Competiton in the NHS:

Does Healthcare competition save lives?

Anita Charlesworth, Director of Research and Economics

6 June 2016

The Health Foundation

Why have competition to improve provider performance?

Theory and empirical evidence suggests across the economy competition drives an improvement in welfare and productivity:

- Competition forces under-performing organisations to increase their performance or exit the market and shifts market share to more efficient organisations in the long run.
- Competition encourages firms to innovate and adopt best-practise techniques.

Assumptions Behind a Perfectly Competitive Market

- Many suppliers each with an insignificant share of market
- Each firm is too small to affect price via a change in market supply – each individual firm is a price taker
- Identical output produced by each firm – homogeneous products that are perfect substitutes for each other
- Consumers have complete information about prices and quality
- Transactions are costless – buyers and sellers incur no costs in making an exchange
- All firms (industry participants and new entrants) have equal access to resources (e.g. technology)
- No barriers to entry & exit of firms in long run – the market is open to competition from new suppliers
- No externalities in production and consumption

Choice in the English NHS

- Choice of GP (subject to practice boundary and capacity of practice)
- Choice of provider for first out-patient appointment following GP decision to refer
- Choice for specialist tests following GP decision to refer
- Choice of maternity provider (midwife, hospital led and type of birth – home, midwife led unit, hospital)
- Choice for some community services (podiatry, physiotherapy, adult hearing)
- Choice to hold a personal health budget for some services

Structure and regulation of the English hospital internal market (1991-97)

	Internal market (1991-97)
Providers	Directly managed units NHS trusts Private providers
Purchasers	Health authorities Varieties of general practice fundholding
Patient choice	None
Prices	Not publicly known (except for extracontractual referrals)
Quality	Information on waiting lists but not on outcomes such as hospital mortality rates for acute myocardial infarction
Regulation	NHS hospitals required to avoid deficits Purchaser efficiency index: health authorities required to reduce costs per episode by 3% a year No external regulatory oversight of quality

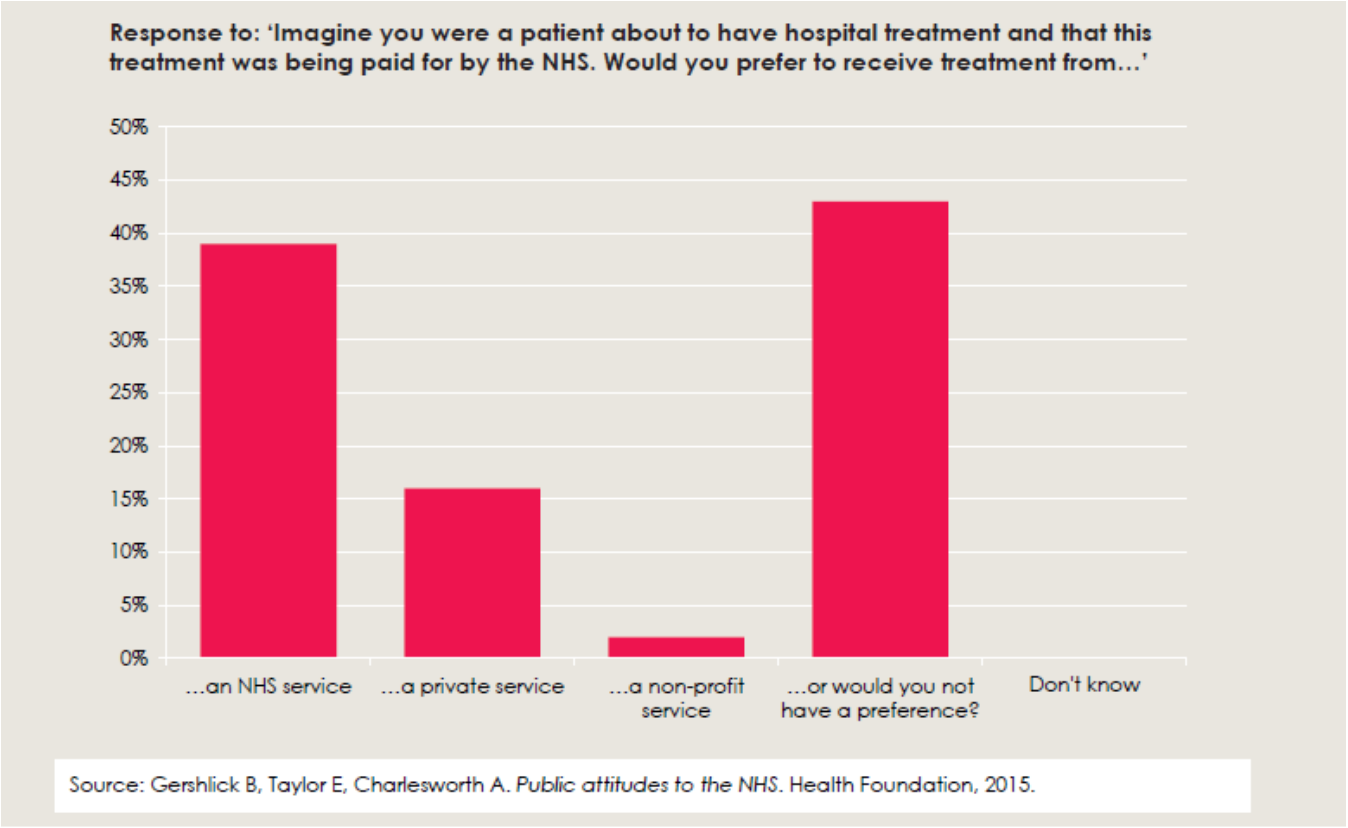
Structure and regulation of the English hospital New Labour market (2002-09)

