

## Empirical and Mathematical Reasoning 20

### Why Is There No Cure for Health Care?

Fall Term, 2018

Class lectures on Monday, Wednesday, and Friday, 12:00–1:15pm, | Sever Hall 113

Weekly sections- 1 hr

**Course Website:** <https://canvas.harvard.edu/courses/43440>

#### INSTRUCTOR

##### **Professor David M. Cutler**

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Feel free to e-mail me as that is often quicker than scheduling a meeting.

*To schedule an appointment, please contact:*

Clare Dingwell, Faculty Assistant

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#### TEACHING FELLOWS

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#### Why is There No Cure for Health Care?

Around the world, billions of dollars are spent on health care treatments, public health initiatives, and pharmaceutical research and development. So why are we still not able to prevent preventable diseases, provide affordable healthcare for millions of people, and deliver cures for curable diseases? And what are the best ways to address these issues?

Because these questions are so large, we will focus our discussion around questions like: What steps should be taken to end the HIV/AIDS epidemic? How should prescription drugs be produced and sold? How should the United States reform its health care system?

We will explore how social scientists address empirical questions, the types of data that are available, how those data are analyzed, and the confidence with which causal statements are made. By the end of the course, you will be able to dissect a large question – such as how to reform American healthcare – into its technological, social, economic, and moral components, and weigh potential solutions according to these guiding vectors.

## GENERAL EDUCATION

**As a General Education course, the class has been designed to** emphasize broad analytic and critical thinking skills rather than acquisition of facts and details. You will acquire a solid organizational framework to consider the salient features of contemporary health challenges, including the importance and limits of medicine, the social, political and economic determinants of health, and the role of policy in influencing health. Through exercises in class and section, you will confront both similarities and unexpected differences between health problems. While the course is intended to raise your awareness of the complexity of our contemporary realities, we hope it will also illustrate the power of possibility—unparalleled opportunities for shared learning and collaborative solutions.

This course meets the General Education requirements in “Empirical and Mathematical Reasoning”, “Societies of the World,” or “United States and the World.”

## ECONOMICS DEPARTMENT CREDIT

**The course counts for economics department credit.** If you wish to receive writing credit, you need to write the term paper and demonstrate facility with economics concepts.

## LEARNING OBJECTIVES

**There are two objectives for the course.** The first is to confront issues of importance policy concern. We will do this in three areas, noted below. Second, we want to teach you how to think about difficult empirical problems – problems where theory alone will not give a complete answer, and where the data are not fully conclusive. We expect you to struggle with these questions – even professionals in the field do.

## COURSE DESIGN

**The class is divided into three units.** In each unit, we will discuss substantive and methodological issues. The assignments will mirror this division. There will be problem sets that focus on the methods and tools used in each unit. In addition, students will complete an applied assignment at the end of each unit that involves coming up with an answer to the driving question of that unit.

| Unit            | Analytic Tools   | Unit Question   |
|-----------------|--|---|
| HIV/AIDS        | Epidemiology<br><b>Problem Set 1 due: September 24</b>                                 | Can we have a world without AIDS?<br><b>Analysis 1 due: October 2</b>         |
| Pharmaceuticals | Economics: Supply and demand<br><b>Problem Set 2 due: October 19</b>                   | What type of startup would you design?<br><b>Analysis 2 due: October 26</b>   |
| Health systems  | Regression analysis; causality v. correlation<br><b>Problem Set 3 due: November 19</b> | How can we fix health care in the U.S.?<br><b>Analysis 3 due: November 28</b> |

## NAVIGATING THE COURSE

We recommend navigating the course by keeping up with the material on a regular basis. We recognize that some students learn best by reading prior to material being presented in lecture and some learn best by reading after material is presented, that some students are skimmers and some are highlighters. Do what works best for you, but know that **you will get more out of class if you do the reading shortly before the class or just after**. Each unit is a story, and it is hard to tell the story without following chapter-by-chapter.

### What you will do in this course...

Here is an overview of what you will do in the course and how the components will count towards your grade.

#### PREPARE

- Read papers/briefs
- Watch videos/media clips
- Explore data interactives

#### PARTICIPATE AND ENGAGE (10%)

- Attend all lectures and participate as appropriate
- Attend/engage in section every week

#### PRACTICE AND APPLY (20%)

- Complete problem sets on “tools and methods” (one per unit, three total)

#### DEMONSTRATE SKILLS AND COMPETENCIES (70%)

- Produce a unit project for each unit (three total) (40%)
- Write a final term paper or take the final exam (30%)

Final grades will be on a curve, with approximately 1/3 of students receiving an A or A-.

## WEEKLY LECTURE AND CLASS PARTICIPATION

The course is scheduled for Monday, Wednesday, and Friday, 12:00–1:15 in Sever 113. In general, we will meet 2 days per week – though the exact two days will vary. Follow the syllabus closely!! Class will start promptly at 12:00. Students who are habitually late or non-attendees will receive lower participation marks.

I would like this class to have as much participation as is possible. I welcome questions, comments, or items of news interest.

## SECTION

Sections are held weekly, are 1 hour, and are mandatory. Sections may be thought of as your “learning community” in this course, allowing for more interactive discussion than the large group lecture setting. Sections will focus on recapping the major material from the week and extending the discussion. Students are expected to bring their class notes and any other preparation directed by their TF so that they can engage actively with their colleagues during section. Students will use an electronic sectioning

tool in the beginning of the semester to select permanent section times on specific days that will be announced in class.

**Sectioning will occur late in the week of September 10<sup>th</sup>. The first section will be held the week of September 17.**

Your section leader will hold office hours every week. Office hours are optional, but we encourage any student who has questions, is in need of assistance, or would like to discuss issues related to class, to seek out their section leader.

### PROBLEM SETS

**The problem sets will be analytical.** This is a chance for you to become familiar with the technical issues in the course – epidemiology, economics, and so forth. The problem sets are likely to take some time. but remember they are largely to help you – their contribution to the overall grade is modest.

Problem sets will be posted approximately one week before they are due. When appropriate, solutions will be posted after they are due. As a result, late problem sets will not be accepted.

### UNIT ASSIGNMENTS

**You will have a range of applied projects.** You will explore international relations, business strategy, and public policy. They are also designed to take you out of your comfort zone. The best way to do the assignments is to dive in and put yourself in the indicated situation.

The unit assignments will be posted approximately one week before they are due. Some combination of student responses will be presented in class, on the indicated ‘Presentation and Discussion’ days. We will have outside visitors come to give comments on a number of the presentations that day and answer questions from all students.

### FINAL EXAM OR TERM PAPER

**The final exam will be a mix of analytics and interpretation.** It will cover the entire semester. And will focus on both the ‘forest’ and the ‘trees’.

**The term paper will ask to you analyze a health topic of your choosing, to make an argument, and to use data to support the argument.** The key is the last part: I want you to use data to support an argument you want to make about health policy. I will not prescribe the type of data you gather or how you analyze it. That is up to you.

