



# **Fundamentals of Healthcare Business**

**MANA 7312**

**Fall 2025 Wed 6:00-9:00 PM**

2025 v 8.0

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## **Course Objectives**

1. Understand the components of the United States healthcare system and the challenges it is facing.
2. Appreciate the healthcare system's efforts to increase value by increasing quality and access and decreasing cost.
3. Consider the role of organizational behavior, cost accounting, operations, innovation, technology, data analysis, regulation and strategy on healthcare improvement.

## **Course Description**

The healthcare system in the United States is massive, complex, and dysfunctional. This course will serve: 1) students interested in an introduction to leading healthcare organizations; 2) students who want a better understanding of the US healthcare system; and 3) students more generally interested in operational and strategic decision making in a complex industry. No healthcare background is assumed or necessary.

We will describe the providers and the financial system that comprise healthcare, and the challenges healthcare faces. Next, we will turn to important opportunities for healthcare leaders to alter the current value equation by improving quality and access while decreasing cost. Finally, we will explore how changes in organizational behavior, cost accounting operations, innovation, technology, data analysis, regulation and strategy can improve healthcare.

## **Required Textbooks**

The U.S. Healthcare Ecosystem – Payers, Providers, Producers, 2nd or 3<sup>rd</sup> edition, Lawton Robert Burns. The 3<sup>rd</sup> edition is a bit more current, but not available in an e-format. The 2<sup>nd</sup> edition is a bit less expensive. Either will work for this course. The chapters are the same in both editions.

The Core Elements of Value in Healthcare, Paveljit S. Bindra

## **Course Packet**

The course packet contains all the cases and articles that will be assigned during the course. It is available for purchase on the Harvard Business Publishing website at:

<https://hbsp.harvard.edu/import/1310175>

## **Course Structure**

Our class will meet for 14 weeks on Wednesday evenings. Check the Sessions section below to make sure you are prepared for case discussions and to make sure that all assignments are turned in timely. Attendance at all class meetings is required. If an emergency prevents you from attending class, please do your best to advise me (by text or email) of your upcoming absence prior to our class meeting.

## **Zoom Room for Weekly Meetings**

My Zoom room number is 779 642 4334. If you have any difficulty connecting, please text me on my cell at 281-798-7463.

## **Office Hours**

I will be online Mondays between 1900-2000. I can be available weekdays and weekends to meet with you individually. Please simply email me to arrange a date and time. I will make my best efforts to respond to email within 24 hours.

## **Grading**

The final grade for this class depends on the following five components.

### 1. Homework Problems – 20% of Grade

Individual project. There will be a Homework problem for each Module. Please complete each homework assignment, maximum two pages, double spaced, using Times New Roman 11 font, and submit as a pdf on Canvas. Include the title of the homework, your name, and your student ID number at the top of the page. You do not need to repeat the questions asked, just indicate the subpart you are answering by use of 1., 2., etc. Please see the schedule for Homework due dates. Please refer to the Homework Assignments, Appendix B, for specifics.

### 2. Value Case Memos – 40% of Grade

Group project. You will be assigned a Memo for a Value Case in a healthcare system. The Value Case Memo assignments can be found in the Discussion Questions at the end of each assigned chapter in the Value textbook. The assignment for your Memos is found in Appendix C, below. To be clear, you will use the fact pattern from the Value Case from the textbook, but will write a memo answering the questions posed in Appendix C of this syllabus. Answering the questions in an outline format is fully acceptable. The Memos for each Value Case should be a maximum of three pages, double spaced, using Times New Roman 11 font, not including any appendices. You do not need to repeat the questions asked. The Value Case name, your names and your student ID numbers should appear at the top of the first page. Only one member of the group should submit the paper for the group. Submit as a pdf on Canvas. Please see schedule for due dates.

### 3. Key Case Questions – 40% of Grade

Individual project. You will be responsible for answering questions based on the Key Case assigned each module. The answers to the Key Case Questions should be a maximum of five pages, double spaced, using Times New Roman 11 font, not including any appendices. You do not need to repeat the questions asked, just indicate the subpart you are answering by use of 1., 2., etc. The case name, your name and your student ID number should appear at the top of the first page. Submit as a pdf on Canvas. Please see schedule for due dates. Please see Appendix D for details.

### 5. Class Participation – Bonus

I will use participation during our weekly sessions as a potential curve. Please note that I will frequently call on you for your input or opinions, so be prepared. Video cameras must be kept turned on during class. Please review Appendix A for details.

### **Webcams**

Access to a webcam is required for students participating remotely in this course. Webcams must be turned on (video unmuted) during all live course meetings to enable our discussions.

