What is health economics?

ECON 43565
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Two major themes in this class

- What are the economic aspects of health issues?
- What can economists add to the discussion of
  - The production of health?
  - The markets for health care?
  - The markets for insurance?
- Key results: policy has ignored behavior at their peril

These themes are easy to motivate

- Health care sector is one of the largest in the economy
  - $3.3 trillion in spending in 2016
  - $10,348/person
  - 17.9% of gross domestic product
  - 45% expenses covered by governments
- Costs are expected to continue to rise
  - Prices rising faster than other sectors
  - Aging population

% Change in Prices Since 1980

- Medical Care
- All Products
Despite the spending, some problems

- High uninsurance rates
- US tends to have poor outcomes compared to other countries
Fiscal concerns as well: Medicare

- Started in 1965
- Federal health insurance program for
  - Those 65 and older
  - Disabled
  - End-stage renal disease
- Components
  - Part A: Hospitalization (mandatory)
  - Part B: Ambulatory care (voluntary)
  - Part D: Prescription drugs (voluntary)
Medicare Statistics -2015

• 57 million recipients
• $540 billion in net outlays (expenditures minus premiums)
• 15% of the federal budget
• 3.0% of GDP
Questions to consider?

- What will additional taxes do to the labor market?
- What will cuts in benefits do to the health of beneficiaries?
- Will changing eligibility age alter retirement?
- Will reductions in spending discourage innovation?
- These are all economic questions

What is economics?

- Behavioral science
- Develop models that can
  - Predict/explain behavioral patterns
  - Can be falsified with data/experimentation
- Starting point – actors are purposeful
  - Firms seek to maximize profits
  - People want to maximize utility
- Important characteristics of economics is its predictive nature – given a change in constraints – how will actors respond?

Solutions

- Increase taxes
- Increase retirement age
- Reduce benefits – increase cost sharing
- Reduce rate of growth of Medicare spending
- Means-test Medicare

![Graph showing the ratio of 20-64 Population/Medicare from 1970 to 2040](image)

- Ratio: 20-64 Population/Medicare
- Ratio values: 5.5, 4.7, 4.5, 4.3, 4.0, 3.2, 2.6, 2.5
What can economics add to the study of health?
- Theoretical – modeling the role of incentives
- Empirical – detecting whether distortions occur and measuring the responses to external events

What is the primary lesson of economics?
- Incentives matter

Economics in health
- Economists have been successful in demonstrating that incentives matter a great deal in the health sector
- Has altered
  - The way people think about problems
  - The structure of the industry
  - Policy response to certain circumstances
- The problem: Most do not like what economists have to say
- Economics is at its best when it demonstrates that incentives matter in seemingly uneconomic settings
- Applied to many non-business settings
  - Families
  - Crime
  - Governments
  - Addictive substances
  - Health care
Example 1: Small Group Reform

- Most insurance is provided by employers
- Large firms are “self-insured”
- Smaller firms/self employed must purchase insurance for their workers
- Small groups tend to have
  - Higher prices
  - Prices that are volatile
  - Therefore, smaller firms less likely to provide ins.
- Price also is a function of worker characteristics

<table>
<thead>
<tr>
<th>Firm Size</th>
<th>Percent of Firms Offering Health Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-9</td>
<td>46%</td>
</tr>
<tr>
<td>10-24</td>
<td>72%</td>
</tr>
<tr>
<td>25-49</td>
<td>87%</td>
</tr>
<tr>
<td>50-199</td>
<td>95%</td>
</tr>
<tr>
<td>200+</td>
<td>98%</td>
</tr>
</tbody>
</table>

Higher priced groups are women, older workers, minorities, chronic health problems
Concern: prices for some groups too high
Solution: Reform the small group market by eliminating pricing based on sex/race/age
Goal: reduce prices and therefore enhance ability to pay for insurance
Nearly all states have adopted some version of small group reform

What is the economist’s prediction (Rothschild and Stiglitz)

- Policy lowers prices for some by forcing others to pay more for insurance
- What is the natural response of the low priced insured’s (e.g., young people)?
  - They leave the market since their price has increased
- As the low risk exit the market, only higher risk people remain
- These laws increased costs, decreased availability
Example 2: An Obesity (Cutler et al.)

- Rapid increase in obesity since 1970
  - In 1970, 14% of the population was obese
  - Today, rates are around 36%

- Differs from long-term increase in weight since the turn of the century

- Increase in obesity is broad based – all groups have been impacted

Obesity rates over time

<table>
<thead>
<tr>
<th>Group</th>
<th>1988</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>22.9%</td>
<td>36.4%</td>
</tr>
<tr>
<td>Males</td>
<td>20.2%</td>
<td>34.5%</td>
</tr>
<tr>
<td>Females</td>
<td>25.5%</td>
<td>38.1%</td>
</tr>
<tr>
<td>White</td>
<td>21.6%</td>
<td>34.6%</td>
</tr>
<tr>
<td>Black</td>
<td>30.7%</td>
<td>48.0%</td>
</tr>
</tbody>
</table>

FPL = Federal poverty limit

A rise in obesity is caused by
- Reduction in energy expended
- Increase in calories consumed

What are some candidate reasons for the rise in obesity
- 
- 
- 
- 
- 

What does a theory about the rise in obesity have to explain?

- 
- 
-
An economic model

- Why are people eating more?
  - The price of food has dropped

- Why has the price of food declined?
  - Technological progress

- Why does it not impact other countries?
  - Local production/sales of food make technological progress less of an impact on food prices

An economic model of technological change

- Major advances in food preparation such as vacuum packing, microwaves, freezing, preservatives, etc.

- Technology has reduced the time and direct cost of food preparation

- Evidence: time spent on food preparation among non-working mothers has fallen 50% in past 25 years

How will technological change alter calories?

- Greater variety of food (e.g. junk food now much more prevalent — reduced cost)

- More calories/dollar

- More meals (almost all of the increase in calories has been an increase in calories between meals, not calories within meals).


- All consumer prices 137%

- Fresh fruit 276%

- Fresh vegetables 252%

- Dairy products 96%

- Frozen food 83%

- Frozen potatoes 93%

- Potato chips 77%

- Ground beef 90%

- Soda 55%