NHS hospital mergers: what benefits?

Around half the acute hospitals in England were involved in a merger during the late 1990s and early 2000s. CMPO research by Carol Propper and colleagues examines whether this wave of hospital consolidation brought any benefits.

Between 1997 and 2003, over half of the 200 or so acute NHS hospitals in England were involved in a merger, in which at least one hospital trust was absorbed into another. The scale of the consolidation was such that the average number of hospitals in a local health economy fell from seven to five.

The mergers were instigated by various parties, including local commissioners and the local strategic health authorities. These proponents argued that mergers would allow potentially failing hospitals to improve their clinical and financial performance. We have tested whether this assertion was correct. Our central finding is that mergers are unlikely to be the most effective way of dealing with poorly performing NHS hospitals.

Figure 1 shows the location of merged hospitals compared with non-merged hospitals. There were fewer mergers in rural areas – none, for example, in Cornwall and Norfolk – and more mergers in urban areas – London, for example. This is not surprising: there are already fewer hospitals in rural areas so it is more difficult to make a case that any should close. In general though, hospitals in most areas of the country were at risk of merger in the late 1990s and early 2000s.

Our research compares the pre- and post-merger performance of hospitals that merged with the performance of a 'control group' of hospitals. The use of a 'before and after the merger' approach (known as an 'event study') allows us to examine the effects of the merger; the comparison with a control group allows us to control for changes over time that would have happened anyway.

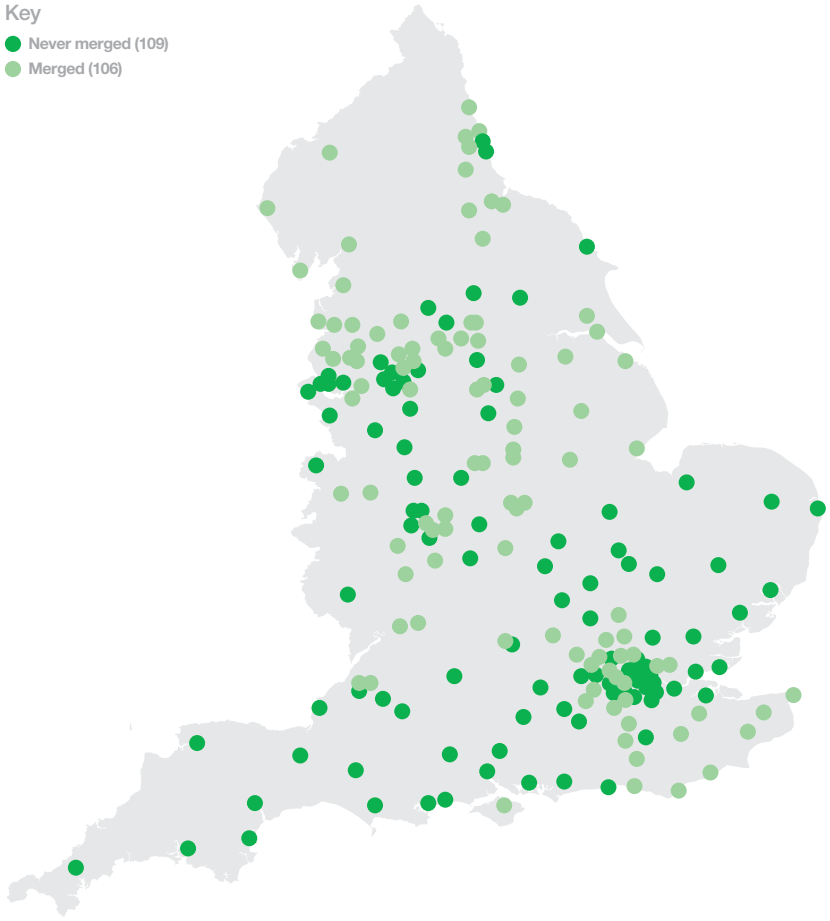
The control group we use is a subset of those hospitals that were not subject to a merger. In taking this approach, we allow for the fact that the hospitals that merged may have been different to those that did not. For example, those that merged may have experienced financial problems over a number of years.