### **Syllabus Changes**

Please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible.

### **Synchronous Online Courses**

This course is being offered in the synchronous online format. Synchronous online class meetings will take place according to the class schedule. In between synchronous class meetings, there may also be asynchronous activities to complete (e.g., discussion forums and assignments). An alternative assessment will be used in the place of the traditional final exam at the course conclusion. Instructions will be provided, including the date and time that the assessment materials will be released to the class and will be due, resources and collaborations that are allowed and disallowed in the process of completing the assessment, procedures to follow if connectivity or other resource obstacles are encountered during the assessment period, acceptable submission formats, and submission location.

### **Professor Evaluation**

The C.T. Bauer College of Business has a policy for its instructors to be evaluated by students to provide feedback on how their teaching performance can be improved. I strongly encourage you to participate in the evaluation process. I am available throughout the course to receive any informal input. I rely on your input to improve the class each time I teach.

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## **University Policies and Student Support Resources**

### **Mental Health and Wellness Resources**

The University of Houston has a number of resources to support students' mental health and overall wellness, including CoogsCARE and the UH Go App. UH Counseling and Psychological Services (CAPS) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off-campus. For assistance visit [uh.edu/caps](http://uh.edu/caps), call 713-743-5454, or visit a Let's Talk location in-person or virtually. Let's Talk are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

Need Support Now? If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at 713-743-5454, or the National Suicide and Crisis Lifeline: call or text 988, or chat [988lifeline.org](http://988lifeline.org).

### **Title IX/Sexual Misconduct**

Per the UHS Sexual Misconduct Policy, your instructor is a "responsible employee" for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office (known at UH as the Equal Opportunity Services office or "EOS"). Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the UH Title IX/Sexual Misconduct Resources page. Please note that you may also report concerns of discrimination based on your protected class identity to EOS.

### **Reasonable Academic Adjustments/Auxiliary Aids**

The University of Houston is committed to providing an academic environment and educational programs that are accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the Justin Dart, Jr. Student Accessibility Center (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website: <https://uh.edu/accessibility/> calling (713) 743-5400, or emailing [jdcenter@Central.UH.EDU](mailto:jdcenter@Central.UH.EDU).

The Student Health Center offers a Psychiatry Clinic for enrolled UH students. Call 713-743-5149 during clinic hours, Monday through Friday 8 a.m. - 4:30 p.m. to schedule an appointment.

The A.D. Bruce Religion Center offers spiritual support and a variety of programs centered on well-being.

The Center for Student Advocacy and Community (CSAC) is where you can go if you need help but don't know where to start. CSAC is a "home away from home" and serves as a resource hub to help you get the resources needed to support academic and personal success. Through our Cougar Cupboard, all students can get up to 30 lbs of FREE groceries a week. Additionally, we provide 1:1 appointments to get you connected to on- and off-campus resources related to essential needs, safety and advocacy, and more. The Cougar Closet is a registered student organization advised by our office and offers free clothes to students so that all Coogs can feel good in their fit. We also host a series of cultural and community-based events that fosters social connection and helps the cougar community come closer together. Visit the CSAC homepage or follow us on Instagram: [@uh\\_CSAC](#) and [@uhcupbrd](#). YOU belong here.

### **Women and Gender Resource Center**

The mission of the WGRC is to advance the University of Houston and promote the success of all students, faculty, and staff through educating, empowering, and supporting the UH community. The WGRC suite is open to you. Stop by the office for a study space, to take a break, grab a snack, or check out one of the WGRC programs or resources. Stop by Student Center South room B12 (Basement floor near Starbucks and down the hall from Creation Station) from 9 am to 5 pm Monday through Friday.

### **Academic Honesty Policy**

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed. The UH Academic Honesty Policy is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

### **Excused Absence Policy**

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergraduate Excused Absence Policy and Graduate Excused Absence Policy for reasons including medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

## **Recording of Class**

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Justin Dart, Jr. Student Accessibility Center. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

## **SESSIONS**

### **MODULE ONE - VALUE**

Textbook Readings: Ecosystem Section 1 - Foundations of the Ecosystem  
Value – Chapters 1, 2 and Appendix 1,2 (skim only)

Homework: Volume to Value

Value Cases: Plumeria – Chapter 1, Page 19  
Andromeda – Chapter 2, page 39

Key Case: Dartmouth Hitchcock

Topics: 1.1 Introduction to Course  
1.2 Is Healthcare a Business?  
1.3 Size and Complexity  
1.4 Healthcare Challenges  
1.5 Value in Healthcare  
1.6 Healthcare in Other Countries  
1.7 Homework Assignment: Volume to Value

