Competition Policy in the Health Sector

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Advanced economies are on an unsustainable path.

- Healthcare accounts for an increasing percentage of GDP and public expenditures.

Figure 1. The rising share of public health and long-term care expenditures in OECD countries[1]

1. Unweighted average of available OECD countries.
2. To focus on the structural factors and smooth the effect of GDP variations, the ratio displayed in this figure uses trend instead of actual GDP (from the OECD Economic Outlook, No 91) in the denominator.
Source: OECD Health Database (2011) and OECD Economic Outlook database No 91.

It is an exciting and active time for healthcare competition policy.

- U.S. hospital mergers no longer get a free pass.
- Insurer blocked from raising rivals' costs.
  - *U.S. v. Blue Cross and Blue Shield of Michigan* attacked use of MFN+ contracts.
- "Must-have" hospital blocked from excluding rivals.
  - *U.S. v. United Regional Healthcare*.
- Pay-for-delay is under siege.
  - In *FTC v. Actavis,* Supreme Court held that patent settlements are not immune from prosecution.
  - European Commission fined Lundbeck and several potential generic rivals.

By promoting competition among insurance companies and care providers, vigorous antitrust enforcement can promote higher quality while stemming the tide of rising costs.

Thank You.

Enjoy the beach!

A DIFFERENT PERSPECTIVE

ILLUSTRATED BY INSURANCE COMPANIES

Who cares about insurance companies?

- Economists and politicians do.
- Should they?
  - Is competition among insurers a good thing?
  - Does it matter?

Does competition promote efficient insurance pricing?

- Adverse Selection: competitive insurance markets can be subject to strong selection issues.
- Less-than-fully Rational Consumers:
  - Choice Overload: Some consumers make bad choices when given lots of options (Part D studies).
  - Consumers may express preferences that don't make sense (*e.g.,* seek excessively low deductibles). Is this problem better or worse under competition?
- Insurance exchanges with strict product definitions overcome many of these problems, but do so by limiting competition to certain dimensions.

Does it matter whether competition promotes efficient insurance pricing?

- It is doubtful that strength of competition among insurance companies is an important driver of insurance costs for traditional antitrust reasons.
- Insurance company profits are *not* a big part of the problem:
  - In 2011, (premiums – benefits)/premiums = 12.3%.
  - Large employers pay administrative fees equal to approximately one or two years of healthcare inflation.

That doesn't mean insurance companies aren't part of the problem.

Does competition promote efficient contracting with care providers?

- Contract terms affect more than static rent division:
  - Shape incentives to provide quality care.
  - Shape innovation incentives.
- Is competition likely to improve contracting?
  - Traditionally, would think "yes."
  - For example, less appropriation of innovators' returns (*e.g.,* pharmaceutical products) could lead to greater innovation.
  - But big questions whether consumers will pressure insurance companies to do the right things.
  - Bigger questions about the need for exclusive relationships with care providers.

Is competition compatible with efficient contracting?

- Economies of Scale at the Relationship Level
  - Provider may incur large fixed costs to comply with an insurance company's policies and procedures.
  - Limits the number of relationships.
  - Are exclusives or volume commitments needed to support investment despite Segal and Whinston (2000)?
- Potential free-riding
  - Insurer may provide valuable best-practice information.
  - Market failures may prevent selling information separately.
  - Exclusives may be necessary to support investment.

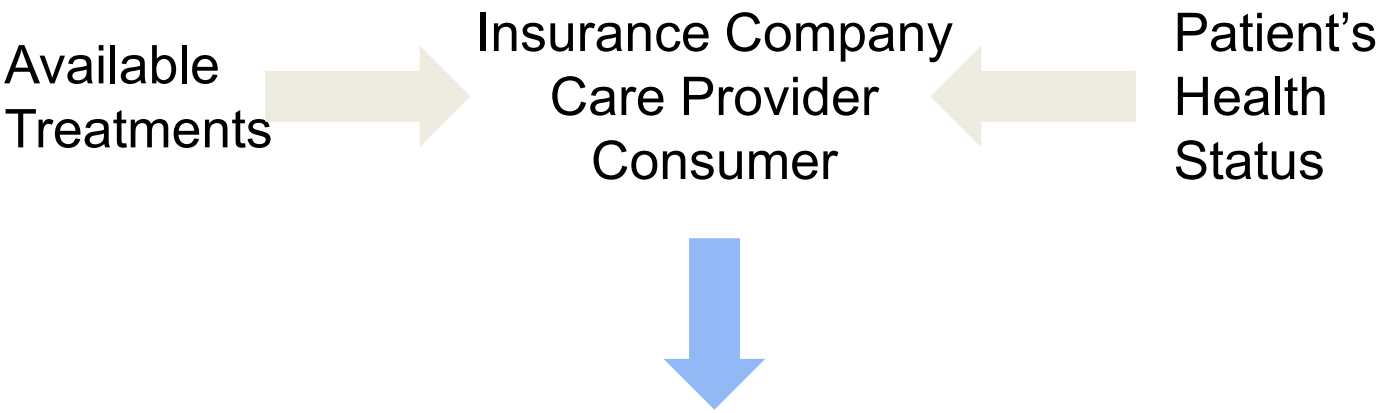
Intellectual Arbitrage Possibilities

- View care providers as “dealers” for insurance companies.
- Insurance company protocols and procedures are a form of standard setting.
  - Open versus closed standards.
  - Costs and benefits of standards competition.
- Hey, aren’t insurance companies platforms in two-sided markets?

