

Innovation in Global Healthcare
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Instructor

Lorraine Marchand, '06
llm2118@gsb.columbia.edu
267-391-7553

Description

By 2020, global spending on healthcare is forecast to be \$8.7 trillion annually, 10% of global GDP. There are vast discrepancies in how this spend is apportioned: While US healthcare spending hit \$3.65 trillion in 2018, accounting for nearly 18% of GDP, countries in Western Europe hover under 11% GDP. China with a population of 1.3 billion apportions just under 6% GDP on healthcare and India with nearly 1.4 billion people spends less than 3% GDP. One might assume that quality, access, innovative therapies and better patient outcomes reflect spending, but we'll learn why that's not necessarily the case. We'll explore how innovation can help reduce costs, improve quality and increase patient access to healthcare.

In this course we will examine financial models, patient access, care quality and innovative strategies and technologies, and the interplay of these factors on improving the population's health. As context, we will review 1) the structure of health care systems in different countries; 2) financial models and trends for single vs. public/private payment systems; 3) the structure of healthcare delivery and the role of key stakeholders; and 4) innovation models in healthcare financing, services, technology and product manufacturing. We will explore the lessons the top 7 countries can share with emerging nations and vice versa—what can mature nations learn about innovation from the developing world.

Course Learning Objectives

- Understand how healthcare is organized and examine the healthcare system in different markets
- Analyze need for innovation in healthcare, including role of finance, delivery, pricing and reimbursement and technology
- Study innovation models in global healthcare markets
- Identify future opportunities for investment and career opportunities in global healthcare

Format and Approach

This course promises to be intellectually stimulating and challenging. Class participation will be critical for the students, and we will constantly seek to relate the information and ideas discussed in the classroom to issues currently confronting companies, investors and

entrepreneurs in this sector. Understanding/experience in the healthcare, venture capital, and/or technology/biopharma sectors is highly valuable.

Student focus

Students who plan to work in any of the following segments of the health care field will find this course useful

- Health insurers and managed care organizations
- Hospitals and physician practices
- Financial services focused on health care
- Public and not-for-profit organizations focused on health care
- Pharmaceutical and medical device companies
- Digital healthcare innovation technology

Course Topics

The course will focus on ensuring students understand critical components of innovative healthcare business models, internationally, including the:

- Key drivers of change in healthcare
- Strategic challenges and opportunities to improve healthcare
- Best practice models of healthcare services and financing in select countries, including a focus on healthcare in mature markets vs. frugal innovation in emerging countries
- Role of technology in innovation
- Investment models and key actors
- Role of various stakeholders, including consumers / patients
- Cost, pricing and reimbursement
- Role of government policy and regulation
- Infrastructure to enable health care and wellness

Class format will be lectures, readings, case studies, and presentations from senior executive guest speakers. Students will be asked to monitor current events in global healthcare and students will have an opportunity to share their insights and lead discussions on healthcare/life sciences current events.

Assignments and method of evaluation

Participation: Attendance and classroom discussions based on readings and current events; case analysis. **(30%)**

Individual assignments: One short essay question and two case studies (short write ups) related to course topics **(45%)**

Final presentation: One final group presentation on a topic of choice from those covered in this course **(25%)**

Classes 1 and 2: Healthcare delivery and payer models (Review of 8 countries and 1 continent)

Classes 1 and 2 will provide a high level of overview of the healthcare system in the US, the Netherlands and Germany (basis for Affordable Care Act in US) and the UK, China, India, Latin America, Africa

In classes 1 and 2, we will review basics of healthcare delivery including design and financing of public and private insurance—differences between single payers vs. public/private model. Examine organization of healthcare delivery and the reimbursement of physicians, hospitals, and pharmaceutical and device manufacturers. Review models for technology adoption and payment- the need to balance access and quality with the cost of innovation. Learn how to evaluate healthcare systems among different countries. Understand underpinnings of healthcare costs and prices to consumers.

Readings

- Kaplan, Robert, Porter, Michael, “How to Solve the Cost Crisis in Healthcare,” HBR, Sept. 2011
- Squires, David, “U.S. Health Care from a Global Perspective: Spending, Use of Services, Prices, and Health in 13 Countries.” The Commonwealth Fund pub 1819 Vol. 15, 2015
- Datar, Srikant et al, “BMVSS: Changing Lives through Innovation One Jaiper Limb at a Time,” HBR, July 2014

Assignment

- Write a 2-page double spaced paper commenting on the merits of the argument put forth by Kaplan and Porter in How to solve the cost crisis in healthcare, OR
- Prepare a summary of the case study on innovation in India re: the Jaiper limb

Guest speakers

1. Optum
2. St. Boniface Hospital, Haiti

Class 3: Delivering healthcare via digital means

This session will focus on the top trends in digital healthcare across the globe and evaluate which countries have been the front runners in adopting digital innovation. We'll also discuss the biggest hurdles, laws and regulations in digital health. We'll focus specifically on the impact of artificial intelligence, Electronic Medical Records (EMRs), Digital HIT such as wearables on the US healthcare system.

Readings

- <https://healthcare.mckinsey.com/digital>

- Christensen, Karen, “Thought leader Interview: Eric Topol,” Rotman Management, Winter 2016

Assignments

- Submit a 200 word paper on top trends in digital health and how digital can help overcome healthcare issues in a country of choice
- Topic for the final presentation to be submitted

Guest speakers

1. Flatiron Health
2. Verily

Classes 4 and 5: Drug, discovery & development and innovation in biopharmaceuticals and medical technology

These two sessions will provide an overview of the dynamics of the pharmaceutical industry across the globe. Some key differences include how drug pricing and regulations differ in each country and how those difference feed into the payment system. We'll also cover the recent development in personalization of medicines using real world data, and the new business models, especially medical technology models, in the pharma and medical device industry.

Case Studies (select 1)

- 23andMe
- PerkinElmer- Developing Products in China for China
- Becton Dickinson, Global Health Strategy

Assignments

- Submit a 2-page paper on the case study of your choice

Guest speakers

1. Intercept Pharma
2. Novartis Oncology
3. Merck Vaccines

Class 6: Final Project Presentations and Course Wrap-up

Final course wrap up highlighting key takeaways from each session. Final presentations are also due in this class. Students will form a group of 4-5 and submit a 4-5 slides presentation (excluding title slide) on a topic of choice.