- 1.8 Article Notes
- 1.9 Value Chapter 1 Notes
- 1.10 Value Chapter 1 Plumeria Case
- 1.11 Value Chapter 2 Notes
- 1.12 Value Chapter 2 Andromeda Health Case
- 1.13 Ecosystem Notes
- 1.14 Key Case: Dartmouth Hitchcock

Schedule:	Week 1	Lecture on Value
	Week 2	Homework One due before class start Plumeria and Andromeda due before class start Dartmouth Hitchcock Questions due before class start Homework and Case Discussion

## MODULE TWO - QUALITY

Textbook Readings: Ecosystem – Section II Provider Sectors in the Ecosystem  
Value – Chapters 5, 8, 9, 10 and Appendix 3, 6 (skim only)

Homework: Quality Analysis

Articles: Health Care's Service Fanatics  
Clinical Change at Intermountain Healthcare

Value Cases: Carlaris – Chapter 5, Page 100  
Vista – Chapter 8, Page 183  
Pine Street – Chapter 9, Page 204  
Mission Street – Chapter 10, Page 226

Key Case: Cincinnati Children's Hospital Medical Center

Topics: 2.1 Previous Module Review  
2.2 What is Quality?  
2.3 Zero Harm  
2.4 Evidence Based Care  
2.5 Patient Centered Care  
2.6 Homework: Quality Analysis  
2.7 Article Notes  
2.8 Value Chapter 5 Notes  
2.9 Value Chapter 5 Carlaris Case  
2.10 Value Chapter 8 Notes  
2.11 Value Chapter 8 Vista Case  
2.12 Value Chapter 9 Notes

2.13 Value Chapter 9 Pine Street Case  
 2.14 Value Chapter 10 Notes  
 2.15 Value Chapter 10 Mission Street Case  
 2.16 Ecosystem Notes  
 2.17 Key Case: Cincinnati Childrens

Schedule:	Week 3	Lecture on Quality
	Week 4	Homework Two due before class start Carlaris, Vista, Pine due before class start Homework and Case discussion
	Week 5	Mission Street due before class start Cincinnati Children's Case Questions due before class start Case Discussion

### MODULE THREE - COST

Textbook Readings:	Ecosystem – Section III Payer Sectors in the Ecosystem Value Chapters 3, 6, 11 and Appendices 7, 8, 9 (skim only)
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Homework:	Long Term Cost Analysis
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Articles:	How Not to Cut Health Care Costs How to Solve the Cost Crisis in Health Care Time-Driven Activity Based Costing
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Value Cases:	Pine Health – Chapter 3, Page 51 Alpine Health – Chapter 8, Page 136 Tanglewood Health – Chapter 11, Page 253
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Key Case:	Cavalier Hospital
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Topics:	3.1 Previous Module Review 3.2 Healthcare Cost Concerns 3.3 Lean 3.4 Population Health 3.5 Time-Driven Activity Based Costing 3.6 Homework: Long Term Cost Analysis 3.7 Article Notes 3.8 Value Chapter 3 Notes 3.9 Value Chapter 3 Pine Health Case 3.10 Value Chapter 6 Notes 3.11 Value Chapter 6 Alpine Health Case
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3.12 Value Chapter 11 Notes  
 3.13 Value Chapter 11 Tanglewood Health Case  
 3.14 Ecosystem Notes  
 3.15 Key Case: Cavalier Hospital

Schedule:	Week 6	Lecture on Cost
	Week 7	Homework Three due before class start Pine Health and Alpine Health due before class start Homework and Case Discussion
	Week 8	Tanglewood Health due before class start Cavalier Hospital Case Questions due before class start Case Discussion

#### MODULE FOUR - INNOVATION

Textbook Readings:	Ecosystem – Section IV Technology Sectors (Chapters 20-23) Value Chapter 4	
Homework:	Doctors Are Us	
Articles:	Why Innovation in Health Care is so Hard 3 Entrepreneurs Who Made It Their mission to Lower Health Care Costs	
Value Case:	Community Leader – Chapter 4, Page 68	
Key Case:	Ping An Good Doctor	
Topics:	4.1 Previous Module Review 4.2 Is Innovation a Game Changer? 4.3 Innovation 4.4 Pharmaceutical Industry 4.5 Medical Device Industry 4.6 Homework: Doctors Are Us 4.7 Article Notes 4.8 Value Chapter 4 Notes 4.9 Value Chapter 4 Community Leader 4.10 Ecosystem Notes 4.11 Key Case: Ping An Good Doctor	
Schedule:	Week 9	Lecture on Innovation Homework Doctors Are Us due before class start