WHAT DOES COMPETITION POLICY HAVE TO CONTRIBUTE TO SOLVING THE HEALTHCARE CRISIS?

Why are health expenditures rising?

- Higher prices.
- Increased consumption levels.
  - Richer populations: health is at least a normal good.
  - Less-healthy populations (are people consuming unhealthy behaviors)? Cultural trends, rising incomes, responses to other technologies, responses to medical technologies.
  - Medical technological progress: higher quality care over longer lifespans for stuff that used to kill you.
  - Medical technological progress: greater opportunities to provide unnecessary care.



Expenditure = Quantity of Services Consumed × Price

Where can competition policy contribute?

What's so special about healthcare markets?

- Pervasive public and private insurance.
- Poorly informed consumers: asymmetric information even after consumption.
- For profit, non-profit, and governmental providers often co-exist.
- Team production with difficult-to-verify effort levels.
- Multiple decision makers: patients, physicians, insurance companies, government, and (in U.S., employers).

Co-pay cards as an interesting institutional response.

Example of Differences:

Providers are selected to be components of broader networks.

- Are they substitutes or complements for purposes of merger evaluation?
  - Katz (2011) showed that they can be either when employers aggregate the preferences of their employees: broad network is more attractive.
  - Effects can arise in option-demand model even at the level of individual consumers.
  - Is this a potential application for Rey and Tirole (2013)?
- If one provider is “must have,” the others are complements.
  - Exclusion can be used for an efficient price squeeze.

IS COMPETITION GOOD FOR QUALITY?

A Brief History of Competition & Healthcare

- In the early 1990s, several countries around the world introduced greater competition into their health systems. in attempts to reduce costs.
- There was a backlash in the late 1990s, and many European and UK nations reversed course. Some empirical studies indicated that quality fell.
- Over the past decade, there has been a renewed emphasis on competition focused on using consumer sovereignty to drive quality improvements.
- U.S. always implicitly relied on consumer choice to drive quality, but widely seen as having provided weak incentives because of uninvolved and uninformed consumers.

Quality Problems

- The *quantity* of healthcare procedures and pharmaceuticals consumed may be excessive.
  - Excessive treatment can and should be viewed as *low quality*.
- Insufficient coordination among care providers leads to substandard health outcomes and excessive costs.
- There is widespread failure to apply best practice and evidence-based medicine.

Three ways in which competition policy can increase competition.

- Eliminate market division.
- Block mergers that do not have efficiencies that offset the loss of competition.
- Create better-informed consumers by providing relevant information regarding quality.

Eliminating Market Division

- Consider two single-product suppliers in a spatial market with endogenous vertical quality.
- Monopoly regime: each consumer is assigned to a specific supplier as the sole source of the service.
  - The assignment is made without regard for either supplier's quality (e.g., each supplier is given an exclusive geographic market).
- Competitive regime: each consumer is free to purchase the service from either supplier.

A Well-Known Result

- *At any given price,* competitive regime has greater quality incentives because demand is more elastic with respect to quality.
- Intuition:
  - When monopolist increases quality, only margin is between purchase and not.
  - When competitor increases quality, there is also a positive share-shift effect.
- Formally:
  - Monopolist: $X(\boldsymbol{q})$
  - Competitor: $s_i(\boldsymbol{q})X(\boldsymbol{q})$, so there is an extra effect $\partial s_i/\partial q_i \cdot X$.