	New Labour market (2002-09)
Providers	NHS trusts From 2003, independent sector treatment centres From 2004, NHS foundation trusts From 2006, private providers (subject to conditions)
Purchasers	Primary care trusts From 2006, practice-based commissioning
Patient choice	From 2006, the "Choose and Book" system enabled patients to choose between providers
Prices	From 2004, fixed hospital prices were introduced under Payment by Results
Quality	From 2007, the NHS Choices website provided limited information on quality to help patients choose
Regulation	2002 to 2005: inspection of NHS hospitals for implementation of the systems and processes of clinical governance and publication of aggregate performance in annual "star ratings"; private providers subjected to registration requirements and regular inspections 2006 to 2009: annual publication of performance of NHS hospitals in the annual "health check" in two domains, finance and quality, backed by "light touch" inspections; foundation trusts were also regulated by Monitor; private providers subject to registration and "light touch" inspections

Policy since 2009

- Choice model extended to 'Any Qualified Provider'
- Community health services become independent providers separate from commissioners.
- Great use of competition for the market – tendering for public health and community services grow.
- Health and Social Care Act 2012 introduced
    - Monitor must exercise its functions with a view to preventing anti-competitive behaviour in the provision of NHS services which is against the interests of people who use such services.
    - UK merger control regime applies to NHS foundation trusts and assigned to Monitor a role advising the CMA on relevant customer (patient) benefits.
    - The CMA exclusive jurisdiction over mergers between NHS foundation trusts.
    - The role of the CMA is to examine the impact that a merger between two such trusts could have on competition, and the consequences this may have for the quality of healthcare services provided.

Health care provider preferences among respondents to the British Social Attitudes Survey 2014



NHS England & Monitor Outpatient Appointment Referrals

Q3. Were you offered a choice of hospital or clinic for your first outpatient appointment?
Base: All respondents who have seen a GP in the last 12 months and have been referred for an outpatient appointment (n=2,729)

	Total (May 2014)	Total (July 2015)
Yes	38%	40%
No	60%	60%
Don't Know	2%	-

Q5. Before you visited your GP, did you know that you had a choice of hospitals or clinics that you could go to for your first hospital or clinic outpatient appointment?
Base: All respondents who have been referred by their GP for an outpatient appointment (n=2,729)

	Total (May 2014)	Total (July 2015)
Yes	51%	47%
No	49%	53%

Source: Monitor NHS England – Outpatient Appointments Summary – July 2015

NHS England & Monitor
Outpatient Appointment Referrals

Q6. When you were offered the choice of hospital or clinic for your first outpatient appointment, did you have enough information to help you make your decision?
Base: All respondents who have been referred by their GP for an outpatient appointment and were offered a choice of hospital or clinic (n=1,086)

	Total (May 2014)	Total (July 2015)
Yes	89%	88%
No	11%	12%

Q8. Were you able to go to the hospital or clinic that you wanted to go to for your first outpatient appointment?
Base: All respondents who have been referred by their GP for an outpatient appointment (n=2,729)

	People offered a choice (n=1086)	People not offered a choice (n=1644)
Yes	92%	43%
No	5%	10%
I didn't have a preference	4%	47%

Source: Monitor NHS England – Outpatient Appointments Summary – July 2015

NHS England & Monitor Outpatient Appointment Referrals

Q7. Which source of information was the most important to you when choosing a hospital or clinic for your first outpatient appointment?

Base: All respondents who have been referred by their GP for an outpatient appointment and were offered a choice of hospital or clinic (n=1,086)

	Total
My GP	36%
Own experience	31%
Friends/family members	9%
NHS Choices website	5%
A booklet or leaflet about my choices	4%
Staff at Clinical Assessment or Referral Centre	3%
Other Internet site	2%
Someone else at GP surgery	1%
Local patient organisation	1%
Other	6%
Don't know	3%