Community Leader Case Questions due before class start  
Ping An Good Doctor Questions due before class start  
Homework and Case Discussion

## MODULE FIVE – DATA ANALYSIS

Textbook Readings:	Ecosystem – Section IV Technology Sectors (Chapter 24) Value Chapter 7, Appendices 4-5 (skim only)
Homework:	EHR and Primary Care Design (Jeff Case)
Articles:	Data Analytics at Alexandra Health System Applications of Business Analytics in Healthcare When Health Care Gets a Healthy Dose of Data
Value Case:	Spectrum Health – Chapter 7, Page 162
Key Case:	Patients Like Me
Topics:	5.1 Previous Module Review 5.2 Data Analysis 5.3 Homework: EHR and Primary Care Design 5.4 Article Notes 5.5 Value Chapter 7 Notes 5.6 Value Chapter 7 Spectrum Health 5.7 Ecosystem Notes 5.8 Key Case: Patients Like Me
Schedule:	Week 10      Lecture on Data Analysis  Week 11      Homework Five due before class start Spectrum Health due before class start Patients Like Me Case Questions due before class start Patients Like Me Case Discussion

## MODULE SIX – LAW AND POLICY

Textbook Readings:	Ecosystem – Section V The Public Sector of the Ecosystem Value Chapters 12, 13, Appendix 10 (skim only)
Homework:	Wrong Injection
Articles:	One Proven Way to Improve U.S. Health Care: Expand Medicare Advantage The Case for the Public Option Over Medicare for All Obesity Management at Kaiser Permanente Four Statutes
Value Cases:	Department of Health – Chapter 12, Page 288 Cypress Health – Chapter 13, Page 311
Key Case:	Dana Farber
Topics:	6.1 Previous Class Review 6.2 Health Law Regulation 6.3 Four Statutes 6.4 Medical Malpractice 6.5 Healthcare Policy and Reform 6.6 The Limits of Healthcare 6.7 Homework: Wrong Injection 6.8 Article Notes 6.9 Value Chapter 12 Notes 6.10 Value Chapter 12 Department of Health 6.11 Value Chapter 13 Notes 6.12 Value Chapter 13 Cypress Health 6.13 Ecosystem Notes 6.14 Key Case: Dana Farber
Schedule:	Week 12      Lecture on Law and Policy  Week 13      Homework Six due before class start Department of Health, Cypress Health due before class start Dana Farber Case Questions due before class start Homework and Case Discussion



## MODULE SEVEN – STRATEGY

Textbook Readings:	None
Homework:	Air Ambulance
Articles:	Strategic Decision Making in Healthcare Organizations The Strategy that Will Fix Health Care
Value Cases:	None
Key Case:	Oak Street Health
Topics:	7.1 Previous Module Review 7.2 Business Strategy Basics 7.3 Healthcare Strategy 7.4 Homework: Air Ambulance 7.5 Key Case: Oak Street Health 7.6. Course Summary
Schedule:	Week 14      Lecture on Strategy Homework Seven due before class start Oak Street Case Questions due before class start Oak Street Health Case Discussion Course Wrap-Up

## **Appendix A**

### **Live Session Expectations**

**PLEASE BE PREPARED TO BE CALLED ON DURING CLASS – IT IS EXPECTED THAT YOU HAVE READ AND ARE FAMILIAR WITH ASSIGNED READINGS AND CASES**

#### **High/Above-Average Contributions Assessment Criteria:**

Contributions reflect thorough or exceptional preparation.

Ideas offered are usually or always substantive, provide one or more significant insights and provide above average or highly productive direction for discussion among classmates.

Challenges to the ideas of others, including authors of assigned readings, are well-substantiated and often or always presented persuasively.

If this person were not present in our class sessions, the quality of discussion would be diminished markedly.

#### **Medium/Average Contributions Assessment Criteria:**

Contributions reflect satisfactory preparation.

Ideas offered are sometimes substantive, provide generally useful insights but seldom offer new and substantive direction for discussion among fellow classmates.

Challenges to the ideas of others, including authors of assigned readings, are sometimes well-substantiated and sometimes presented persuasively.

If this person were not present in our class sessions, the quality of discussion would be diminished.

#### **Low/Below-Ave Contributions Assessment Criteria:**

Contributions reflect inadequate preparation.

Ideas offered are seldom substantive, provide few, if any, insights and, at times, take the classroom discussion in an unproductive, insightful direction.

Integrative comments and effective challenges are rare or absent.

