Health Economics: A Primer

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What is Economics?

• Social Science—study of how humans allocate resources under conditions of scarcity.

• A few key concepts
  – Demand and Supply
  – Cost-Benefit Analysis
  – Incentives Matter
What is Health Economics?

• Study of how we allocate *scarce health care resources* and the impact of that allocation on the health status on population.

  – Resources are limited, wants are limitless. How do we allocate our resources to meet the greatest wants? We have to make trade-offs.
Is the Health Care sector unique?

Most markets have a few common features

1. Most transactions involve only a buyer and a seller.
2. Sellers can freely enter and exit a marketplace
3. Buyers have full information about the quality of the product/service and the price they will pay.
4. Buyers pay sellers directly for the goods/services being exchanged.
5. Market prices help coordinate the decisions of market participants and lead to efficient outcomes.
Is the Health Care sector unique?

In the Health Care sector…

1. Most transactions involve only a buyer and a seller. **NO!**
   Presence of third parties in transactions— insurers and the government play a significant role in determining health care decisions.

2. Sellers can freely enter and exit a marketplace. **NO!**
   Provider Licensing, CON laws, High Fixed Costs create barriers to entry.

3. Buyers have full information about the quality of the product/service and the price they will pay. **NO!**
   Patients often don’t know what they need and cannot evaluate the quality of their treatment. They often lack full information on quality and price.
In the Health Care sector...

4. Buyers pay sellers directly for the goods/services being exchanged. **NO!**
Health care providers are most often paid by third parties (private or government health insurance)...after the transaction has occurred.

5. Free market prices coordinate the decisions of market participants and lead to efficient outcomes. **NO!**

The access and payment rules established by insurance companies and government payers largely determine the allocation of resources, and the resulting allocation may not be the most efficient.
Taking the pulse of the US Health Care system

Economists assessing the overall performance of a health care system focus on three key components ("Triple Aim")

- Access
- Cost
- Quality
Access: What % of the population has access to health care?

• **Access to the health care system** is tied to access to health insurance.

   “Health insurance makes a difference in whether and when people get necessary medical care, where they get their care, and ultimately, how healthy they are. Uninsured people are far more likely than those with insurance to postpone health care or forgo it altogether. The consequences can be severe, particularly when preventable conditions or chronic diseases go undetected.” **Key Facts about the Uninsured Population, Kaiser Family Foundation.**
Access: The importance of health insurance

Figure 9
Barriers to Health Care Among Nonelderly Adults by Insurance Status, 2016

- No Usual Source of Care: 49%
  - Uninsured: 12%
  - Medicaid/Other Public: 12%
- Postponed Seeking Care Due to Cost: 23%
  - Uninsured: 9%
  - Medicaid/Other Public: 6%
- Went Without Needed Care Due to Cost: 20%
  - Uninsured: 8%
  - Medicaid/Other Public: 3%
- Postponed or did not get needed prescription drug due to cost: 18%
  - Uninsured: 14%
  - Medicaid/Other Public: 6%
  - Employer/Other Private: 6%

NOTE: Includes nonelderly adults ages 18-64. Includes barriers experienced in past 12 months. Respondents who said usual source of care was the emergency room were included among those not having a usual source of care. All differences between uninsured and insurance groups are statistically significant (p < 0.05).

SOURCE: Kaiser Family Foundation analysis of the 2016 National Health Interview Survey.
Access: The impact of the Affordable Care Act (2010)

• Landmark legislation whose primary focus was increasing access to health insurance. How?
  • Imposed an Individual and Employer Mandate
  • Provided Funding for Medicaid expansion
  • Limited the ability of insurance companies to deny coverage to consumers with pre-existing conditions; eliminated lifetime caps
  • Imposed limits on what insurance companies could charge for smokers, older people, etc.
  • Allowed young people to stay on family coverage until age 26
  • Introduced premium tax credits and cost-sharing subsidies for those who purchase insurance on the Exchange
Access: The impact of the Affordable Care Act

Figure 2

Uninsured Rate Among the Nonelderly Population, 1998-2016

NOTES: Includes nonelderly individuals ages 0-64.
Access: Main Take-aways

• Health Insurance is the ticket into the health care system.

• Uninsured people often postpone health care or forgo it altogether. This can lead to poor outcomes for those with preventable conditions and chronic diseases.

• The Affordable Care Act made huge strides in reducing the numbers of uninsured but there are still more than 20 million Americans without health insurance.

