# Healthy competition

Professor Carol Propper of the ESRC Centre for Market and Public Organisation assesses the impact of competition between suppliers on the healthcare system

**GOVERNMENTS FACED WITH** rising costs and growing demand are constantly searching for methods of delivering higher productivity in healthcare, or, more simply, ways of getting higher quality without increasing expenditure. A current favourite is to encourage competition between the suppliers of care. But will this work? The appeal is simple - competition works in the rest of the economy, therefore it should work in healthcare. Unfortunately for politicians, this is not necessarily the case and the predictions of economic theory on this issue are quite ambiguous. But when prices are fixed by government and hospitals compete in terms of quality and not price, theoretical models do indeed support a relationship between competition and quality.

Testing this theory is difficult because the observed competitiveness of a healthcare market may be driven by quality. For example, the presence of a high-quality hospital may mean that competitors stay out of its market. Alternatively, hospitals in urban areas may face more competition but may also use cuttingedge technology and hence deal with more difficult cases and have worse quality outcomes. In these situations it will appear that greater competition is associated with lower quality, but competition is not the driving factor.

#### HOW COMPETITION AFFECTS QUALITY

The policy reforms that occurred in the NHS in mid-2000 provide an opportunity to test the relationship between competition and hospital quality. In Britain the last Labour administration introduced competition between healthcare providers as part of its drive to increase productivity in healthcare. In 2006 the government mandated that all patients must be offered the choice of five hospitals, and, by 2008, any hospital in the NHS for their treatment. The prices that hospitals could charge were also fixed. This policy change provided a natural experiment that researchers can exploit to understand the effects of competition on quality. Hospitals compete in geographical markets because patients prefer to be treated closer to home. Some hospitals will therefore be heavily exposed to the policy

(and competitive forces) because they are located in or near urban areas; others will be less exposed because they are in rural areas. Exploiting this fact allowed researchers at the ESRC Centre for Market and Public Organisation (CMPO) at the University of Bristol to explore outcomes before and after the introduction of competition across different markets. They examined all admissions to hospitals in the NHS (around 13 million) preand post-policy, leading to a number of findings.

First, the policy seems to have led to differences in patient flows between hospitals, even only two years after the reforms. Map A shows how exposed hospitals were to potential competition in their local markets just before the time of the policy introduction. Map B shows the change in exposure after the policy. In Map A, hospitals are represented by dots and the lightest shade of blue shows those hospitals most exposed to potential competition, while black indicates hospitals least exposed to potential competition. Not surprisingly, hospitals located in major conurbations (London, Birmingham, Manchester, Newcastle) are most exposed to



competition, while those in rural areas are least exposed. In Map B, hospitals with the biggest increase in potential competition are shown in dark red, those with the least in yellow. There is a clear set of hospitals located around urban areas that have experienced increases in

Competition works in the rest of the economy – it should work in healthcare potential competition, particularly in the South East outside London, but also around Merseyside, Bristol and Newcastle. This suggests that the policy might have an effect on a larger set of hospitals than just the set located in highly urban areas.

Second, the research finds that hospitals rated as better by the health quality regulator before the policy reform attracted more patients and from further away postreform. This suggests that patient choice is having some effect on their selection of hospitals and that more patients are choosing (with their GPs' help) to go to better hospitals.



#### Map B: Concentration levels: hospitals 2003/04-2007/08





Third, the research finds that hospitals located in areas where patients have had more choice since the NHS reforms have had higher clinical quality (as measured by lower death rates following admissions) and shorter lengths of stay than hospitals in less competitive areas. What's more, the hospitals in competitive markets increased their quality without increasing total operating costs or shedding staff, suggesting that the policy of choice and competition in healthcare can have benefits.

#### **MARKET FORCES IN HEALTHCARE**

One reason that the policy may be having this impact is the fact that prices are externally fixed. Research for Britain showed that when competition was introduced in the early 1990s, in an NHS regime that allowed hospitals to negotiate prices as well as quality, there was a fall in clinical quality in more competitive areas. This is confirmed by research in the US healthcare market, where prices are set as part of the bargaining process between hospitals and buyers of healthcare, and competition tends to be associated with poorer quality. These results also suggest that the details of policy matter, or, more generally, that the rules by which competition takes place matter for outcomes. Competition under fixed prices appears to be beneficial, while competition where hospitals bargain over price and quality does not.

This, in turn, has policy implications for governments – such as the present one – that are keen on market forces in healthcare. If competition is to be extended, price regulation can be useful. A free-for-all in prices risks a return to the 'internal market' of the 1990s, when hospitals competed vigorously on waiting times and ignored aspects of quality that are trickier to measure.

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## **Going private**

### What determines the demand for private schooling in Britain and Australia?

AN ESRC-AUSTRALIAN Research Council collaborative project carried out by researchers at the Institute for Fiscal Studies (IFS) and Australian National University (ANU) looked at changes in household demand for private schooling over the last 30 years in Australia and Britain. And at the economic and demographic determinants and effects of school choice in contemporary, comparable data focusing on issues that have not been covered in previous research. The aim was to provide a clearer picture of the demand for and determinants of school choice in both Australia and Britain, with the key innovation being not just to focus on the state sector, but to look at what drives choices between state versus private provision. Parallels and contrasts between the two countries were also a key focus.

The research found that there are big differences in patterns of private school attendance and school funding in Australia and Britain. The proportion of children in private education in Britain has remained broadly stable over the last 20 years (about seven per cent) whereas it has increased dramatically in Australia from 21 per cent in 1977 to 34 per cent in 2009. There is no direct state funding for private education in Britain whereas in Australia there is substantial state funding.

#### **DISTINCT SIMILARITIES**

Despite the differences in funding and participation between the two countries, the research found a striking similarity in terms of the determinants of participation, including: family income (higher family income increases demand for private schooling); parental education (children of more highly-educated parents are more likely to be privately educated); and family size (children from smaller families are more likely to be privately educated). But the most striking predictor of private school attendance in both countries is whether one or both of the children's parents attended such a school, with children being eight percentage points more likely to attend a private school if one of their parents attended one in Britain, and anywhere up to 20 percentage points more likely in Australia.

Demand for private education in Britain is also determined by price (higher fees reduce demand), and the quality of local state education – having higher quality state schools reduces demand for private schooling. One project also examined the role played by household income and income inequality within regions in Britain using the Family

The research found a striking similarity in terms of the determinants of participation Expenditure Survey between 1974 and 2009. This showed that families with higher household incomes are more likely to send their children to private schools, an unsurprising result given the level of private school fees. But the results imply that an increase in income inequality within regions

raises the proportion of parents choosing to send their children to a private school. This suggests that part of the rise in private school attendance during the 1980s may well have been driven by rising levels of income.

Finally, in Australia, private school children do better than similar state-educated children in terms of school outcomes and university entrance scores. This is consistent with similar British findings showing that privately-educated children do better at university and have higher earnings than state-educated children.

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Reasons for sending children to public schools in Britain and Australia are surprisingly similar