If this person were not present in our class sessions, the quality of discussion would not be changed or might improve

## **APPENDIX B**

### **Homework Questions**

#### **HOMEWORK ONE - Volume to Value**

You are the Administrator of Omega Health in Central City. Omega Health is a large for-profit, multidisciplinary clinic which provides a range of primary and specialized care. The clinic is owned by five physicians in the group. All your patients come from a single contract with the Alpha Group, a consortium of large businesses in Central City. Alpha Group has agreed to pay you \$100 per visit on a fee-for-service basis.

Assume you have the following data from the prior year:

Patient Visits:	75,000
Revenue:	\$7,500,000
Variable Costs:	\$2,000,000
Fixed Costs:	\$5,000,000

For the coming year, assume one of these three scenarios:

A new insurer Beta wants to contract with you to cover its insureds, which would increase visits by 15,000 per year (to 90,000) and Beta will pay the same amount per visit as Alpha. You can accommodate the increased number of patients without any changes to the size of the clinic or its equipment.

The Mayor informs you that Central City, with a federal grant and a donation from Alpha, is starting free health fairs and employee health programs which are expected to dramatically improve the health of Central City's workforce. Indeed, Omega Health's mission statement is to "Improve the Health of Central City". You estimate that your patients' improved health will reduce patient visits to 50,000 per year.

Alpha wishes to end its fee-for-service payments, and instead to negotiate a "Value Program" with a capitated payment of \$7,500,000 per year, irrespective of the number of patient visits.

#### **QUESTIONS:**

How much profit did Omega make last year?

What is Omega's profit if it enters into the Beta contract?

Assume you do not get the Beta contract. Are you excited about the Mayor's initiative? What effect is the Mayor's plan going to have on your profitability? If the owners want to maintain the current level of profitability and you cannot change the variable costs or renegotiate your contract with Alpha, what has to change and by how much?

Assume the Mayor's program is delayed, and you still do not have the Beta contract. If you entered into the capitated payment contract with Alpha, how many patient visits do you want to maximize your profitability? Does this change your enthusiasm for the Mayor's program?

## **HOMEWORK TWO – Quality Analysis**

The Leapfrog Group assigns quality scores to hospitals on an A to F scale. The federal government's Medicare program assigns quality scores on a five-star to one-star basis.

Use the internet to identify a facility that recently received an "F" grade by the Leapfrog Group.

Look up your chosen hospital on the Medicare.gov hospital compare website.

Finally, look up your hospital on the Lown Institute website

<https://lownhospitalsindex.org>

Review your chosen hospital's reported care on the three sites. As a new administrator, what three issues would be your highest priority to improve quality? What steps would you take to address these quality issues?

What differences did you find in the grading criteria? As a consumer of healthcare, which of the three grading systems do you believe is the fairest and the most helpful in assessing the quality of a healthcare institution?

## **HOMEWORK THREE – Renal Clinic Design**

You are the administrator of a clinic. Assume you perform a TDABC analysis on your institutions 300 patients with a certain level of significant renal (kidney) failure. These patients on average are seen quarterly in the renal clinic and on average need to be hospitalized twice a year. You run a pilot study to evaluate the effect of seeing a subset of patients monthly and begin a telemedicine program.

You determine the following costs from your TDABC analysis:

Average hospitalization cost = \$40,000

Average long (standard) clinic visit cost = \$300

Average short clinic visit cost = \$200

Telemedicine check cost = \$20

Your data shows that patients seen quarterly for clinic visits are hospitalized twice per year on average, while those seen monthly are only hospitalized once. Your data further shows that patients who receive four short telemedicine checks a month only need short clinic visits.

You are interested in reducing the cost of care of your renal failure patients. How would the total cost of care change for your 300 renal patients if you moved all patients to monthly visits and telemedicine checks? Putting aside cost, do you think quality would improve? If so, in what ways? How would you measure any quality change?



What if a \$10 per month monitoring device with daily data uploads, twice a month telemedicine checks, and quarterly short clinic visits also reduced hospitalizations from two to one per year. Now what would be the total cost of care for your 3000 patients?

#### **HOMEWORK FOUR – Doctors Are Us**

Review the Doctors Are Us case study. Assume you have been hired as a consultant by a group of investors seeking to invest in healthcare technology. Evaluate the Doctors Are Us business for possible investment.

What do you see as the strengths of the business?

What do you see as the weaknesses of the business?

Do you recommend investing in the business?