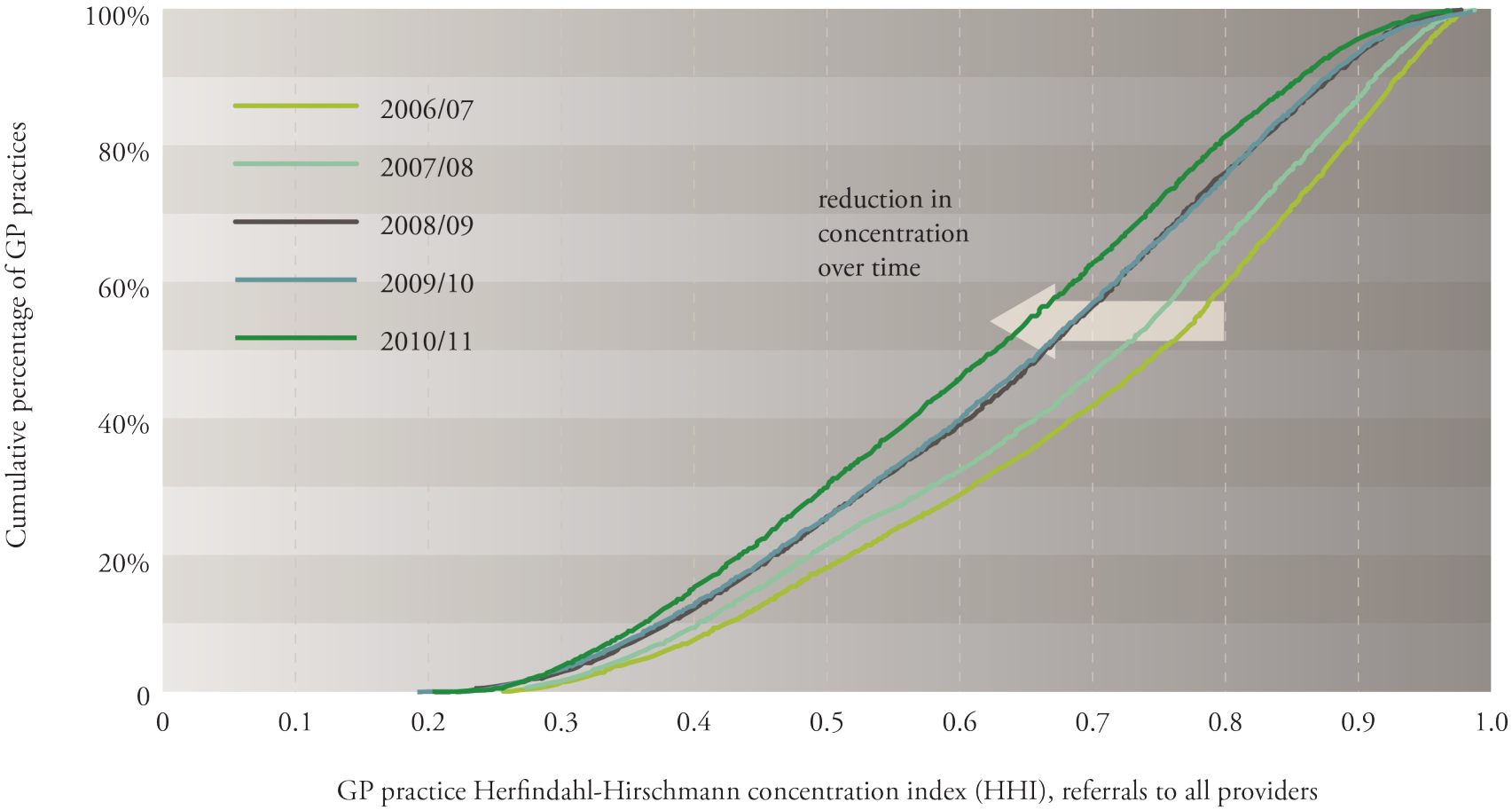
- Over a third (36%) of people who have been referred by their GP for an outpatient appointment and said they were offered a choice of hospital or clinic found their GP as the most important source of information, this was closely followed by approximately three tenths (31%) of people found that their own experience was most important.
- Over half (52%) of 18-24 year olds* found that their GP was the most important source of information, significantly higher than 55-64 year olds (25%).

