This is a course in the economics of health care. Topics will include health capital, global health, health insurance, productivity of medical spending, and medical care markets.

**Meeting:** Class is scheduled for Tuesday, Thursday, and Friday from 10:30 - 11:45 am. Class will generally meet twice per week, with a few exceptions. Check the meeting schedule carefully.

**Lecture Notes:** Class notes will be posted by the morning of the class on the class website: https://canvas.harvard.edu/courses/47780. You should download the notes and bring them to class.

**Seminar:** Students are encouraged to attend the weekly Health Economics seminar, Wed. 4:00 – 5:30. See https://www.bu.edu/econ/research/seminars/health-economics-seminar-papers/ for schedule and location.

**Grading:** There will be a one-day at home final exam during final exam period (50%), a 2-3 page research proposal due on the last day of reading period (25%), and three problem sets (25%).

**Reading:** I have indicated the readings that should be read before class (pre-class readings) and those that can be read at your leisure (supplemental readings). I have also indicated classic papers that you should be familiar with. The pre-class reading is generally a recent article on the topic of the day. We will discuss the methodology and findings of the article in class. I will cold call on students to discuss the pre-class readings. The supplemental readings are an important part of the class; I will indicate which ones you should pay particular attention to.
Economics 2465 Lecture Schedule

Tue  January 29     1. Health over Time and Around the World

**Health Capital**

Thu  January 31     No class
Fri  February 1     2. Health Capital

Tue  February 5     3. Health Behaviors
Thu  February 7     4. SES and Health
Fri  February 8     No class

**Health and Growth**

Tue  February 12    No class
Thu  February 14    5. HIV/AIDS
Fri  February 15    6. Disease and Development: Macro Studies

Tue  February 19    No class
Thu  February 21    7. Disease and Development: Micro Studies

**Health Systems**

Fri  February 22    8. Overview of Health Systems

Tue  February 26    9. Health Reform in High Income Countries
Thu  February 28    10. Optimal insurance I: The Demand Side
Fri  March 1        No class

Tue  March 5        11. Optimal insurance II: The Supply Side
Thu  March 7        12. Health insurance, utilization, and health I
Fri  March 8        No class

**Health Insurance**

Tue  March 12       13. Health insurance, utilization, and health II
Thu  March 14       14. Health insurance, utilization, and health III
Fri  March 15       No class

March 19           SPRING BREAK
March 21           SPRING BREAK
March 22           SPRING BREAK

Tue  March 26       15. Health care innovation
Thu  March 28       16. Disability insurance (with Nicole Maestas)
Fri  March 29       No class
Productivity Analysis
Tue  April 2  17. Productivity I
Thu  April 4  18. Productivity II
Fri  April 5  No class

Tue  April 9  19. Productivity III (with Amitabh Chandra)

Medical Care Markets
Thu  April 11  No class
Fri  April 12  20. Provider competition & Insurer-Provider Interactions I

Tue  April 16  21. Provider competition & Insurer-Provider Interactions II
Thu  April 18  22. Provider competition & Insurer-Provider Interactions III
Fri  April 19  No class

Tue  April 23  23. Insurance selection
Thu  April 25  24. Insurance competition
Fri  April 26  No class

Tue  April 30  25. Antitrust policy in health care (with Leemore Dafny)
A Note on Readings

Readings in health economics are in several journals:


**Field journals:** The major journal in the field is the *Journal of Health Economics*. There is also the *American Journal of Health Economics*.

**Medical journals:** Almost all medical journals publish health economics articles. The best are the *New England Journal of Medicine* and *JAMA*. Each will send you weekly summaries of what is in the journal if you wish. *Health Affairs* has a number of good articles on health care policy topics.

**Reference books:** There is no textbook in the field. The best collection is the *Handbook of Health Economics*. Volumes 1A and 1B were edited by Anthony Culyer and Joseph P. Newhouse and were published in 2000. Volume 2 was edited by Mark V. Pauly, Thomas G. McGuire and Pedro P. Barros and was published in 2011. You can find all the volumes here: [http://www.sciencedirect.com/science/handbooks/15740064](http://www.sciencedirect.com/science/handbooks/15740064). For an undergraduate introduction, try Sherman Folland, Allen Goodman, and Miron Stano, *The Economics of Health and Health Care*. Any edition is fine.
Lecture 1: Health over Time and Around the World

Key points:
• Health has improved enormously in recent centuries
• Health covaries positively with income, with interesting exceptions

Pre-class readings


Supplemental readings


I. Health Capital

Lecture 2: Health Capital

Key points:
- Health as a consumption and investment good
- Value of survival is linear in flow utility (not marginal utility)
- Health improvements are worth a lot

Pre-class readings


Supplemental readings


Lecture 3: Health Behaviors

Key points:
- Behaviors are a key ‘actual cause’ of death
- ‘Internalities’ are more important than externalities
- Models of behavior

Pre-class readings

**Supplemental readings**

*Models of Health Behaviors*


*Smoking*


*Obesity*


*Opioids*


**Interventions**


**Technology and Behaviors**


**Implications for Insurance Design**


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**Lecture 4: SES and Health**

<table>
<thead>
<tr>
<th>Key points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The ‘gradient’ in health</td>
</tr>
<tr>
<td>• Education is causally related to health</td>
</tr>
<tr>
<td>• The reason why is unclear, though may have to do with cognitive processing</td>
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</tbody>
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**Pre-class readings**