You can elect to take the final exam **or** write a term paper. Notify your TF about your choice by November 2. The due date for the term paper will be announced after the final exam schedule has been released. Late papers are marked down 1/3 grade per day (including weekends).

The final or term paper accounts for 30% of your grade.

## ACADEMIC ADJUSTMENTS/SPECIAL ACCOMMODATIONS

If you need academic adjustments or accommodations, you should present your letter from the Accessible Education Office (AEO, <http://www.fas.harvard.edu/~aeo/>) and speak with Professor Cutler or the teaching fellows by the end of the second week of the term. Failure to do so may result in our inability to respond in a timely manner. All discussions will remain confidential, although AEO may be consulted to discuss appropriate implementation.

## COLLABORATION

Discussion and the exchange of ideas are essential to doing academic work. For assignments in this course, you are permitted to consult with your classmates as you work on problem sets. However, after discussions with peers, make sure that you can work through the problem yourself and ensure that any answers you submit for evaluation are the result of your own efforts. In addition, you must cite any books, articles, websites, lectures, etc. that have helped you with your work using appropriate citation practices. Similarly, you must list the names of students with whom you have collaborated on problem sets.

You should be familiar with Harvard's [Honor Code](#) and follow it in this class.

## QUESTIONS

If you have questions about timing of assignments, email Professor Cutler at [dcutler@harvard.edu](mailto:dcutler@harvard.edu). If you have questions about the grading of an assignment, you should submit your question in writing to Rebecca Sachs, [rmsachs@g.harvard.edu](mailto:rmsachs@g.harvard.edu).

## READINGS

**There are no required texts.** However, **you are expected to read all of the supplementary material.** All of the readings are linked. Please contact [dingwell@fas.harvard.edu](mailto:dingwell@fas.harvard.edu) if you are unable to access any of the readings.

## KEEPING UP TO DATE

With so much happening in health care, it is hard to keep up with it all. Here are some suggestions:

For (largely) US issues, skim the weekly table of contents for [JAMA](#) and the [New England Journal of Medicine](#). Look at the monthly journal [Health Affairs](#) and follow their [blog](#). For (largely) global issues, skim the table of contents for [BMJ](#) and the [Lancet](#). Most of these journals have emails lists and they will send you the table of contents if you wish.

Twitter is active in health care. You can see who I follow (@Cutler\_econ); that gives you a guide to whose opinions I enjoy seeing.

## FALL 2018 CLASS SCHEDULE

|   |       |           |   |
|---|-------|-----------|---|
| Intro   | 9/5   | Wednesday | A Tour of the World's Health                        |
| <b>Unit 1. HIV/AIDS</b>   |       |           |   |
| <p>In this unit, we consider the global problem of HIV/AIDS, a prototypical infectious disease epidemic which is shaped by individual, proximal, and structural determinants of health, and disproportionately affects the most vulnerable members of society. The world is at a watershed moment in the likelihood of progress on goals set by the international community for 2030. We will examine:</p> <p>(1) Etiology, health and non-health (economic) outcomes; prevention and treatment; social determinants of HIV (individual, proximal, structural) [9/7-9/12];</p> <p>(2) Epidemiologic burden and trends, global progress (basic science, drugs, social movement) [9/17];</p> <p>(3) Global governance/goals (SDG, UNAIDS) and challenges (money, resistance, TB co-infection) [9/21-9/24]</p> <p>(4) Regional (SSA, Asia, LAC) and national progress (e.g., Botswana, Uganda, Rwanda, Thailand) and failures (Russia, the Middle East, vulnerable populations) [9/26-10/1].</p> |       |           |   |
| Session 1.1   | 9/7   | Friday    | The Epidemiology of HIV                             |
| No Class  | 9/10  | Monday    | Rosh Hashanah                                       |
| Session 1.2   | 9/12  | Wednesday | Economic Impact of HIV                              |
| No Class  | 9/14  | Friday    |   |
| Session 1.3   | 9/17  | Monday    | Modeling Epidemics                                  |
| No Class  | 9/19  | Wednesday | Yom Kippur  |
| Session 1.4   | 9/21  | Friday    | Addressing HIV in Poor Countries                    |
| Session 1.5   | 9/24  | Monday    | The HIV Epidemic in the United States               |
| Session 1.6   | 9/26  | Wednesday | HIV Successes                                       |
| No Class  | 9/28  | Friday    |   |
| Session 1.7   | 10/1  | Monday    | HIV Failures and Challenges                         |
| Session 1.8   | 10/3  | Wednesday | Presentations and discussion                        |
| No Class  | 10/5  | Friday    |   |
| <b>Unit 2. Pharmaceuticals</b>  |       |           |   |
| <p>Pharmaceuticals are among the most beneficial medical technologies known. And yet, there is incredible antipathy towards pharmaceutical companies: people believe their prices are too high, they cater to the wealthy over lower and middle income people, and they put profits over patients. How should the world approach the issue of pharmaceutical company research, development, and pricing? In this unit, we will explore several aspects of pharmaceuticals:</p> <p>(1) The supply and demand for pharmaceuticals, and how they determine price and access [10/8-10/17];</p> <p>(2) Innovation in the pharmaceutical industry [10/15, 10/24];</p> <p>(3) Proposed policies to increase access to pharmaceuticals in poor countries (compulsory licensing, graded pricing) and rich countries (insurance coverage, price negotiations) [10/19-10/29].</p>  |       |           |   |
| No Class  | 10/8  | Monday    | Columbus Day  |
| Session 2.1   | 10/10 | Wednesday | The Pharmaceutical Problem                          |
| Section 2.2   | 10/12 | Friday    | Demand and Supply: The Economics of Pharmaceuticals |

|  |       |           |  |
|--|-------|-----------|--|
| Session 2.3  | 10/15 | Monday    | Pricing, Regulation, and Innovation                    |
| No Class   | 10/17 | Wednesday |  |
| Session 2.4  | 10/19 | Friday    | Policy Options for Low and Middle Income Countries     |
| No Class   | 10/22 | Monday    |  |
| Session 2.5  | 10/24 | Wednesday | The New Pharma Industry                                |
| Session 2.6  | 10/26 | Friday    | U.S. Policy Options for Pharma                         |
| Session 2.7  | 10/29 | Monday    | Presentations and discussion                           |
| <b>Unit 3. The US Health Care System</b>   |       |           |  |
| <p>The US has a difficult time agreeing about health care reform. The Affordable Care Act was universally panned until the Republicans tried to replace it, when it became more popular. Why is health reform so difficult in the US? What are the options for reform? In this unit, we will explore several factors:</p> <p>(1) The history of health reform in the US and other (rich) countries [10/31-11/7];</p> <p>(2) The issues that reform must address (costs, access, and quality) [11/16];</p> <p>(3) The challenges that policy faces when it has only imperfect instruments to influence patients and providers [11/19-11/26];</p> <p>(4) Social determinants of health [11/30].</p> <p>Along the way, we will also look in detail at how social scientists draw conclusions from data [11/14].</p> |       |           |  |
| Session 3.1  | 10/31 | Wednesday | Introduction to Health Systems                         |
| No Class   | 11/2  | Friday    |  |
| Session 3.2  | 11/5  | Monday    | Western Health Systems                                 |
| Session 3.3  | 11/7  | Wednesday | The Affordable Care Act                                |
| No Class   | 11/9  | Friday    |  |
| No Class   | 11/12 | Monday    | <i>Veterans Day</i>                                    |
| Session 3.4  | 11/14 | Wednesday | Statistical Interlude: Relationships Between Variables |
| Session 3.5  | 11/16 | Friday    | Quality of Medical Care in America                     |
| Session 3.6  | 11/19 | Monday    | Consumerism  |
| No Class   | 11/21 | Wednesday | <i>Thanksgiving Weekend</i>                            |
| No Class   | 11/23 | Friday    | <i>Thanksgiving Weekend</i>                            |
| Session 3.7  | 11/26 | Monday    | Provider Payment Reform                                |
| Session 3.8  | 11/28 | Wednesday | Social Determinants of Health                          |
| No Class   | 11/30 | Friday    |  |
| Session 3.9  | 12/3  | Monday    | Presentations and Discussion                           |
|  |       |           |  |
| Wrap up  | 12/5  | Wednesday | Informal class get together                            |