Source: Monitor NHS England – Outpatient Appointments Summary – July 2015

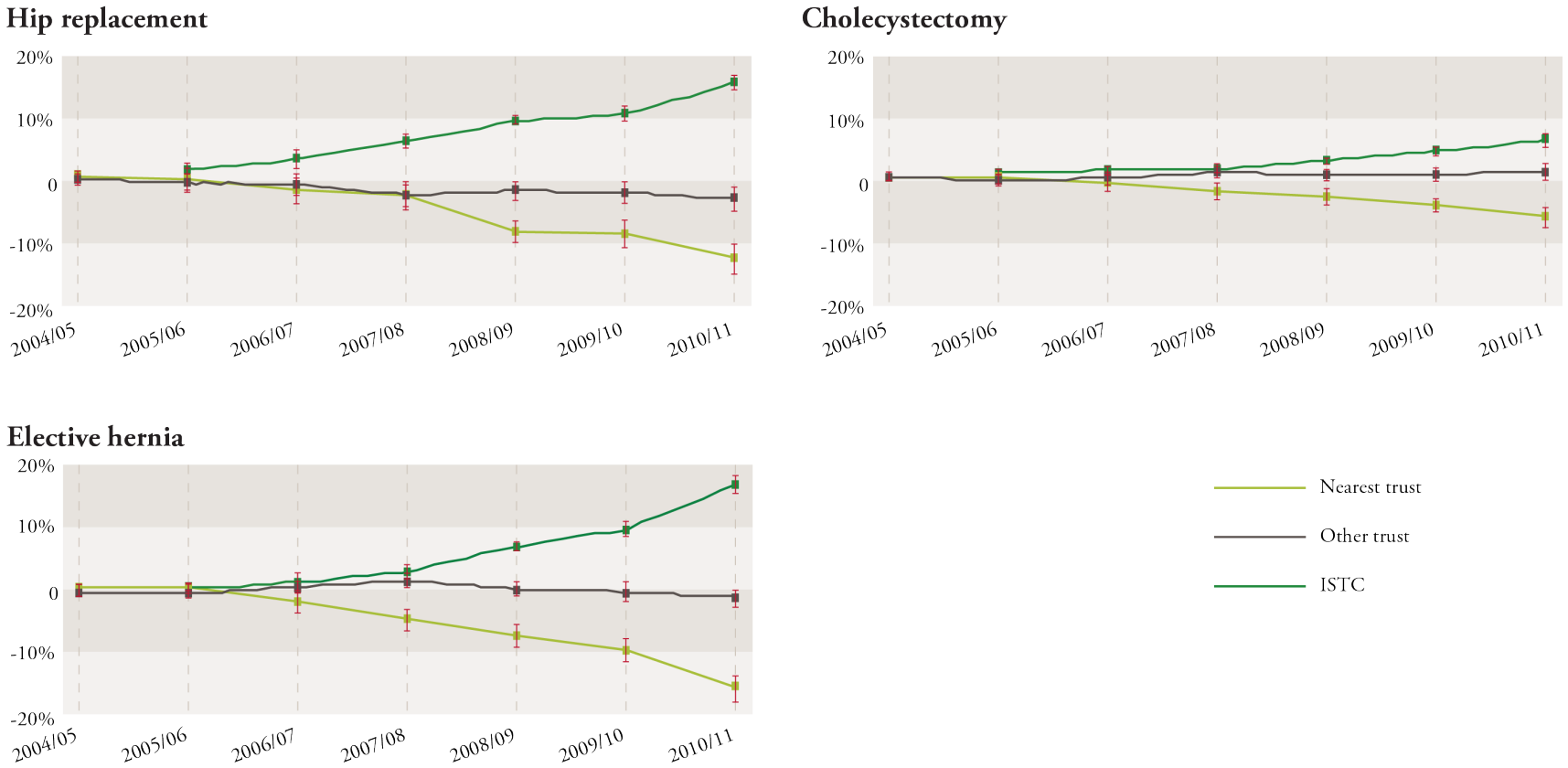
Institute for Fiscal Studies

nuffieldtrust

Cumulative distribution of GP practice-level concentration for providers used for outpatient referrals by year, 2006/07 to 2010/11

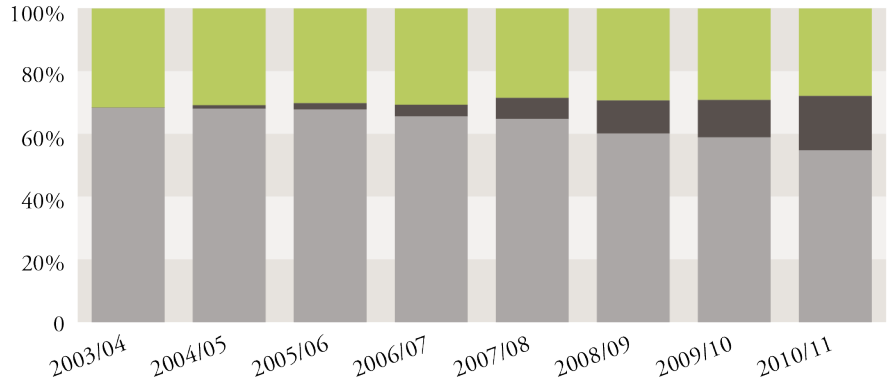


Change in the percentage admitted to each provider type for elective procedures, relative to 2003/04, by procedure

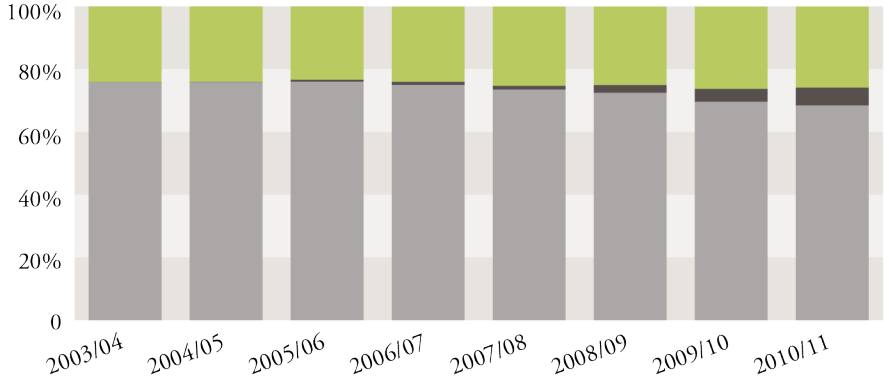


Distribution of selected elective procedures across provider types by year, 2003/04 to 2010/11