#### **HOMEWORK FIVE – Jeff**

Review the Jeff case study. Assume you are the Chief Operating Office of a large county-wide hospital and clinic system. Design an outpatient clinic (non-hospital) and data system to improve the quality and cost of care of patients like Jeff. What types of specialists would work in the clinic? What data and technology would you implement? Determine the annual cost for a clinic that would serve 1000 patients a year with health care problems similar to Jeff. What hospital costs that Jeff incurred would you hope to avoid? Would your clinic design be cost-effective compared to the scenario set forward in the Jeff case? Would the quality of care be better? The information in Chapter 6 of the Handbook may be of help in estimating specialist costs.

#### **HOMEWORK SIX – Wrong Injection**

You are the director of a general outpatient clinic. You have just been notified by the medical staff that there has been a patient care problem. Here are the facts. Paul Parr came to the clinic today with a severe skin rash, likely from an encounter with poison ivy doing volunteer yard work at a neighborhood park. Doctor Davis, concluding that a topical ointment might not be sufficient, decides to order an injection of 2 ml of Depo-Medrol. Depo-Medrol is a steroid, and such an injection lasts about two weeks. Drugs are arranged on the clinic pharmacy shelves alphabetically. Nurse Nuance takes the vial of medication and injects 2 ml. Only after the injection is complete and Mr. Parr is awaiting discharge from the clinic does she realize that the drug she injected was Depo-Provera, not Depo-Medrol. Depo-Provera is a progesterone contraceptive drug that lasts about 12 weeks and prevents pregnancy. The patient has not received any Depo-Medrol, the drug that was ordered. Mr. Parr is waiting and has not been told of the error. Dr. Davis and Nurse Nuance want to know what to do.

As the director of the clinic, outline the steps you will take today and going forward to address this issue.

## **HOMEWORK SEVEN– Air Ambulance**

You are the CEO of a major not for profit academic healthcare institution and the referral hospital for smaller hospitals receiving complicated trauma and medical patients.

Your VP of Operations is considering the formation of an air ambulance program using helicopters to transport trauma victims from scenes (e.g. motor vehicle accidents or shootings) as well as patients from smaller outlying hospitals who need a higher level of care (e.g., a patient at a small hospital with pneumonia who now needs complex ICU care). The air ambulance system could cover your county and the five surrounding counties. Currently, emergency transportation in your county is by a county government run EMS system and a small number of private ambulance services. Significant traffic congestion in your community often results in delays in transport.

Before embarking on the project, who are the stakeholders you would want to approach and what arguments would you use to achieve buy in from each group? What resistance would you anticipate? From your internet research, what cost problems occur with air ambulance programs and what sources of reimbursement are available? What institutional advantages and disadvantages need to be considered before proceeding with the program?

## **Appendix C**

### **Value Case Questions**

#### **1. Plumeria – Approaching Value Based Care**

You are Plumeria's Chief Human Resources Officer. Leadership has tasked you with finding a way to reduce healthcare costs. Write a memo describing a value-based plan you will recommend to senior leadership. You may use find ideas from this chapter of the textbook and any internet research. You should include: specific elements of the plan; the challenges you expect; how you plan to engage with your employees and other stakeholders to ensure acceptance; and a timetable, milestones and financial and other metrics to gauge performance.

#### **2. Andromeda – Clinical Innovations for Value Based Care**

You are the Chief Quality Officer for Andromeda tasked with creating a proposal to reduce readmissions.

Using the data supplied from the CFO, prepare a memo that:

Calculates the readmission rate for heart failure.

Calculates the potential readmission penalty.

Calculates the annual revenue from these admissions.

Calculates what the readmission rate has to be to break even on the revenue source

Estimate the reduced readmission rate you can achieve.

Create a proposal to reduce the rate addressing the clinical staff needed the information technology needed, and any clinic structure. Estimate these costs.

Identify the readmissions reduction needed so that the cost of the initiative is covered by the savings of avoiding the readmissions penalty.

Estimate how long it will take to achieve the savings.

#### **3. Pine Health – Value and Payment Reform**

You are the Chief Financial Officer of Pine Health. Draft a memo to the Hospital Board that includes the following:

1. A calculation of the overall profitability of Pine Health; a calculation of the profitability of Pine Health by each line of business; and a calculation of the financial penalty resulting from readmissions and complications for each line of business.

2 A recommendation for a financial arrangement Pine Health can negotiate with its medical groups to reduce length of state, readmissions, and complications. Consider risk-based arrangements and performance-based metrics.

3. A recommendation for a contractual arrangement Pine Health can enter with post-acute entities such as nursing homes, rehabilitation centers, and home health agencies to facilitate improved performance in clinical results with a decrease in readmissions.

