**

Tuesday, April 12

Guest: Jeff Booth (MBA '94) is a partner at PricewaterhouseCoopers, which recruits regularly at Emory. Jeff is affiliated with the Health Industries Advisory at PWC will speak to us about his experiences in healthcare consulting, and challenges/opportunities for healthcare managers.

#### **Session 21: New Models of Service Delivery**

Thursday, April 14

QuickMedx, Inc. has created a chain of small kiosks, located in grocery stores and shopping malls in the Minneapolis, Minnesota area that cater to patients with a limited range of very simple primary care conditions. Service is rapid and cheap, and patients wait only a few minutes to be seen. This is a popular service, yet after two years of operation QuickMedx is still unprofitable. The case opens in February 2002 as the company is considering strategies for expansion.

Case: QuickMedx Inc. (HBS 9-603-049)

- What is the QuickMedx business model?
- Is it viable?
- How should QuickMedx grow?
- Is QuickMedx a "disruptive" innovation?

# **Module 6: Project Presentations**

#### **Session 22: Final Presentations - First Set of Groups**

Tuesday, April 19

The first set of groups will present today. Each group has 15 minutes for the presentation, followed by 5 minutes of questions and answers.

**Due**: Project Presentations

#### **Session 23: Final Presentations - Second Set of Groups**

Thursday, April 21

The second set of groups will present today. Each group has 15 minutes for the presentation, followed by 5 minutes of questions and answers.

**Due**: Project Presentations