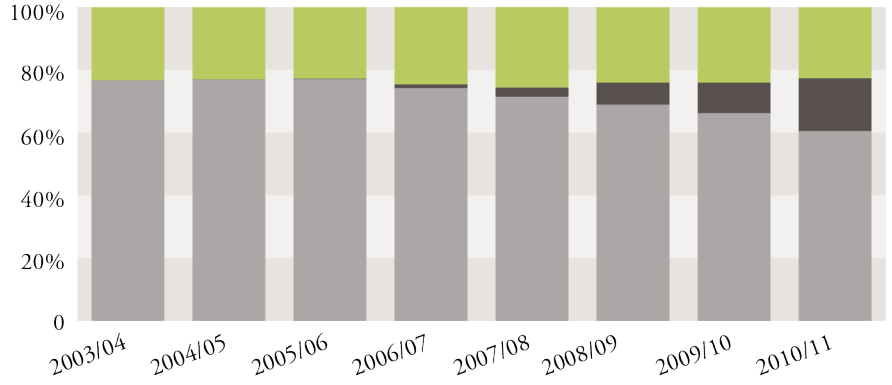
Hip replacement

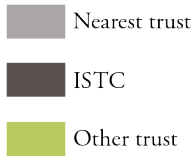


Cholecystectomy (gallbladder removal)

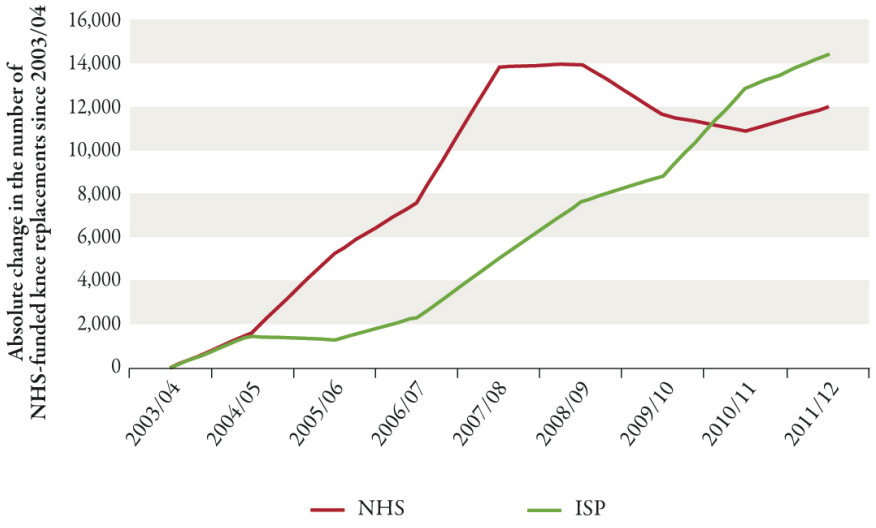


Elective hernia

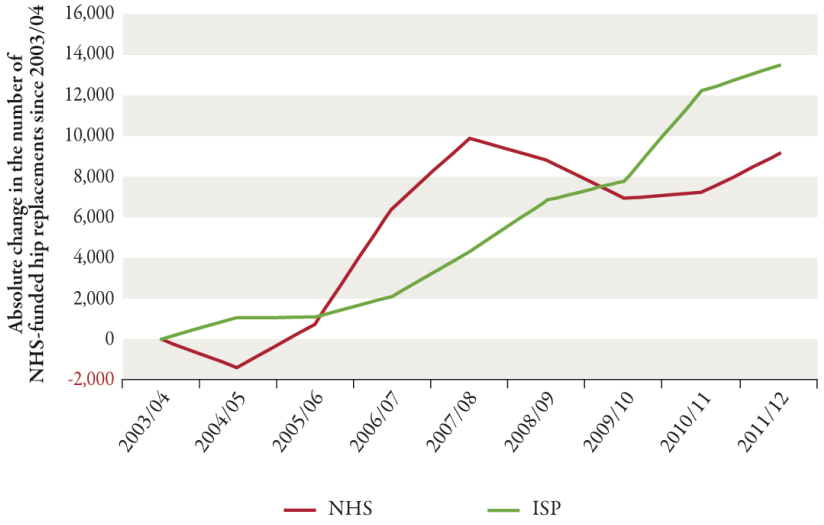




Change in NHS-funded hip & knee replacements by provider type



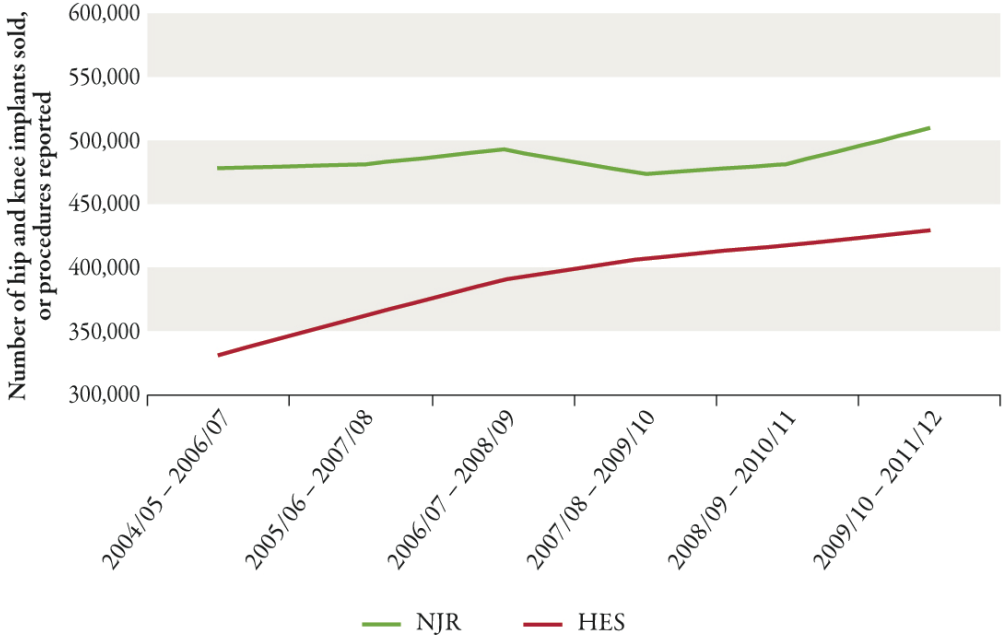
Source: Authors' calculations using HES data.