## DETAILED COURSE SCHEDULE

|       |     |                              |
|-------|-----|------------------------------|
| Intro | 9/5 | A Tour of the World's Health |
|-------|-----|------------------------------|

### Intro Learning Objectives

**Upon completion of this class, you should be able to:**

- Discuss the relationship between health and development (aka the 'Preston Curve')
- Identify the successes (China and India) and failures (sub-Saharan Africa, Russia, the US) in world health status
- Understand the importance of HIV/AIDS in world health
- Describe the major forces shaping health: (a) the disease environment; (b) medicine; (c) behaviors; (d) health systems; (e) the environment.

### Intro Assignments

#### Read or Watch

**Article.** Bardhan, Pranab. "[The State of Health Services in China and India: A Larger Context](#)," Health Affairs, 2008, 27(4): 933-936.

**Article.** Cutler, David, et al., "[The Determinants of Mortality](#)," J Econ Per, 2006, 20(3), 97-120 (focus on p. 106-111).

#### Explore, Engage or Interact

**Web Interactive.** Play around with [gapminder](#)

#### Write, Solve, or Do

**No Problem Set.**



## Unit 1. HIV/AIDS

|             |     |                         |
|-------------|-----|-------------------------|
| Session 1.1 | 9/7 | The Epidemiology of HIV |
|-------------|-----|-------------------------|

### Session 1.1 Learning Objectives

Upon completion of this class, you should be able to:

- Describe (at a high level) the basic science of HIV/AIDS and why a cure is so difficult
- Understand the worldwide prevalence of HIV, especially in sub-Saharan African countries
- Discuss the role of prevention and treatment in addressing HIV

### Session 1.1 Pre-Class Assignment

**Video.** Iwasa, Janet, [Why it's so Hard to Cure HIV/AIDS](#).

### Session 1.1 Assignments

#### Read or Watch

**Watch.** Rosling, Hans, [Insights on HIV, in Stunning Data Visuals](#), TED 2018.

**Article.** Avert, "[Women and Girls, HIV and AIDS](#)," July 27, 2017.

**Article.** Choi, Daniella, "[Transactional Sex: Women, Poverty, and AIDS](#)," Center for Strategic and International Studies, August 11, 2011.

**Article.** Fetti, Jade, et al. "[Global Epidemiology of HIV](#)," Infect Dis Clin North Am, 2014, 28(3): 323–337.

**Fact Sheet.** NIH, [HIV Basics](#).

#### Explore, Engage or Interact (Optional)

**Web Interactive.** Iwasa, Janet [Science of HIV](#).

**Infographic.** [Interactive Global HIV/AIDS Timeline](#). Henry J Kaiser Family Foundation. July 2018.

**(If you are really into the science) Primer/Article.** Deeks Steven G., et al., "[HIV Infection](#)." Nature Reviews Disease Primers 2015; 1: 15035.

#### Write, Solve, or Do

**No Problem Set.**

|             |      |                        |
|-------------|------|------------------------|
| Session 1.2 | 9/12 | Economic Impact of HIV |
|-------------|------|------------------------|

### Session 1.2 Learning Objectives

Upon completion of this class, you should be able to:

- Understand the economic impacts of HIV: direct effect on HIV+ individuals; effects on family decision-making; effects on economic growth
- Evaluate the evidence on each domain
- Discuss particularly the issue of AIDS orphans

| Session 1.2 Assignments         |   |
|---------------------------------|---|
| <b>Read or Watch</b>            |   |
| <b>Overall economic impact</b>  |   |
|                                 | <b>Article.</b> Beresford, Belinda, “ <a href="#">AIDS Takes an Economic and Social Toll</a> ,” Africa Recovery, June 2001, 19-23.  |
|                                 | <b>Article.</b> Stover, John, and Lori Bollinger, “ <a href="#">The Economic Impact of AIDS</a> ,” March 1999, the Policy Project.  |
|                                 | <b>Article.</b> World Health Organization, Commission on Macroeconomics and Health, “Channels of Influence from Disease to Economic Development,” <a href="#">Macroeconomics and Health: Investing in Health for Economic Development</a> , 2001, p. 30-40. |
| <b>AIDS Orphans</b>             |   |
|                                 | <b>Article.</b> Unicef, <a href="#">Africa’s Orphaned and Vulnerable Generations: Children Affected by AIDS</a>   |
| <b>Read or Watch (Optional)</b> |   |
|                                 | <b>(More advanced) Article.</b> Dixon, Simon, Scott McDonald, and Jennifer Roberts. “ <a href="#">The Impact of HIV and AIDS on Africa’s Economic Development</a> ,” BMJ, 2002, 324(7331): 232–234.   |
| <b>Write, Solve, or Do</b>      |   |
|                                 | <b>No Problem Set.</b>  |

|             |      |                    |
|-------------|------|--------------------|
| Session 1.3 | 9/17 | Modeling Epidemics |
|-------------|------|--------------------|

| Session 1.3 Learning Objectives  |  |
|--|--|
| <b>Upon completion of this class, you should be able to:</b>   |  |
| <ul style="list-style-type: none"> <li>Understand the dynamics of an epidemic, including SIR (susceptible, infectious, recovered) models</li> <li>Describe when a disease becomes an epidemic</li> <li>Discuss the difference between concentrated and generalized epidemics</li> <li>Highlight the high risk populations for HIV</li> </ul> |  |

| Session 1.3 Pre-Class Assignment |  |
|----------------------------------|--|
|                                  | <b>Video.</b> Innocence for Sale, <a href="#">Part 1</a> , <a href="#">Part 2</a> , <a href="#">Part 3</a> . |
|                                  | <b>Video.</b> Cutler, D. <a href="#">What is an Epidemic?</a> and <a href="#">Dynamics of an Epidemic</a> .  |

