Competition in health care
And what can we learn from the UK?

Carol Propper
Imperial College London

Feb 2016
The background: the healthcare sector

- Characterised by growth in expenditure over time long period
- This tends to outstrip GDP growth
- Large amount of innovation, but innovation tends to be cost increasing (as well as enhancing quality)
- Policy makers therefore concerned about cost and productivity
Exhibit 1. Health Care Spending as a Percentage of GDP, 1980–2013

* 2012.

Notes: GDP refers to gross domestic product. Dutch and Swiss data are for current spending only, and exclude spending on capital formation of health care providers.
Source: OECD Health Data 2015.
The healthcare sector

- Two ways to tackle growth
  - Demand side: Alter the incentives facing the consumer
  - Supply side: Alter the incentives for the supplier
- Demand side changes tend to increase the prices facing consumers to make them more responsive but have undesirable equity consequences
- Use is limited especially in European context
The healthcare sector

• Focus is on supply side reforms – aimed at altering incentives for hospitals, clinicians and insurers
• One currently favoured approach is the introduction of market mechanisms into heavily regulated centralised systems
• Components are
  • Decentralisation of decision making
  • Promotion of competition between suppliers
  • Changes in payments/incentives

© Imperial College Business School
Is this a good thing?

• Appeal of competition
• The theoretical support
• Can competition work in a (formerly) centralised system? Lessons from the UK
  • Outline the reform agenda in the UK
  • Summarise recent empirical studies to see what the evidence suggests
• Concluding thoughts
The appeal of competition

- Competition in rest of the economy argued to promote growth
- Simple political appeal in heavily regulated healthcare markets with low productivity growth
- But consolidation in US markets has led to questions about functioning of markets in healthcare
- Is competition useful in healthcare?
Definition

- In healthcare can have either competition on insurer side and/or competition on provision side
- Both: USA, the Netherlands (started with the insurance side); Switzerland (very regulated)
- Provider only – UK; Nordic countries
- Focus here on the latter
Theoretical support

• Many models not very specific to the health care sector (though growing interest)

• Bottom line
  • Competition generally beneficial when prices are regulated (similar to simple models of school competition)
  • Anything could happen when they are not and results are sensitive to model specification

• Implications – empirical evidence is needed
Non-UK evidence

- Mostly from USA
  - Where prices are regulated prices competition increases quality
  - Less clear when there are market determined prices
  - Effects are different across different types of buyers
  - Market structure may be endogenous to quality
- So …evidence from policy experiments very valuable
Evidence from the UK

• Big experiment in introducing competition
The Blair pro-choice reforms

- Blair regime started with ‘co-operation’ and targets
- Mid-2000s shifted to policy of ‘choice and competition’
- Key elements of the reform
  - Freedom for patients to choose hospital of care
  - Shift from selective contracting to administered, centrally fixed prices (for around 70% of hospital activity)
  - Greater autonomy for well performing hospitals (retain some surpluses; greater freedom over investment decisions)
What happened?

• Did the reforms change behaviour and market structure?
• Did this have any effect on outcomes, processes, productivity, equity?
Patient knowledge of choice

- Around 50% of patients recalled being offered choice within two years of the reform
- But also a view from some GPs that their patients did not want (or need) choice

Increasing evidence that patients can choose on the basis of quality (as well as distance)

- evidence from choice of GPs; elective hip replacement surgery; heart surgery (CABG)
- better hospitals attracted more patients post-reform (CABG surgery; hip replacements)
Better hospitals attracted more patients (Gaynor et al)

<table>
<thead>
<tr>
<th>Quality (AMI mortality rate 2003)</th>
<th>Bottom quartile</th>
<th>Top quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of elective admissions</td>
<td>33,985</td>
<td>38,274</td>
</tr>
<tr>
<td>Average distance travelled by patients</td>
<td>11.4</td>
<td>11.7</td>
</tr>
<tr>
<td>Share of patients bypassing nearest hospital</td>
<td>0.37</td>
<td>0.39</td>
</tr>
<tr>
<td>Number of hospitals</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Gaynor et al Free to Choose
Change in market structure (actual provider HHI)

Kernel density

Herfindahl-Hirschman Index (HHI)

Number of hospitals: 162 (2003/04); 162 (2007/08).
Market definition method: actual patient flows.
Where did freeing up choice have an impact?

Concentration levels: hospitals
2003/04

Changes in concentration: hospitals
2003/04-2007/08

Source: Gaynor, Morreno-Serra, Propper
The impact on quality and process

**Quality** (most evidence)

**D-i-d studies**

- Mortality rates - fell and fell by more in less concentrated markets (AMI, 2 studies, change pre-dated policy, 1 study) (heart surgery: hospitals with higher quality elasticity has higher falls in mortality)
- Other measures of patient gain – no clear effect and/or positive effects

**Structural studies**

- Mortality fell, patient utility rose by around 8% (CABG); hospital elasticity with respect to quality increased (hip replacement)
The impact on quality and process

Productivity

- Less evidence
- Length of stay fell in less concentrated markets post reform
- No evidence of greater spending

Access/inequality

- No impact on waiting times
- No differential effects by income (deprivation of local area)
How did the reforms bring gains?

• Relatively little study of the mechanisms by which competition might bring benefits
• One approach has been to study the relationship between competition and management
Competition and Management in Public Hospitals
Motivation

• Management has been shown to result in greater firm productivity
• Economies which are competitive have better management
• Is this the case in hospitals?

Find that better management is

- Associated with a range of better outcomes (quality, financial performance, waiting times, staff satisfaction and regulator ratings)
- Management is better in hospitals facing more competition
Don’t get sick in Britain

Interviewer: “Do staff sometimes end up doing the wrong sort of work for their skills?”

NHS Manager: “You mean like doctors doing nurses jobs, and nurses doing porter jobs? Yeah, all the time. Last week, we had to get the healthier patients to push around the beds for the sicker patients”
Evidence from UK Hospital consolidation
Evidence from UK Hospital consolidation

• US evidence: consolidations raise prices, mixed impact on quality, reduce costs only slightly (Vogt 2009)

• Is this the same for a public system?
  • 1997 onwards UK experienced a wave of hospital reconfigurations
    • Over half of acute hospitals were involved in a reconfiguration with another trust
    • Median number of hospitals in a market fell from 7 to 5

• What was the impact on hospital production?
Gaynor et al (2012) find that consolidations resulted in:

- Lower growth in admissions and staff numbers but no increase in productivity
- No reduction in deficits
- No improvement in quality

Summary - costly to bring about with few visible gains other than reduction in capacity
What do we know from the UK experiment?

- Impact of reforms appears positive
  - Patients and hospitals appear to have responded
  - Better hospitals attract more patients
  - Quality rose without an increase in expenditure
  - Some of this might be due to increased managerial effort
- Merger policy appears to have opposite effect
- Many outstanding questions e.g. role of private providers
- But there was/is a large political push-back
Lessons and emerging Issues

• Pro-competitive policies appear to have brought about gains for patients
• Need market regulation to ensure mergers do not remove all competition
• Need to ensure market regulation does not become command and control by another name
• Need to address political issues that competition between public hospitals is seen as privatisation

© Imperial College Business School
The evidence from the UK

THANK YOU
Widespread merger activity: merged and unmerged hospitals (pre merger)
References


• Wynand P.M.M. van de Ven and Frederik T. Schut, "Universal Mandatory Health Insurance In The Netherlands: A Model For The United States?," Health Affairs, Volume 27, Number 3, May/June 2008


• Centre for Health Economics (York University), research papers by Gutacker CHE Paper 111; Siciliani et al CHE Paper 123.