The Well-Known Result is False

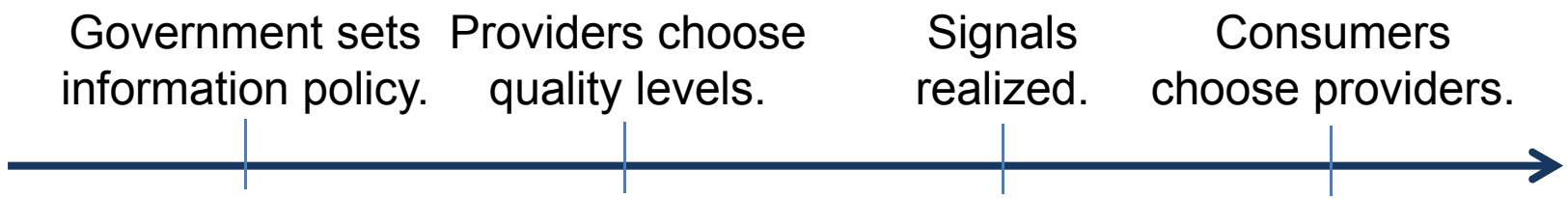
- Brekke et al. (2011) show it doesn't hold with partially altruistic providers.
- Standard argument breaks down more generally:
  - Monopolist: $X(\boldsymbol{q})$
  - Competitor: $s_i(\boldsymbol{q})X(\boldsymbol{q})$.
  - But unless $X(\boldsymbol{q})$ independent of $\boldsymbol{q}$, have to account for $s_i \cdot \partial X/\partial q_i$ (as well figure out what $X(\boldsymbol{q})$ means).
- Intuition (fixed-price case with fully insured consumers):
  - Suppose each person consumes at most one unit of service and the distribution of valuations depends on quality.
  - A monopolist does not derive any benefit from shifting mass from one set of positive values to a higher set of positive values.
  - A duopolist does not derive any benefit from shifting mass from negative to positive values if its rival as an even higher value.
  - Either effect can dominate.

Blocking Mergers: A Well-Known Result that is True

- Suppose that the two healthcare providers merge.
- In a symmetric equilibrium, monopolist chooses a lower quality due to internalization.
  - Recognizes that raising the quality for one provider site will lower the sales at the other.
  - Shifts its internal best-response functions inward.

INFORMATION PROVISION AS COMPETITION POLICY

An Information Policy Game



This ain’t agency.

- In a principal-agent problem, an additional signal is never harmful and better information in the Blackwell sense is better information in the economic sense.
- This is not a textbook agency problem: Signal induces consumer behavior which then translates into a provider reward function depending on the nature of competition and insurance payment schemes.
- It is much more difficult to determine what constitutes superior information.

Broad Considerations

- Incentives are mediated through consumer behavior.
  - It can be optimal to leverage consumer pressure by providing signals that aggregate ratings across different medical conditions.
  - Can be optimal to use noise as a form of handicapping for weaker providers. (Gravelle & Sivey (2010))
- Measures may create perverse incentives.
  - You get what you pay for (Holmstrom and Milgrom (1991)).
  - Gaming through patient selection: care providers may optimize against the measure's risk adjustment scheme.

What do good measures look like?

- Matters for health outcomes.
- Affect choices made by consumers or parties making recommendations to them.
- Positive spillovers with other activities.
  - Example without: aspirin for people with chest pain.
- Absence of negative spillovers with other activities.
  - Opportunity cost of resources.
  - Direct conflicts (e.g., blot clotting and excessive bleeding).
- Not susceptible to selection effects.
  - Measure itself cannot be influenced by selection.
  - System contains a means of detecting and/or correcting for selection.

IS COMPETITION COMPATIBLE WITH COOPERATION?

Should complementary providers be integrated or at least monogamus?

A Simple Game with Team Production

- Two types of specialists: i = 1, 2
- Health of patient in dimension i: θ_i .
- Number of necessary procedures: $\theta_i - e_i - a_{-i}$.
- Physician i's disutility of effort: $\frac{1}{2}(e_i^2 + a_i^2)$.
- Hard MC of procedure: c = 1.
- Each team member can infer effort level of the other at the end of the period but nothing is verifiable.

One-shot Game

- One-shot, individual capitation:

$$\max P - \{\theta_i - e_i - a_{-i}\} - \tfrac{1}{2}(e_i^2 + a_i^2) : e_i = 1,\ a_i = 0 .$$

- One-shot, joint capitation:

  Need to decide how to share the money. Say 50/50.

$$\max P - \tfrac{1}{2}\sum_k \{\theta_k - e_k - a_{-k}\} - \tfrac{1}{2}(e_i^2 + a_i^2) : e_i = 1/2 = a_i .$$

Repeat Play

- If matched with each other repeatedly, can use relational contracts.
  - For example, grim-trigger strategies under individual capitation: set a_i =0 forever in response to shirking by other doctor.
- Suggests that long-term *exclusive relationships* could be good.
  - More frequent interaction is the equivalent of a lower discount rate.
- How should antitrust authorities react if there are very few specialists of a given type?
  - Will integration of complementary suppliers lead to foreclosure of unintegrated rivals and/or a reduction in the number of viable competitors overall?
  - Hourglass industry.

CONCLUSION

Competition Policy can Play a Useful Role, but…

- needs to take unique characteristics of healthcare markets into account;
- should recognize that non-price effects may be the most important;
- should focus on vertical relationships and the conditions under which exclusivity is beneficial.

Some Big Questions

- Under what conditions does greater competition lead to greater quality?
- How to design an optimal provider report card?
- Should we take possible complementarities among horizontal rivals seriously?
- How should antitrust treat vertical mergers and vertical restraints?
  - Should doctors in complementary roles have integrated practices or exclusive relationships?
  - Should public and private insurers be integrated with care providers?