| Session 1.3 Assignments |  |
|-------------------------|--|
| <b>Read or Watch</b>    |  |
|                         | <b>Article.</b> Avert, “ <a href="#">Sex Workers, HIV and AIDS</a> ,” July 31, 2017.   |
|                         | <b>Article.</b> Coggon, D, Geoffrey Rose, and David JP Barker, “ <a href="#">Chapter 2: Quantifying Disease in Populations</a> ,” in <i>Epidemiology for the Uninitiated</i> , 2017. |
|                         | <b>Article.</b> UNAIDS, “ <a href="#">What are Different Epidemiological Scenarios?</a> ” 2017.  |

|                                    |   |
|------------------------------------|---|
|                                    | <b>Video.</b> Honigscaum, Mark, <a href="#">How Pandemics Spread</a> . TEDEd.   |
| <b>Explore, Engage or Interact</b> |   |
|                                    | <b>Modeling.</b> <a href="#">Epidemix</a> .   |
|                                    | <b>Infographic.</b> Information is Beautiful, <a href="#">The Microbe-scope: Infectious Diseases in Context</a> , 2016.   |
| <b>Read or Watch (Optional)</b>    |   |
|                                    | <b>(More advanced) Article.</b> Cassels, Susan, et al. <a href="#">Mathematical Models for HIV Transmission Dynamics: Tools for Social and Behavioral Science Research</a> . J AIDS 2008; 47(Suppl 1): S34-S39. |
| <b>Write, Solve, or Do</b>         |   |
|                                    | <b>Problem Set 1 posted.</b>  |

|                    |      |                                  |
|--------------------|------|----------------------------------|
| <b>Session 1.4</b> | 9/21 | Addressing HIV in Poor Countries |
|--------------------|------|----------------------------------|

| Session 1.4 Learning Objectives  |  |
|--|--|
| <b>Upon completion of this class, you should be able to:</b>   |  |
| <ul style="list-style-type: none"> <li>Describe the world's response to HIV historically and currently, including the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs)</li> <li>Discuss the tradeoffs between general and specific targets</li> <li>Understand the key critiques of HIV targets, including crowding out other valuable services and conflict over aid</li> </ul> |  |

| Session 1.4 Assignments                       |   |
|---|---|
| <b>Read or Watch</b>                          |   |
| <i>The birth of global health</i>             |   |
|   | <b>Article.</b> Brandt, Allan M. " <a href="#">How AIDS Invented Global Health</a> ." N Engl J Med 2013; 368:2149-2152.           |
| <i>Setting targets</i>                        |   |
|   | <b>Article.</b> <a href="#">Global HIV Targets</a> , June 6 2017.   |
|   | <b>Article.</b> Piot, Peter, et al., " <a href="#">Defeating AIDS – Advancing Global Health</a> ," The Lancet, 2015,386: 171-218. |
| <i>Critiques</i>                              |   |
|   | <b>Article.</b> Garrett, Laurie, " <a href="#">The Challenge of Global Health</a> ," Foreign Affairs, January/February 2007.      |
|   | <b>Article.</b> Kristof, Nicholas D., " <a href="#">Aid: Can It Work?</a> " New York Review of Books, October 5, 2006.            |
| <b>Explore, Engage or Interact (Optional)</b> |   |
|   | <b>Fact Sheet.</b> Kaiser Family Foundation, <a href="#">The Global Fund</a> , May 2018.  |
| <b>Write, Solve, or Do</b>                    |   |
|   | <b>Problem Set 1 in progress.</b>   |

|             |      |                                       |
|-------------|------|---------------------------------------|
| Session 1.5 | 9/24 | The HIV Epidemic in the United States |
|-------------|------|---------------------------------------|

### Session 1.5 Learning Objectives

|   |
|---|
| <p><b>Upon completion of this class, you should be able to:</b></p> <ul style="list-style-type: none"> <li>Understand the intersection between social movements (disease activists) and science (FDA, NIH)</li> <li>Understand the lingering HIV epidemic: vulnerable people in poor areas</li> <li>Discuss the public health approach to HIV and current efforts differ from that</li> </ul> |
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### Session 1.5 Assignments

|  |   |
|--|---|
| <b>Read or Watch</b>                                     |   |
| <b>HIV and Science</b>                                   |   |
|  | <b>Article.</b> Crimp, Douglas, “ <a href="#">Before Occupy: How AIDS Activists Seized Control of the FDA in 1988</a> ,” The Atlantic, December 6, 2011.                          |
|  | <b>Article.</b> <a href="#">World AIDS Day: how AIDS activists changed medical research</a> , The Guardian, December 1, 2013.   |
| <b>The Current Epidemic</b>                              |   |
|  | <b>Article.</b> Villarosa, Linda, “ <a href="#">America’s Hidden HIV Epidemic</a> ,” New York Times Magazine, June 6, 2017.   |
|  | <b>Video.</b> <a href="#">Isolation and stigma sustain HIV in the South: ‘It’s like we’re on a deserted island’</a> June 16, 2018   PBS NewsHour William Brangham and Jason Kane. |
|  | <b>Article.</b> Frieden Thomas R., et al. “ <a href="#">Applying Public Health Principles to the HIV Epidemic — How Are We Doing?</a> ” N Engl J Med 373;23 December 3, 2015.     |
| <b>Explore, Engage, or Interact</b>                      |   |
|  | <b>Digital Gallery.</b> <a href="#">Surviving and Thriving: AIDS, Politics, and Culture</a> .   |
| <b>Read or Watch (Optional, but strongly encouraged)</b> |   |
|  | <a href="#">And the Band Played On</a> (Movie).   |
|  | <a href="#">How to Survive a Plague</a> (Documentary).  |
| <b>Write, Solve, or Do</b>                               |   |
|  | <b>Problem Set 1 due.</b>   |
|  | <b>Unit Assignment 1 posted.</b>  |

|             |      |               |
|-------------|------|---------------|
| Session 1.6 | 9/26 | HIV Successes |
|-------------|------|---------------|

### Session 1.6 Learning Objectives

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|--|
| <p><b>Upon completion of this class, you should be able to:</b></p> <ul style="list-style-type: none"> <li>Describe the key features of HIV success stories in particular countries (Uganda, Thailand)</li> <li>Understand trends in global pharmaceutical availability, pricing, and usage, including the role of international organizations in fostering those trends.</li> </ul> |
|--|