#### **4. Community Leader - Accountable Care Organizations and Value**

You are a community leader interested in improving the health of the population of your city. You have been tasked with other local leaders with fully describing the formation of an Accountable Care Organization (ACO) and the benefits it might bring to the local population. Your description might

include but not be limited to: what an ACO would look like; what resources (staffing, IT, payment reform, clinical integration, physical plant) would be needed, what resistance might be encountered, a description of winners and losers among stakeholders, benefits to the community, regulatory and legal hurdles. Propose a timetable with milestones and a budget for the plan.

## **5. Carlaris Health – Clinical Integration**

You are the Chief Strategy Officer for Carlaris Health tasked with producing a 5-year plan to improve the financial and operational status of the system. Please produce a memo describing several optional paths forward that might include but not be limited to the following: clinical integration, interprofessional opportunities to improve access to primary care, a system to reduce readmissions, an approach to payers regarding shared savings as a result of operational effectiveness, a consideration of a physician-hospital or ACO collaboration, the possibility of Carlaris becoming a payer, and the risks of your various proposed strategic paths.

## **6. Alpine Health – Population Health**

You lead a consulting team asked to provide Alpine Health with a ten-year plan to reverse its operational and financial challenges. Please prepare a report that might include but not be limited to: strategies to increase revenue (e.g. performance-based incentives, quality-related reimbursement, membership growth), steps to reduce costs (through renegotiation of provide-based contracts, narrowing of the network, utilization management, population health efforts, disease management or case management), reversing the declined in membership by improving patient experience, describing metrics to get a better understanding of operations, any suggested improvements to improve information technology capabilities, and finally, ways for leadership to better understand the resource allocation of members with the highest rates of resources utilization and ways to improve outcomes and quality but reduce costs among this cohort.

## **7. Spectrum Health – Health Information Technology and Value**

You lead a consulting team tasked with recommending Health Information Technology that would increase operational value for Spectrum Health. Your report might include but not be limited to the following: sources of current waste eroding value, details of a program to implement an HIT system anticipating stakeholder objections and challenges, milestones and metrics to monitor your plan, and the development of a telehealth system to provide stroke specialist services to rural areas in the system that might serve as the model for future specialty service applications.

## **8. Vista Health – Quality Improvement and Value-Driven Care**

You are the Chief Quality Officer of Vista Health tasked with addressing the wide variance of blood transfusion practices at Vista. Assume that current evidence-based studies support: 1) no transfusion for stable patients with a hemoglobin level of 7 or more; 2) physician judgment for transfusions of hemoglobin levels of 7-10 for unstable patients; 3) no transfusions without approval from the blood bank physician director for patients with a hemoglobin level greater than 10. What challenges do you anticipate in undertaking this quality initiative? Explain the advantages in following evidence based best practices from a cost and quality perspective. Does creation of a transfusion policy increase or reduce legal exposure for Vista? How will you deal with physicians who do not accept the new policy? What timetable and metrics will you follow to measure success?

## **9. Pine Street Hospital – Tools for Improving Quality and Safety**

You are the Chief Operating Officer of Pine Street Hospital tasked with reducing the left-without-being-seen (LWBS) rate from the current 6% to 1%. Assume the average time of inpatient discharge is 3PM. Compose a memo to the CEO: identifying potential and most likely causes of the LWBS metric; explaining negative impacts on revenue, profitability, quality and outcomes; and identifying measures to reduce the LWBS rate. Include in your memo the possibility of establishing a hospitalist program for Pine Street. Also address what effect moving the discharge time to 11 am would have on clinical throughput, bed availability and ER wait times.

## **10. Mission Street Clinic – Accreditation and High Reliability**

You are the CEO of Mission Street Clinic tasked by the Board with addressing 6 recent episodes in which an incorrect prescription was filled, and a patient was nearly harmed. Your memo should include but not be limited to: whether the errors are a real cause for concern, what strategies you will use to further investigate the reasons for the near misses; a discussion of the role of policies and procedures, a just culture, and transparency as they relate to the Mission Street pharmacy; and your recommendation for proposed solutions, pending a more in-depth investigation.

## **11. Tanglewood Health – Cost Structure and Sustainable Value**

You are the Chief Operating Officer tasked with guiding Tanglewood to a breakeven point in 12 months and profitability in year 2 with the caveat that cost-cutting must not jeopardize quality. Assume that the system performs 300 hips replacements per year and your orthopedic physicians are split in their preferences for four vendors for hip replacement, with each physician threatening to take his patients to a competing hospital if his choice of vendors is disturbed. Assume that you have been told by your Nursing Director that no studies have shown any particular type of hip replacement device to have advantages. Assume the cardiology department uses pacer from four vendors and the usage is split equally across the four with the cardiologists strongly opposed to changing their preferences. Again, assume your Nursing Director has suggested there is no evidence that the different pacer models have advantages over one another. Finally, assume that nursing unit productivity is 94 percent with 6 out of 100 hours lost because staff members remain in the unit unnecessarily during periods of low census. Draft a memo to the CEO that includes but is not limited to: an outline of your overall strategy regarding revenues and expenses; your suggested approach to addressing the hip replacement and pacer vendor issues and how you intend to address the physician concerns; how you intend to address the nursing productivity issues and any obstacles you may face in this regard; and a timetable and financial support for your turnaround plan.