**Supplemental readings**


II. Health and Growth

Lecture 5: HIV/AIDS

<table>
<thead>
<tr>
<th>Key points:</th>
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<tbody>
<tr>
<td>The enormous impact of HIV/AIDS on world health</td>
</tr>
<tr>
<td>The impact of HIV on the economy</td>
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<tr>
<td>Why have behavioral changes not been larger?</td>
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### Pre-class readings


### Supplemental readings


Lecture 6: Disease and Development: Macro Studies

Key points:
• The channels by which disease and development might be linked
• The empirical impact of disease on development is difficult to determine

Pre-class readings


Supplemental readings


Lecture 7: Disease and Development: Micro Studies

Key points:
- There is a clear relation between disease and development in micro studies
- The impact is often smaller than macro studies suggest

Pre-class readings


Supplemental readings

Kremer, Michael, and Rachel Glennerster, Improving Health in Developing Countries: Evidence from Randomized Evaluations, Handbook of Health Economics, Volume 2.

Hookworm

Malaria


Malnutrition

**Clean Water**


**Early Life Health, Schooling, and Productivity**


III: Health Systems

Lecture 8: Overview of Health Systems

Key points:
- The basics of a health system
- Supply versus demand-side restrictions
- Problems of supply: Provider competence and attendance

Pre-class readings

Supplemental readings

Developing Countries (esp. China and India)


Conditional Cash Transfers

Lecture 9: Health reform in Europe and the United States

Key points:
- Policy changes in rich countries
- The Affordable Care Act

Pre-class readings
Supplemental readings

IV. Health Insurance

Lectures 10 & 11: Optimal Health Insurance

Key points:
- The balance between risk spreading and moral hazard
- Is current insurance optimal?
- Supply-side cost sharing
- Managed care

Pre-class readings

Lecture 11


Lecture 12

Classic papers


Supplemental readings


Lectures 12, 13, and 14: Health Insurance, Utilization, and Health

Key Points:
- Empirical estimates of moral hazard
- Is it really moral hazard?
- Response to supply prices
- Insurance coverage and health
- Payment rate changes, health care utilization, and health
Pre-class readings

**Lecture 12**


**Lecture 13**


**Lecture 14**


Supplemental readings

Health Insurance and Health

**Medicare and health**


**Medicaid and health**


**More on Oregon**


**Health Insurance and Income**


**The Demand-side: Cost Sharing, Utilization, and Health Estimates**


Is it really moral hazard?

The Supply-Side:
Impact of Prices on Physician Behavior


Bundled Payments / Accountable Care Organizations


Physician Responses to Information


Physician responses to malpractice


Lecture 15: Health Care Innovation

Key points:
• Insurance has dynamic as well as static effects
• The importance of intellectual property for investment

Pre-class readings


Supplemental readings


Lecture 16: Disability Insurance

Key points:
- Rapid increase in disability insurance (DI) program participation over time; but recently, caseload declines
- DI trends not strongly related to trends in population health
  - Incidence of severe health problems did not fuel historic rise
  - But treatment of pain is a major issue
- DI programs affect and are affected by health insurance programs
  - People w/ disabilities are high-cost, high-need, with comorbidities
- Changes in economic conditions affect DI claiming
- DI provides valuable social insurance but discourages labor supply (insurance-incentive tradeoff, moral hazard)

Pre-class readings

Supplemental readings
Overview of the Disability Insurance System


Disability Insurance and Labor Supply


**Welfare of the Disabled**

**Pain**

**Optimal Social Insurance Programs**
V. Productivity

Lectures 17, 18, & 19

**Key points:**
- The aggregate returns to health spending have been large
- Cross-section spending differences are often not associated with improved outcomes
- Healthcare productivity is low
- Theories for uneven productivity: flat of the curve medicine, increasing returns, general inefficiency

**Pre-class readings**

**Lecture 17**

**Lecture 18**


**Lecture 19**

**Supplemental readings**

**Theory**


**Time Series Returns to Spending**


Cross-sectional Returns to Spending


More on Regional Variations in Spending


Administrative costs

Workforce policy

VI. Medical Care Markets

Lectures 20, 21, & 22: Provider Competition and Insurer-Provider Interactions

Key points:
- Both horizontal and vertical integration are common
- Consolidation has costs and benefits
- Equilibria with bilateral oligopoly
- Network formation is a Pareto inefficient equilibrium

Pre-class readings

Lecture 21

Lecture 22


Supplemental readings

Survey

Consolidation


**Insurance-provider interactions and competition**


**Not-for-profit versus for-profit institutions**


**Entry**


**Pharmaceuticals**


Lecture 23: Insurance selection

Key points:
- Perfect and imperfect information in insurance are each problematic
- The right model of insurance choice is difficult
- Market design is a major issue

Pre-class readings


Classic papers


Supplemental readings


**Risk Adjustment**


**Lecture 24: Insurer competition**

**Key points:**
- The insurance industry is relatively low profit, but not that competitive
- People do not make the best choices in insurance, and this influences equilibria

**Pre-class readings**


**Supplemental readings**
Theory


**How competitive is insurance?**


How People Make Choice Decisions


Dynamics


Lecture 25: Antitrust Analysis (joint with Leemore Dafny)

Key points:
- How antitrust enforcers evaluate proposed mergers (with hospital sector as example)
- How economic research has impacted these evaluations in the healthcare sector
- The scope of antitrust law (specifically, its limits)
Pre-class readings

Supplemental readings