| Session 1.6 Assignments   |  |
|---|--|
| <b>Read or Watch</b>  |  |
| <b>Uganda (country profile)</b>                                 |  |
|   | <b>Article.</b> Grabowski M. Kate, et al., " <a href="#">HIV Prevention Efforts and Incidence of HIV in Uganda.</a> " N Engl J Med 2017;377(22):2154-2166.   |
|   | <b>Article.</b> Kron, Josh, " <a href="#">In Uganda, an AIDS Success Story Comes Undone,</a> " New York Times, August 2, 2012, A5.   |
| <b>Thailand</b>   |  |
|   | <b>Teaching Case.</b> Charumilind, Sarun, et al. HIV in Thailand: The 100% Condom Program. Harvard Medical School, Brigham and Women's Hospital 2011. <a href="#">Parts A</a> and <a href="#">B</a> .  |
| <b>Access to Medications</b>                                    |  |
|   | <b>Article.</b> Dugger, Celia W., " <a href="#">Clinton Foundation Announces A Bargain on Generic AIDS Drugs,</a> " New York Times, May 9, 2007, p. A9.  |
|   | <b>Article.</b> Fauci, Anthony S. and Robert W. Eisinger, " <a href="#">PEPFAR – 15 Years and Counting the Lives Saved.</a> " N Engl J Med 2018;378(4):314-316.  |
| <b>Explore, Engage or Interact (Optional) – Other Countries</b> |  |
|   | <b>Botswana Profile.</b> and <b>Case.</b> Glassman A, Temin M. " <a href="#">Botswana's Mass Antiretroviral Therapy Program. Millions Saved: New Cases of Proven Success in Global Health.</a> " Center for Global Development 2016.   |
|   | <b>South Africa Profile, Video.</b> <a href="#">How South Africa, the Nation Hardest-Hit by HIV, Plans to "End AIDS".</a> William Brangham, Jason Kane, Jon Cohen. July 22, 2016   PBS NewsHour 9:49; and <b>Case.</b> Madore A et al. <a href="#">Political Leadership in South Africa: HIV.</a> Harvard Medical School, Brigham and Women's Hospital 2015. |
|   | <b>Rwanda Profile,</b> and <b>Video.</b> <a href="#">How Rwanda, Once Torn by Genocide, Became a Global Anti-AIDS Leader.</a> William Brangham, Jon Cohen, Jason Kane. 2016. 9:16  |
|   | <b>Kenya, Video.</b> <a href="#">Why a Kenyan Island May Teach the World How to Beat AIDS.</a> William Brangham, Jason Kane, Jon Cohen. July 21, 2016   PBS NewsHour 10:59 , and <b>Case.</b> Rosenberg TJ et al. <a href="#">Voluntary Medical Male Circumcision in Nyanza Province, Kenya.</a> Harvard Medical School, Brigham and Women's Hospital 2012.  |
| <b>Write, Solve, or Do</b>                                      |  |
| <b>Unit Assignment 1 in progress</b>                            |  |

|             |      |                             |
|-------------|------|-----------------------------|
| Session 1.7 | 10/1 | HIV Failures and Challenges |
|-------------|------|-----------------------------|

| Session 1.7 Learning Objectives   |
|---|
| <p><b>Key points:</b></p> <p><b>Upon completion of this class, you should be able to:</b></p> <ul style="list-style-type: none"> <li>Show how stigma adversely affects treatment of the HIV population (South Africa, Russia, the Middle East)</li> </ul> |

- Discuss the epidemiological problems in HIV: Drug resistant strains, TB co-infection)
- Understand the key financial challenges facing the world (overall funds) and specific countries (middle income countries) in fighting HIV

## Session 1.7 Assignments

### Read or Watch

#### Denialism in South Africa

**Article.** Specter, Michael, "[The Denialists](#)," The New Yorker, March 12, 2007.

#### Russia

**Perspective.** Beyrer, Chris, et al. [The Expanding Epidemic of HIV-1 in the Russian Federation](#). PLoS Med 2017;14(11): e1002462.

#### Nigeria (country profile)

**Video.** [Why Nigeria Has More HIV-Positive Infants Than Anywhere Else](#). William Brangham and Jason Kane. June 14, 2018 | PBS NewsHour.

### Scientific and Technical Challenges: TB Co-infection, drug resistance, scale up, resources

**Fact Sheet.** [HIV and Opportunistic Infections, Coinfections, and Conditions: Fact Sheet on HIV-TB Coinfection](#). June 2018.

**Article.** Beyrer, Chris and Anton Pozniak, [HIV Drug Resistance – An Emerging Threat to Epidemic Control](#). N Engl J Med 2017;377(17):1605-1607.

**Article.** Ellman, Tom, "[Demedicalizing AIDS Prevention and Treatment in Africa](#)," N Engl J Med, 2015, 372: 303-305.

**Article.** Garrett, Laurie, "[The Next AIDS Pandemic](#)," Foreign Policy, July 26, 2017.

**Article.** Havlir, Diane, and Chris Beyrer, "[The Beginning of the End of AIDS?](#)" N Engl J Med, 2012, 367: 685-687.

### Write, Solve, or Do

**Unit Assignment 1 due (10/2, 9 am).**

|             |      |                             |
|-------------|------|-----------------------------|
| Session 1.8 | 10/3 | Presentation and Discussion |
|-------------|------|-----------------------------|

## Session 1.8 Learning Objectives

### Unit Assignment:

What should the world do to end the problem of HIV/AIDS?

**Guest.** [Rifat Atun](#), Professor, Harvard Chan School of Public Health; former member of the Executive Team, The Global Fund to Fight AIDS, TB, and Malaria

## Session 1.8 Assignments

### Read or Watch

**Article.** Gates, Bill, "[The Next Epidemic – Lessons from Ebola](#)," N Engl J Med, 2015, 372:1381-1384.

## Unit 2: Pharmaceutical Policy

|             |       |                            |
|-------------|-------|----------------------------|
| Session 2.1 | 10/10 | The Pharmaceutical Problem |
|-------------|-------|----------------------------|

### Session 2.1 Learning Objectives

Upon completion of this class, you should be able to:

- Understand the value of pharmaceuticals
- Understand the costs of pharmaceuticals from two perspectives: production and development; and reimbursement
- Be aware of trends in pharmaceutical costs over time

### Session 2.1 Pre-Class Assignment

**Video (or read transcript).** CBS News, "[The Cost of Cancer Drugs](#)," October 5, 2014.

### Session 2.1 Assignments

#### Read or Watch

**Article.** Kremer, Michael, "[Pharmaceuticals and the Developing World](#)," J of Econ Per, 2002, 16(4): 67-90.

**Chart.** PhRMA, [The Lengthy, Costly, and Uncertain Biopharmaceutical Research and Development Process](#), 2016. **(Optional).** Look through the rest of the chartpack.

#### Example: Cancer

**Article.** Bach, Peter B., et al. "[In cancer care, cost matters](#)," New York Times. October 15, 2012; A25.

**Article.** Experts in Chronic Myeloid Leukemia, "[The price of drugs for chronic myeloid leukemia \(CML\) is a reflection of the unsustainable prices of cancer drugs: from the perspective of a large group of CML experts](#)," Blood, 2013, 121:4439-4442.