• Safety net providers, including hospitals, community health centers, rural health centers, FQHCs and free clinics provide care to many people without health coverage.
Costs: Growth in per capita health care spending over time

Source: Kaiser Family Foundation analysis of National Health Expenditure (NHE) data
• Get the data • PNG
## Costs: Cross-country comparison of expenditures per capita

<table>
<thead>
<tr>
<th>Country</th>
<th>Expenditures per capita, U.S. dollars, PPP adjusted, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$10,348</td>
</tr>
<tr>
<td>Switzerland</td>
<td>$7,919</td>
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<tr>
<td>Germany</td>
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<td>Netherlands</td>
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<tr>
<td>Austria</td>
<td>$5,227</td>
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<tr>
<td>Comparable Country Average</td>
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<tr>
<td>Belgium</td>
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<tr>
<td>Canada</td>
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<tr>
<td>Australia</td>
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<tr>
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<tr>
<td>Japan</td>
<td>$4,519</td>
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<tr>
<td>United Kingdom</td>
<td>$4,192</td>
</tr>
</tbody>
</table>

**Source:** Source: U.S. data are from the 2016 National Health Expenditures Account. Comparable country data are from OECD (2017), "OECD Health Data: Health expenditure and financing: Health expenditure indicators", OECD Health Statistics (database). DOI: 10.1787/health-data-en (Accessed on March 19, 2017) • Get the data • PNG
Costs: Health Expenditures as a share of US GDP over time

Source: Kaiser Family Foundation analysis of National Health Expenditure (NHE) data
• Get the data • PNG

Middlebury
Costs: Sources of Spending, 2017

THE NATION’S HEALTH DOLLAR ($3.5 TRILLION), CALENDAR YEAR 2017: WHERE IT CAME FROM

- Health Insurance, 75%
- Private Health Insurance, 34%
- Medicare, 20%
- Medicaid (Title XIX) Federal, 10%
- Medicaid (Title XIX) State and Local, 6%
- VA, DOD, and CHIP (Titles XIX and Title XXII), 4%
- Out of Pocket, 10%
- Investment, 5%
- Other Third Party Payers and Programs, 8%
- Public Health Activities, 3%
- Government

1 Includes worksite health care, other private revenues, Indian Health Service, workers’ compensation, general assistance, maternal and child health, vocational rehabilitation, Substance Abuse and Mental Health Services Administration, school health, and other federal and state local programs.

2 Includes co-payments, deductibles, and any amounts not covered by health insurance.

Note: Sum of pieces may not equal 100% due to rounding.

Costs: Uses of Spending, 2017

THE NATION'S HEALTH DOLLAR ($3.5 TRILLION), CALENDAR YEAR 2017, WHERE IT WENT

1 Includes Noncommercial Research and Structures and Equipment.
2 Includes expenditures for residential care facilities, ambulance providers, medical care delivered in non-traditional settings (such as community centers, senior citizens centers, schools, and military field stations), and expenditures for Home and Community Waiver programs under Medicaid. Note: Sum of pieces may not equal 100% due to rounding.

Costs: Main Take-aways

- We spend more per capita for health care than any other country in the world

- Our health care expenditures are growing faster than the economy which means health care is taking up more and more of our household, state and federal budgets.

- 75% of expenditures paid through health insurance and over 50% of expenditures are directed to hospitals and physicians and clinical services
Costs: What is driving up health care spending?

• *Growth of third party payers (people shielded from true cost of care demand more care — “moral hazard”)
• *Fee for service reimbursement system (incentivizes volume not value)
• *Technological growth
• *Increased specialization
• Aging of population
• Income growth
Quality: We are spending more...are we getting more?

• Not so much....
Quality: We are spending more...are we getting more?

Note: See How This Study Was Conducted for a description of how the performance scores are calculated.
Source: Commonwealth Fund analysis.

The US performs poorly on basic health measures such as child and infant mortality and life expectancy at birth.

– From 2001-2010, the risk of death in the US was 76% greater for infants and 57% greater for children than the average across 20 high income nations. Thakrar et al., (2018) Health Affairs

– In 2016, the US ranked last in life expectancy at birth among 18 high income countries. The gap between the highest performer and the US was almost 6 years for women and 5 years for men. Ho, (2018) British Medical Journal

Quality: We are spending more...are we getting more?
Quality: We are spending more...are we getting more?

Mortality Amenable to Health Care, 2004 and 2014

Quality: We are spending more…are we getting more?

Health Care System Performance Compared to Spending

Note: Health care spending as a percent of GDP.
Source: Spending data are from OECD for the year 2014, and exclude spending on capital formation of health care providers.

Determinants of Health: How might we better allocate scarce resource dollars?

Figure 2
Impact of Different Factors on Risk of Premature Death

Housing, Education, Transportation, Environment

Determinants of Health:
How might we better allocate scarce resource dollars?

Research suggests…

• Ease access to health insurance to better ensure people have access to timely, preventative care
• Shift resources toward primary care and the social determinants of health
• Increase reliance on evidence-based medicine and cost-effectiveness research to reduce wasteful spending
• Align payment incentives with desired population health outcomes
Vermont’s All-Payer Model:
Improving quality (population health) and reducing cost

Incentives Matter!

• Shifts payment from Fee-for-service to risk-adjusted capitated payment (*focus moves from sick care to well care, reduces wasteful spending/overutilization; incentivizes high impact investments (e.g. MH); encourages clinical innovation*)
• Shifts financial risk from payers to providers (*reduces wasteful spending/overutilization; incentivizes preventative care and early intervention*)
• Holds providers accountable for quality of care delivery and population health outcomes (*aligns patient and provider incentives*)
• Shift resources towards primary care and pays clinicians to coordinate care between providers of high risk patients (*breaks down care silos, improves clinical outcomes, reduces costly duplication of services and dangerous drug interactions*)
• Fixed population-based payments incentivize the investment in the *social determinants of health*
Thank you for your time. Questions?