Source: Authors' calculations using HES data.

Independent sector providers (ISPs) account for more than half the increase in NHS-Funded hip and knee replacements between 2003/4 and 2010/11

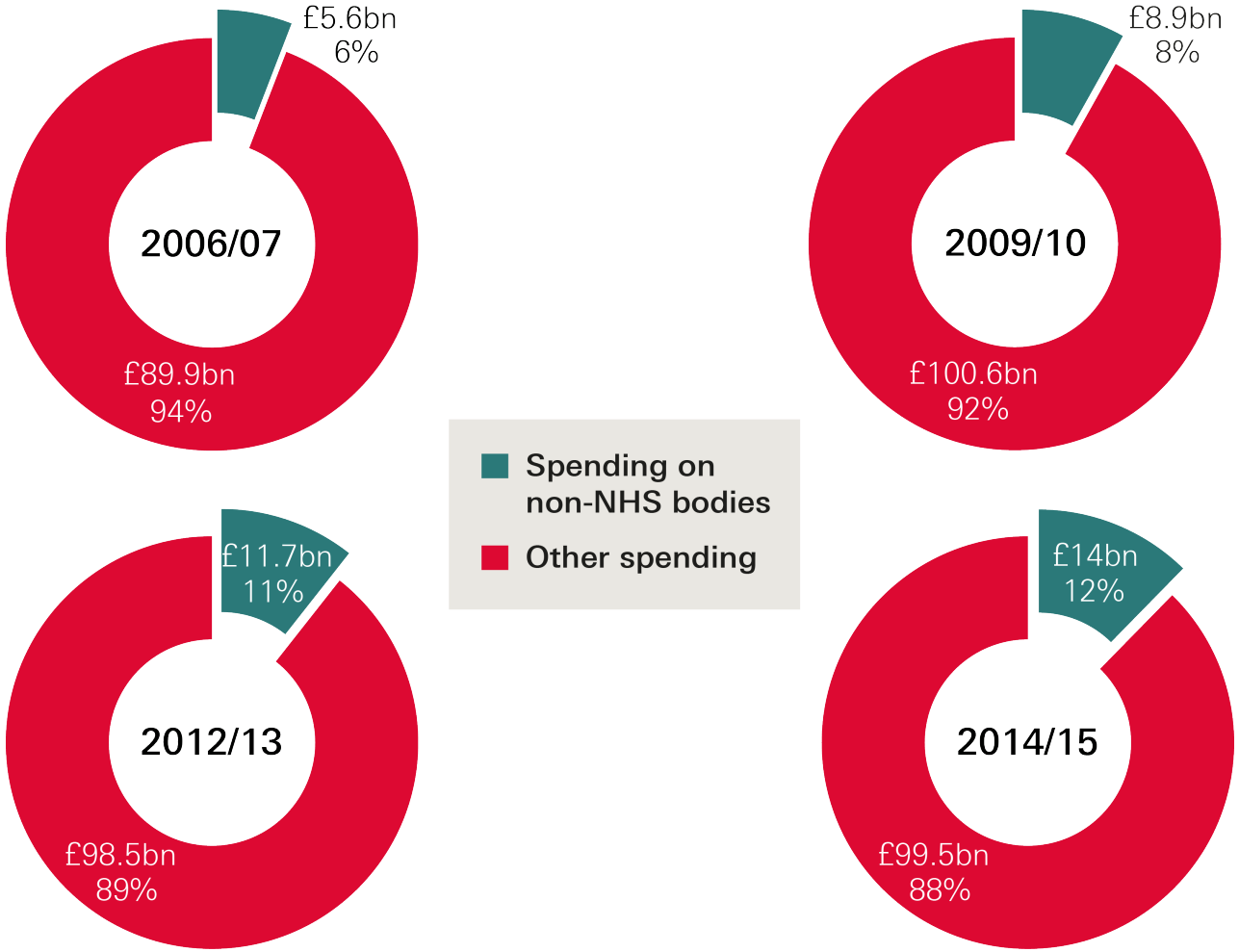
Three-year aggregates of hip and knee replacements recorded in the National Joint Registry and Hospital Episode