#### Write, Solve, or Do

**No Problem Set.**

|             |       |   |
|-------------|-------|---|
| Session 2.2 | 10/12 | Demand and Supply: The Economics of Pharmaceuticals |
|-------------|-------|---|

### Session 2.2 Learning Objectives

Upon completion of this class, you should be able to:

- Understand the demand and supply of (existing) pharmaceuticals
- Understand equilibrium price and quantity in pharmaceutical markets
- Compare and contrast regulation of pharmaceuticals in different countries

### Session 2.2 Pre-Class Assignment

**Videos.** The Economics of Pharma, [Part 1](#) and [Part 2](#).



| Session 2.2 Assignments             |   |
|-------------------------------------|---|
| <b>Read or Watch</b>                |   |
|                                     | <b>Video.</b> St. Louis Fed, Economic Lowdown Video Series, <a href="#">Episode 1 – Supply</a> , <a href="#">Episode 2 – Demand</a> . |
|                                     | <b>Video.</b> <a href="#">Fixed v. Variable costs</a>   |
| <b>Explore, Engage, or Interact</b> |   |
|                                     | <b>Webinfo,</b> Memorial Sloan Kettering Cancer Center, <a href="#">Drug Abacus</a>   |
| <b>Read or Watch (Optional)</b>     |   |
|                                     | <b>Video.</b> St. Louis Fed, Economic Lowdown Video Series, <a href="#">Episode 3 – Equilibrium</a> .                                 |
| <b>Write, Solve, or Do</b>          |   |
|                                     | <b>Problem set 2 posted.</b>  |

|                    |       |                                    |
|--------------------|-------|------------------------------------|
| <b>Session 2.3</b> | 10/15 | Pricing Regulation, and Innovation |
|--------------------|-------|------------------------------------|

| Session 2.3 Learning Objectives   |  |
|---|--|
| <p><b>Upon completion of this class, you should be able to:</b></p> <ul style="list-style-type: none"> <li>• Understanding the dynamics of research and development, including the roles of pricing, patent policy, and market competition.</li> <li>• Contrast optimal pricing and regulation in a static (non-changing) and a dynamic market.</li> <li>• Discuss empirical evidence on the impact of pricing on innovation</li> </ul> |  |

| Session 2.3 Assignments    |  |
|----------------------------|--|
| <b>Read or Watch</b>       |  |
|                            | <b>Article.</b> Frakt, Austin, “ <a href="#">Why Preventing Cancer is Not the Priority in Drug Development</a> ,” New York Times, Upshot, December 25, 2015.       |
|                            | <b>Article.</b> Scherer, F.M., “ <a href="#">The Link Between Gross Profitability and Pharmaceutical R&amp;D Spending</a> ,” Health Affairs, 2001, 20(5), 216-220. |
| <b>Write, Solve, or Do</b> |  |
|                            | <b>Problem Set 2 in progress.</b>  |

|                    |       |  |
|--------------------|-------|--|
| <b>Session 2.4</b> | 10/19 | Policy Options for Low and Middle Income Countries |
|--------------------|-------|--|

| Session 2.4 Learning Objectives   |  |
|---|--|
| <p><b>Upon completion of this class, you should be able to:</b></p> <ul style="list-style-type: none"> <li>• Understand the challenges to adequate access to medications in low and middle income countries, with special emphasis on pricing and regulatory issues</li> <li>• Identify issues of compulsory licensing and debate the pros and cons of this policy</li> </ul> |  |

- Understand the importance of ‘missing medications’ for people in these countries.

## Session 2.4 Assignments

### Read or Watch

**Article.** Wirtz, Veronika J., et al., “[Essential Medicines for Universal Health Coverage](#),” the Lancet, 2017, 389(10067): 403-476. (long)

**Video.** ‘t Hoen, Ellen, [Why You Can’t Get the Lifesaving Drugs You Need](#), Ted, 2012.

### Write, Solve, or Do

**Problem Set 2 due.**

**Unit Assignment 2 posted.**

|             |       |                         |
|-------------|-------|-------------------------|
| Session 2.5 | 10/24 | The New Pharma Industry |
|-------------|-------|-------------------------|

## Session 2.5 Learning Objectives

**Upon completion of this class, you should be able to:**

- Understand changes in how R&D is occurring over time
- Discuss possible reforms to FDA processes
- Discuss possible changes to the payment for pharmaceuticals

**Guest.** Ariel Stern, Assistant Professor of Business Administration and Hellman Faculty Fellow in the Technology and Operations Management Unit at Harvard Business School.

## Session 2.5 Pre-Class Assignment

**Article.** Stern, Ariel D., et al., “[How Economics Can Shape Precision Medicines](#),” Science, 2017, 355(6330):1131-1133.

## Session 2.5 Assignments

### Read or Watch

**Article (skim).** MIT New Drug Development Paradigms Initiative, [FoCUS: Financing and Reimbursement of Cures in the US](#), 2018.

### Read or Watch (Optional)

(If you are really interested and have some economics) **Article.** Chandra Amitabh, et al., [Characterizing the Drug Development Pipeline for Precision Medicines](#),” 2018.

### Write, Solve, or Do

**Unit Assignment 2 in progress.**

|             |       |                                |
|-------------|-------|--------------------------------|
| Session 2.6 | 10/26 | U.S. Policy Options for Pharma |
|-------------|-------|--------------------------------|

### Session 2.6 Learning Objectives

Upon completion of this class, you should be able to:

- Evaluate four areas of reform, including the benefits and costs of each: pricing policy; increasing competition; value-based payments; and reduced R&D costs

### Session 2.6 Assignments

#### Read or Watch

**Article.** Bach, Peter B., “[Indication Specific Pricing for Cancer Drugs](#),” JAMA, 2014,312(16): 1929-1930.

**Article.** Conti, Rena M., and Meredith B. Rosenthal, “[Pharmaceutical Policy Reform — Balancing Affordability with Incentives for Innovation](#),” N Engl J Med, 2016, 374:703-706

**Article.** Conti, Rena M., et al., “[Pharmaceuticals and the Public Health](#),” JAMA, 2016; 316(2): 2083-2084.

**Article.** Rawlings, Michael D., “[NICE Work – Providing Guidance to the British National Health Service](#),” N Engl J Med, 2004, 351(14), 1383-5.

**Article.** Van Nuys, Karen, et al., “[Reining in Pharmaceutical Costs](#),” Brookings-Schaeffer Center, 2017.

#### Dig Deeper (Three Policy Proposals)

**Article.** Darrow, Jonathan J., and Aaron S. Kesselheim, “[Promoting Competition to Address Pharmaceutical Prices](#),” Health Affairs Policy Options Paper, March 15, 2018.

**Article.** Pearson, Steven D., et al., [Policy Strategies for Aligning Price And Value For Brand-Name Pharmaceuticals](#), Health Affairs Policy Options Paper, March 15, 2018.

**Article.** Duetzina, Stacie, et al., “[Improving The Affordability Of Specialty Drugs By Addressing Patients' Out-Of-Pocket Spending](#),” Health Affairs Policy Options Paper, March 15, 2018.

#### Write, Solve, or Do

**Unit Assignment 2 due.**

|             |       |                             |
|-------------|-------|-----------------------------|
| Session 2.7 | 10/29 | Presentation and discussion |
|-------------|-------|-----------------------------|

### Session 2.7 Learning Objectives

You are the CEO of PharmaInnovation, Inc (PII). PII has designs to break into the pharmaceutical industry. It has close ties with Harvard University faculty but doesn't have an active product. The only requirement for the company is that it build a business in the area of pharmaceuticals. What should you do?