## **12. Department of Health – The Potential for Delivering Value**

You have been hired by the Texas Department of Health to reduce ballooning healthcare costs in the state. Prepare a memo that includes but is not limited to: a strategy identifying the greatest opportunities to reduce healthcare expenses; an identification of the major cost drivers for the healthcare budget; measures to reduce cost and improve quality in the Medicare, Medicaid and commercial health insurance markets; suggested metrics to track results, a budget and timeline for your cost reduction strategy.

### **13. Cypress Health – Ethics, Compliance and Regulation**

You are the Chief Compliance Officer for Cypress Health. Investigators for Medicare and Medicaid have recently publicized \$500 million in overbilling by other healthcare plans in the two states you serve. Meanwhile, Cypress Health and other health plans have been complaining that revenue from the two programs is not covering their expenses. Consumers are complaining that their access to providers and care has been unduly constrained. The Cypress Health Board wants assurance that it is in compliance with its Medicare and Medicaid contracts. You may need to do an internet search to identify major causes of Medicare and Medicaid fraud and abuse.

Prepare a memo to the Board that includes but is not limited to: a description of your compliance plan; steps needed to ensure that the compliance plan is followed; metrics that will track internal audits, compliance events and breakdowns in compliance; your plan for dealing with compliance failures and major areas of compliance concern.

### **Appendix D Key Case Questions**

#### **Module One: Dartmouth-Hitchcock**

What motivated Weinstein to start the Spine Center? Why back pain?

Describe the Spine Center model. How does it differ from prevailing approaches to the delivery of spine care?

How does the Spine Center create value for patients? Describe other stakeholders and how the Spine Center creates value for each of these.

What issues and challenges does the Spine Center face? What would you recommend that Weinstein do about them? What could the leadership of Dartmouth-Hitchcock do to help?

Can this model be used beyond spine care? Which clinical areas would benefit most from such a model? Should this model be extended to other areas of Dartmouth-Hitchcock?

#### **Module Two: Cincinnati Children's**

What are key differences in healthcare organizations vs. manufacturing organizations? How should these differences impact CCHMC's approach to improving quality?

What do you think about CCHMC's improvement team's policy of transparency? Are they being too open with their performance data?

Consider Exhibit 4, Figure D. Which problem would you recommend they address first?

Moving forward, what would you recommend Kotagal do to sustain the hospital's improvement efforts?

### **Module Three: Cavalier Hospital**

Fully analyze the performance of Cavalier Hospital and the Rotunda Cardiovascular Care Center based on our discussions of Value = Quality /Cost.

### **Module Four: Ping An Good Doctor**

Describe the key problem facing China's healthcare industry.

How did the management of Ping An Good Doctor address this problem?

What are the keys to Ping An Good Doctor's success?

Despite the case title, is Ping An Good Doctor actually a non-disruptive innovator? Is it truly a blue ocean innovator?

What is Ping An Good Doctor's revenue model?

How did Ping An Good Doctor fit into China's regulatory scheme?

### **Module Five: Patients Like Me**

What value does PatientsLikeMe bring to patients and to clinicians? How can patient-generated health data be used to make decisions regarding treatment?

In what ways does patient-generated health data complement traditional clinical trial processes? What challenges might arise in this context?

Assess Patients Like Me's revenue model.

How does Patients Like Me manage the issue of patient privacy? How does this differ from the traditional approach in the healthcare sector? Are there remaining concerns?

### **Module Six: The Dana-Farber Cancer Institute**

Who is responsible for the death of Betsy Lehman? Why?

What was the Dana-Farber's system for ensuring patient safety?

What are the key issues that must be addressed after the error was discovered? What steps need to be taken to reform the Institute?

What action (or actions) should be taken with respect to the individual (or individuals) involved?

### **Module Seven: Oak Street Health: From Start-up to Strategic Acquisition**

Describe each of the key elements of Oak Street Health's strategy.

Does Oak Street deliver value? Describe this in detail using our Value = Quality/Cost model.

Is Oak Street successful? What is the relevant definition of success for Oak Street?