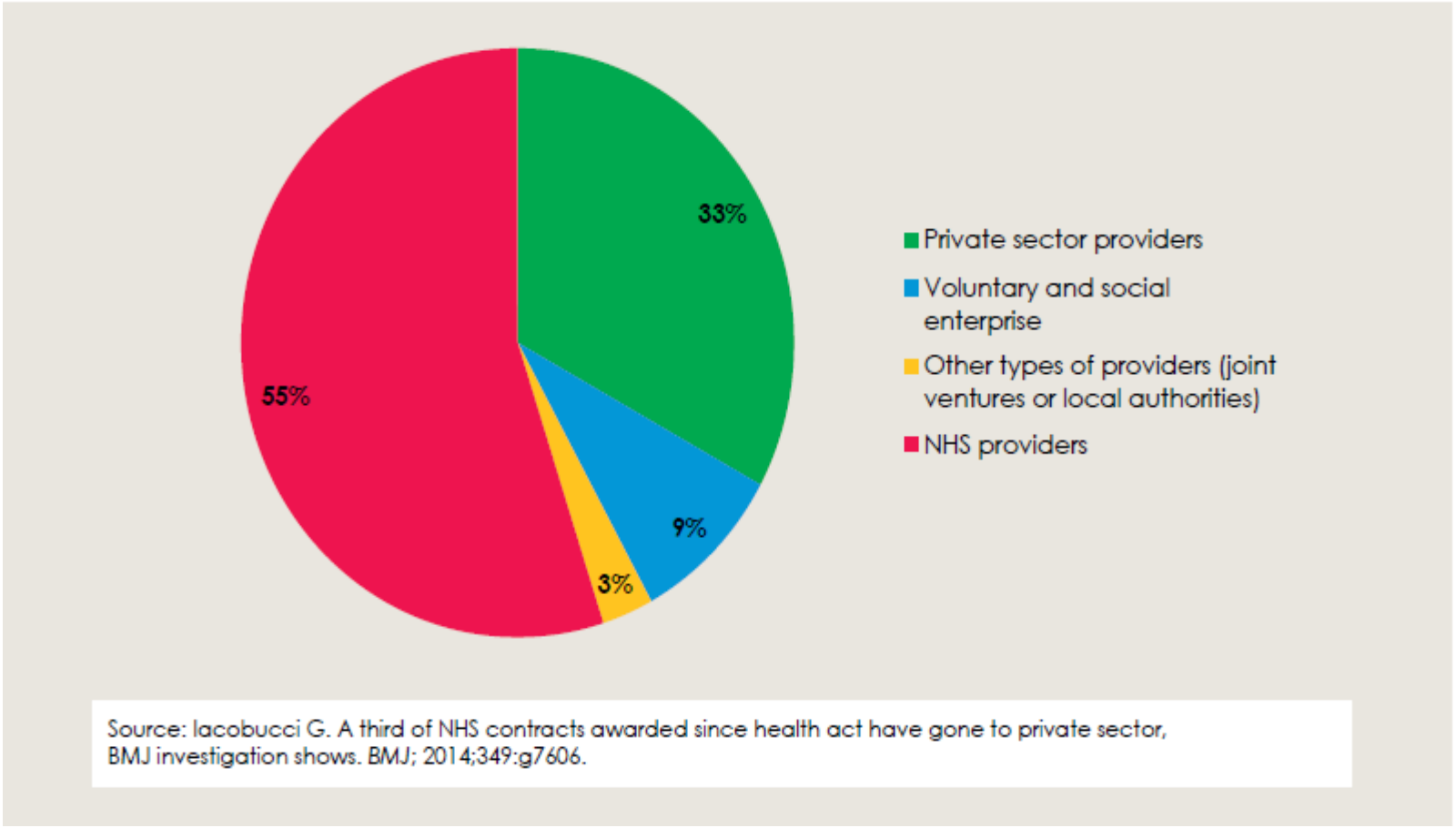
Source: NJR figures are taken from NJR (2012) Figure 1.1, p.28. HES figures are calculated using publicly funded hip and knee replacements in HES.

Total hip and knee implant sales, as recorded by the NJR, changed little between 2003/4 and 2011/12. However, the number of NHS-funded hip and knee replacements, as recorded in HES, increased by a third.

English NHS Commissioner spending with non-NHS providers 2006/07 - 2014/15 (constant prices)Commissioner spend as a proportion of total expenditure, 2006/07 to 2014/15



NHS clinical commissioning groups between April 2013 and August 2014



Source: Iacobucci G. A third of NHS contracts awarded since health act have gone to private sector, BMJ investigation shows. *BMJ*; 2014;349:g7606.

Price based competition

- **Evidence**

- **greater competition reduces costs and waiting times**
- **but may result in lower quality care for patients**
- **Particular issue where quality of care not visible to patients / GPs / commissioners**

- **Not appropriate to recommend wholesale price competition**

The Key studies

- **Cooper *et al* (2011)**
  Estimates the effect of competition on AMI mortality rates (2002-2008) using difference-in-difference model for 227 hospital sites. Patient choice policy was associated with a bigger reduction in AMI mortality in more competitive areas
- **Gaynor *et al* (2011)**
  Estimates the effect of competition on AMI mortality rates at 2 points – 2002 and 2007 – at Trust level. Hospitals which faced less competition had a smaller improvement in AMI mortality rates and saw their length of stay increase.