**Guest.** Neal Masia, Vice President, Patient and Health Impact Centers of Excellence; and Chief Economist, Pfizer.

## Unit 3: US Health Care Reform

|             |       |                                |
|-------------|-------|--------------------------------|
| Session 3.1 | 10/31 | Introduction to Health Systems |
|-------------|-------|--------------------------------|

### Session 3.1 Learning Objectives

**Upon completion of this class, you should be able to:**

- Describe a health system overall, and in terms of functional components
- Compare and contrast health systems around the world
- Identify the major challenges in health systems in poor countries (developing a system) and rich countries (cost, access, quality)
- Identify the parts of the medical care triad and the functions in the triad.

### Session 3.1 Pre-Class Assignment

**Video.** University of Maryland, [Health systems video](#).

**Video.** Kaiser Family Foundation, [Health of the Healthcare System](#)

### Session 3.1 Assignments

#### Read or Watch

**Article.** Mills, Anne, “[Health Care Systems in Low- and Middle-Income Countries](#),” N Engl J Med, 2014; 370(6), 552-557.

**Article.** World Health Organization, [Introduction and Health Systems Challenges and Opportunities](#), in *Everybody's Business: Strengthening Health Systems to Improve Health Outcomes*, Geneva: World Health Organization, 2007.

#### Explore, Engage or Interact (Optional)

**Weblink.** The Commonwealth Fund. [International Health Care System Profiles](#).

#### Write, Solve, or Do

**No Problem Set.**

|             |      |                        |
|-------------|------|------------------------|
| Session 3.2 | 11/5 | Western Health Systems |
|-------------|------|------------------------|

### Session 3.2 Learning Objectives

**Upon completion of this class, you should be able to:**

- Discuss the development of western health systems in terms of coverage, cost constraints, and quality
- Identify similarities and differences in health systems in major countries.
- Understand major differences between the US and ‘European’ countries

## Session 3.2 Assignments

### Read or Watch

- Article.** Cutler, David, “[Equality, Efficiency, and Market Fundamentals: The Dynamics of International Medical Care Reform](#),” J Econ Lit, 2002, 40(3), 881-906.
- Article.** Fuchs, Victor, “[Major Trends in the U.S. Health Economy Since 1950](#),” N Eng J Med, 2012, 366, 973-977.
- Article.** Newhouse, Joseph P., “[Medical Care Costs: How Much Welfare Loss?](#)” J Econ Per, 1992, 6(3), 13-29.
- Article.** Oberlander, Jonathan, “[Unfinished Journey — A Century of Health Care Reform in the United States](#),” N Engl J Med, 2012, 367, 585-590.

### Write, Solve, or Do

**No Problem Set.**

|             |      |                         |
|-------------|------|-------------------------|
| Session 3.3 | 11/7 | The Affordable Care Act |
|-------------|------|-------------------------|

## Session 3.3 Learning Objectives

### Upon completion of this class, you should be able to:

- Identify the major features of the Affordable Care Act (ACA), including those parts affecting coverage and costs
- Understand the major legal and political obstacles to the ACA
- Understand the major alternatives to the ACA
- Describe trends in public support for various components of the ACA and its proposed alternatives

**Guest.** Jason Furman, Professor of the Practice, Harvard Kennedy School; former Chair, Council of Economic Advisors, President Obama.

## Session 3.3 Pre-Class Assignment

**Interactive.** Choose a (US) state you might live in when you are 27. Pretend you are going to buy an individual policy through [www.healthcare.gov](http://www.healthcare.gov) or the state equivalent. Decide which policy you would buy – but **do not** buy it.

## Session 3.3 Assignments

### Read or Watch

- Op-Ed.** Cutler, David, “[Should Healthy People Have to Pay for Chronic Illnesses?](#)” Washington Post, March 17, 2017.
- Columns.** Reinhardt, Uwe, “[Is Health Care Special?](#)”, New York Times Economix Blog, August 6, 2010; “[Health Care, Uncertainty, and Morality](#),” August 13, 2010.
- Video.** [Rebekah Gee on Health Care Policy](#), 2017.

|  |  |
|--|--|
|  | <b>Video.</b> Kaiser Family Foundation, <a href="#">Health Reform Hits Main Street</a> , 2010. |
|  | <b>Write, Solve, or Do</b>   |
|  | <b>No Problem Set.</b>   |

|                    |       |  |
|--------------------|-------|--|
| <b>Session 3.4</b> | 11/14 | Statistical Interlude: Relationships Between Variables |
|--------------------|-------|--|

### Session 3.4 Learning Objectives

**Upon completion of this class, you should be able to:**

- Understand a regression equation and whether a relationship is ‘statistically significant’
- Understand the difference between correlation and causation
- Be able to critique studies for statistical accuracy and whether the conclusions are appropriate.

### Session 3.4 Pre-Class Assignment

**Videos** on statistics and regression, [Introduction](#), [Part 1](#), [Part 2](#), [Part 3](#).

### Session 3.4 Assignments

#### Read or Watch

#### *Estimating and Interpreting regressions*

**Slides.** Penn State, [Simple Linear Regression](#), especially sections 1.1-1.3 (don’t get caught up in the math!)

#### *Correlation v. causality*

**Article.** Lo, Nathan C., et al. “[Abstinence Funding Was Not Associated With Reductions in HIV Risk Behavior in Sub-Saharan Africa](#),” Health Affairs, 35(5), May 2016.

**Video.** Smeets, Ionica, [The Danger of Mixing Up Correlation and Causality](#), Tedx

#### Write, Solve, or Do

**Problem Set 3 posted.**

|                    |       |                                    |
|--------------------|-------|------------------------------------|
| <b>Session 3.5</b> | 11/16 | Quality of Medical Care in America |
|--------------------|-------|------------------------------------|

### Session 3.5 Learning Objectives

**Upon completion of this class, you should be able to:**

- Understand the dimensions of quality (STEEP)
- Understand areas in which quality is low, including overuse of care, underuse of care, and misuse of care.
- Understand the total amount of medical spending estimated to go to low quality
- Identify the major proposals for addressing quality issues

| Session 3.5 Assignments            |  |
|------------------------------------|--|
| <b>Read or Watch</b>               |  |
|                                    | <b>Article.</b> Berwick, Donald, “ <a href="#">A User’s Manual for the IOM’s ‘Quality Chasm’ Report</a> ,” Health Affairs, 2002, 21(3), 80-90; or see the <b>Video.</b> <a href="#">Crossing the Quality Chasm</a> , coursera.   |
|                                    | <b>Article.</b> Gawande, Atul, “ <a href="#">The Cost Conundrum</a> ,” The New Yorker, June 1, 2009.   |
|                                    | <b>Article.</b> Gawande, Atul, “ <a href="#">Overkill</a> ,” The New Yorker, May 11, 2015  |
|                                    | <b>Article.</b> Papanicolas, Irene et al. “ <a href="#">Health Care Spending in the United States and Other High-Income Countries</a> ,” JAMA, March 13, 2018 319(10):1024–39.   |
|                                    | <b>Articles (skim).</b> Fisher, Elliott S., et al. “ <a href="#">The Implications of Regional Variations in Medicare Spending. Part 1: The Content, Quality, and Accessibility of Care</a> ,” and “ <a href="#">Part 2: Health Outcomes and Satisfaction with Care</a> ,” Annals of Internal Medicine, 138(4), 2003. |
| <b>Explore, Engage or Interact</b> |  |
|                                    | <b>Interactive Data.</b> Kaiser Family Foundation, <a href="#">Health System Spending</a> .  |
| <b>Write, Solve, or Do</b>         |  |
|                                    | <b>Problem Set 3 in progress.</b>  |

|             |       |             |
|-------------|-------|-------------|
| Session 3.6 | 11/19 | Consumerism |
|-------------|-------|-------------|

| Session 3.6 Learning Objectives  |
|--|
| <p><b>Upon completion of this class, you should be able to:</b></p> <ul style="list-style-type: none"> <li>• Understand the major dimensions of consumerism, in choice of insurance plans and choice of medical care providers.</li> <li>• Discuss the tradeoff between choice and selection in insurance</li> <li>• Summarize the evidence on consumer responses to choice settings, in particular whether such decisions are ‘rational’ or not.</li> </ul> |

| Session 3.6 Assignments  |
|--|
| <b>Read or Watch</b>   |
| <b>Article.</b> Huskamp, Haiden A., et al., “ <a href="#">The Effect of Incentive-Based Formularies on Prescription-Drug Utilization and Spending</a> ,” N Engl J Med, 2003; 349: 2224-2232.                             |
| <b>Article.</b> Rosenthal, Meredith, “ <a href="#">What Works in Market-Oriented Health Policy</a> ,” N Engl J of Med, 2009, 360(21): 2157-2160.   |
| <b>Article.</b> Cook, Robin, “ <a href="#">Decoding Health Insurance</a> ,” New York Times, May 22, 2005.  |
| <b>Explore, Engage or Interact (Optional)</b>  |
| (More advanced) <b>Article.</b> Swartz, Katherine, <a href="#">Cost Sharing: Effects on Spending and Outcomes</a> , Robert Wood Johnson Foundation, 2010.  |
| (Really more advanced, if you have had Ec10) <b>Article.</b> Einav, Liran, and Amy Finkelstein, “ <a href="#">Selection in Insurance Markets: Theory and Empirics in Pictures</a> ,” J of Econ Per, 2011, 25(1): 115-38. |
| <b>Write, Solve, or Do</b>   |
| <b>Problem Set 3 due.</b>  |



|                           |
|---------------------------|
| Unit Assignment 3 posted. |
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| Session 3.7 | 11/26 | Provider Payment Reform |
|-------------|-------|-------------------------|

### Session 3.7 Learning Objectives

Upon completion of this class, you should be able to:

- Understand the major types of provider reform, including financial incentives (salaried physicians, performance-based payment), professionalism, and tort reform
- Summarize the literature evaluating the impact of provider payment reform on the cost and quality of care

### Session 3.7 Assignments

#### Read or Watch

##### *Accountable Care Organizations*

**Article.** Chernew, Michael E., et al., "[Private-Payer Innovation in Massachusetts: The Alternative Quality Contract](#)," Health Affairs, 2011; 30(1):51-60.

**Article.** McWilliams, J. Michael, et al., "[Early Performance of Accountable Care Organizations in Medicare](#)," N Engl J Med, 2016; 374:2357-2366.

##### *Defensive medicine*

**Article.** Baicker, Katherine, et al., "[Malpractice Liability Costs and the Practice of Medicine in the Medicare Program](#)," Health Affairs, 2007, 26(3): 841-852.

##### *Professionalism*

**Article.** Pronovost, Peter J., et al., "[Preventing Bloodstream Infections: A Measurable National Success Story in Quality Improvement](#)," Health Affairs, 2011, 30(4): 628-634; and **Video.** [In the Interest of Patient Safety](#).

#### Write, Solve, or Do

Unit Assignment 3 in progress.

|             |       |                               |
|-------------|-------|-------------------------------|
| Session 3.8 | 11/28 | Social Determinants of Health |
|-------------|-------|-------------------------------|

### Session 3.8 Learning Objectives

Upon completion of this class, you should be able to:

- Describe the link between social status and health and the theories that explain such a link
- Identify specific social factors that influence health (housing policy, education policy, tax policy, etc.)

- Discuss the tradeoff between social and health care spending in dealing with vulnerable populations

### Session 3.8 Assignments

#### Read or Watch

**Article.** Chetty, Raj, et al., "[The Association Between Income and Life Expectancy in the United States, 2001-2014](#)," JAMA, 2016, 315(16): 1750-1766.

**Article.** Marmot, Michael, et al., "[Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health](#)," The Lancet, 2008, 372(9650): 1661-1669.

**Article.** Taylor, Lauren, et al., "[Leveraging the Social Determinants of Health: What Works?](#)" PLoS One, 2016; 11(8): e0160217.

**Video.** [Social Determinants of Health – an Introduction](#)

#### Write, Solve, or Do

**Unit Assignment 3 due.**

|                    |      |                             |
|--------------------|------|-----------------------------|
| <b>Session 3.9</b> | 12/3 | Presentation and discussion |
|--------------------|------|-----------------------------|

### Session 3.9 Learning Objectives

Write a memo advising the Trump Administration on what to do about health care. The memo is for the President and his senior advisors. They have a range of views about the ACA, ranging from marginally friendly to hostile. What advice would you give them?

**Guests.** Gina McCarthy, Professor of the Practice, T.H. Chan School of Public Health; former Administrator, Environmental Protection Agency, Obama Administration, 2013-2017.

Don Berwick, former President and CEO, Institute for Healthcare Improvement; Administrator, Center for Medicare and Medicaid Services, 2010-2011.

### Session 3.9 Assignments

#### Read or Watch

**Article.** Antos, Joe, James Capretta, and Gail Wilensky, "[Replacing the Affordable Care Act and Other Suggested Reforms](#)," JAMA, 2016; 315(13): 1325-1325.

**Article.** Cutler, David, "[How Congress Could Pass a Bipartisan Health Bill That People Actually Like](#)", Washington Post, June 30, 2017.

|                            |  |
|----------------------------|--|
|                            | <b>Article.</b> Obama, Barack, “ <a href="#">United States Health Care Reform: Progress and Next Steps</a> ,” JAMA, 2016, 316(5): 525-532.                                   |
|                            | <b>Article.</b> Physicians for a National Health Plan, “ <a href="#">Beyond the Affordable Care Act: A Physicians’ Proposal for Single-Payer Health Care Reform</a> ,” 2016. |
|                            | <b>Article.</b> Oberlander, Jonathan, “ <a href="#">The Republican War on Obamacare – What Has It Achieved?</a> ” N Engl J Med, 2018, 379, 703-705.                          |
| <b>Write, Solve, or Do</b> |  |
|                            | <b>No Problem Set.</b>   |

|                |      |                                      |
|----------------|------|--------------------------------------|
| <b>Wrap-up</b> | 12/5 | Last Class- Informal Class Gathering |
|----------------|------|--------------------------------------|