Studies of competition in the English NHS

Study	Reform	Main measure(s)		Years studied*		Main findings
		Degree of competition	Quality	Treatment	Control	
Propper et al[8]	Internal market	No of hospitals within 30 minutes' drive (including controls for population density)	30 day in-hospital mortality rate for acute myocardial infarction in over 50s	1995-6 to 1997-8	None	Increasing competition from the 25th to the 75th percentile increases mortality rates by 1%
Propper et al[9]				1992-3 to 1996-7	1991-2, and 1997-8 to 1999-2000	Hospitals exposed to competition increased elective admissions and decreased waiting times but had increased mortality. Overall effect was to save 1.32 million person months of waiting time, and lose around 11 800 life years due to earlier death. Costs exceed benefits on any reasonable valuation

Limitations with the evidence:

- The validity of the quality measure
- How well patient severity is controlled for in the analysis
- The robustness of distance measures as a proxy for competition
- Does market concentration = competition or could it be collaboration or differentiation
- Spill-over effects – lose of economies of scale and scope

Choice based competition – the theory

Choice increases quality if:

- **Patients and their GPs make decisions about where to be treated based on the quality of care provided**
- **Accurate information on variations in quality are available**
- **There are alternative providers available to the patient**
- **The payment per patient paid to providers is fixed**
- **The payment per patient paid to providers is fixed**
- **Providers are profit maximising**

Economies of Scale and Scope

Is health care a natural monopoly?

- **Evidence from volume-outcome literature in the US suggested positive relationship between volumes and outcomes**
- **Gaynor *et al* (2005) based on data from California 1983-99. If CABGs could only be performed in hospitals with a volume of 200 or greater the average mortality rate would fall from 2.5% to 2.05%.**
- **But gains are exhausted at relatively low thresholds (NHS Centre for Reviews and Dissemination 1997)**
- Evidence on costs does not support widespread economies of scale and scope. A number of DEA studies find average total costs flat or increasing with scale.
- **Evidence suggests economies of scale exhausted in the 100-200 bed range**
- **Diseconomies begin between 300-600 beds (Ferguson, Sheldon and Posnett 1997)**
- **No evidence for economies of scope (Lynk 1995, Treat 1976)**

Merger Evidence

But evidence on mergers reducing cost is inconsistent:
Dravnove *et al* (2003)

- Consolidation into systems does not generate savings even after 4 years.
- Significant and persistent savings from mergers after 4 years (14%). 'These savings may be primarily due to capacity reductions'.

Kjekshus and Hogen study of Norwegian mergers

- Significant negative effect of 2%- 2.8% on cost efficiency.

Impact on payers

Where merger results in less competition, prices rise (Vita and Sacher 2001).

Mergers between not-for profit hospitals found increase in prices (+23%)

NHS Evidence on Merger

Examine mergers which occurred between1997 and 2006 in England. Around half the general hospitals were involved in a merger.

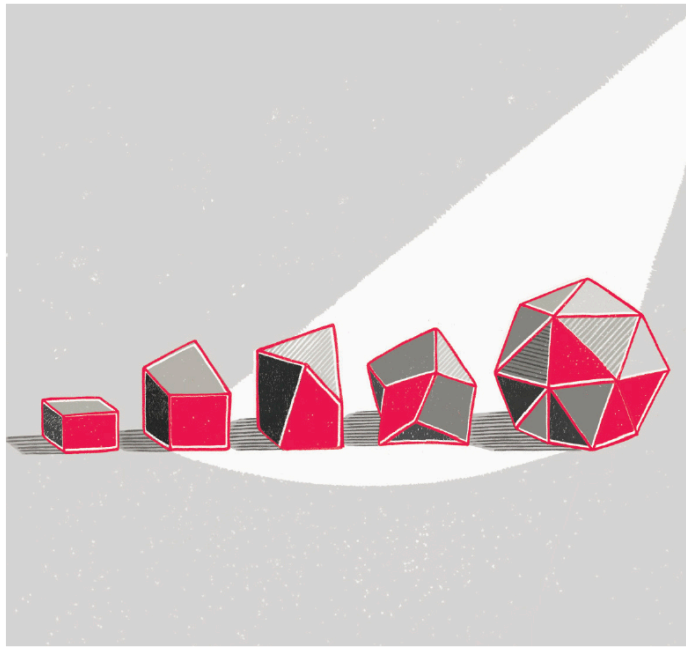
‘ We examine the impact of mergers on a large set of outcomes including financial performance, productivity, waiting times and clinical quality and find little evidence that mergers achieved gains. While admissions and staff numbers fell relative to the pre-merger position, which is desirable if the regulator wanted to remove spare capacity, labour productivity did not rise and financial deficits increased. And while most measures of quality were unchanged, there is no indication of an improvement in quality to offset this poorer financial performance. Further, in already concentrated markets, mergers brought about lower reductions in capacity. This suggests smaller gains in these markets.’

Source: Martin Gaynor, Mauro Laudicella and Carol Propper Can governments do it better? Merger mania and hospital outcomes in the English NHS Working paper 12/281 CMPO University of Bristol

About us

The Health Foundation is an independent charity committed to bringing about better health and health care for people in the UK.

We connect what works on the ground with effective policymaking and vice versa.



We shine a light on how to make successful change happen

Stay in touch

- Subscribe to our email newsletter
- Register for email alerts to be notified about our latest work
- Follow us on Twitter, Facebook, youTube or Linkedin

@Healthfdn
health.org.uk

Thank you

The Health Foundation