So we have to match merging hospitals with a control group that are similar in key dimensions. To ensure that this approach identifies trusts that are actually similar, we take advantage of the fact that while a merger case is prepared with respect to economic fundamentals, whether it actually goes ahead depends on local politics.

In previous research, we have shown that hospitals located in or close to marginal constituencies (those won and lost by a small proportion of the votes) tend to be 'saved' from closure (Bloom et al, 2010). In other words, whether a merger goes ahead depends only in part on whether it is expected to bring benefits: it also depends on local politics.

This allows us to select a group of hospitals that did not merge and which are similar in terms of performance to those that did merge but differ in this key political dimension. It gives us our counterfactual control group of non-merged hospitals.

Figure 1
Location of merged and never merged acute hospitals in England 1997-2006



Mergers are unlikely to be the most effective way of dealing with poorly performing NHS hospitals

We compare the performance of merged and non-merged hospitals up to four years after the date at which a merger was agreed. We look at a large range of measures of performance, including the activity per staff member, financial performance, waiting times for elective surgery and a range of measures of clinical performance collected by the Department of Health and used to assess the performance of English hospital trusts.

We find that hospital admissions fell by around 10% four years after hospitals merged, but the number of staff fell by about

the same amount. So per staff member employed, there was no increase in activity. Poor financial performance continued, so that hospitals that merged were making larger deficits post-merger than pre-merger.

In addition, the length of time people had to wait for elective treatment rose post-merger, and there were few indications that clinical quality improved. So on average the impact of mergers was simply to reduce hospital-based activity without any gain in productivity or reduction in losses.

It is possible that some mergers were better than others. To examine this, we explore whether the effects of mergers in areas where there were a relatively few hospitals pre-merger were different from in areas where hospital density was greater. It might be expected that when mergers essentially turn the local health economy into a monopoly, outcomes might be different to cases where, even post-merger, there are quite a few local hospitals.

We find that mergers in areas where there was less capacity pre-merger were less likely to lead to reductions in activity and waiting times did not rise as much. But this was at the cost of larger increases in deficits. This finding suggests that these hospitals were perhaps more likely to have been able to exploit their monopoly power to keep drawing activity into the hospital, but at a financial cost.

Just as in the private sector, mergers offer much before the event but fail to deliver on their promise

We look at other characteristics of the mergers – for example, whether mergers in which one party was small and another large were better or worse or if having to absorb a hospital with a large deficit gave greater problems. We find no clear differences. In the last case, this is probably because few hospitals involved in mergers had large surpluses.

In summary, our study indicates that, just as in the private sector, mergers offer much before the event but fail to deliver on their promises. In the case of the NHS, all mergers have done is to reduce hospital activity.

Of course, this may be desirable if the activity is shifted into other settings, such as more appropriate treatment in a community setting. But we should note that this fall in activity was not accompanied by higher staff productivity or a drop in the level of deficits – in fact deficits rose. So cutting activity was not costless.

Together with earlier CMPO findings, which indicate that competition between hospitals has beneficial effects on quality (Gaynor et al, 2011), this new study has lessons for the newly created economic regulator of NHS foundation trusts. Monitor has a duty to promote efficiency and will need to establish an appropriate way of dealing with failing NHS hospitals.

Our research suggests that the promotion of competition brings gains. As mergers potentially threaten these gains by removing competing hospitals and since they do not bring savings or productivity gains, the case for mergers will have to be considered very carefully. It is not enough for those wishing to merge to hope that gains will arise: they will need to provide robust evidence.

This article summarises 'Can Governments Do it Better? Merger Mania and Hospital Outcomes in the English NHS' by Martin Gaynor, Mauro Laudicella and Carol Propper, Journal of Health Economics 31 (2012) 528-43, previously published as CMPO Working Paper No. 12/281 (http://www.bris.ac.uk/cmpo/publications/papers/2012/wp281.pdf).

Martin Gaynor is the E.J. Barone Professor of Economics and Health Policy at Carnegie Mellon University.
Mauro Laudicella is a Research Fellow at Imperial College London.
Carol Propper is a Professor of Economics at the University of Bristol and Imperial College London.

Further reading

Nicholas Bloom, Carol Propper, Stephan Seiler and John Van Reenen (2010) *'The Impact of Competition on Management Quality: Evidence from Public Hospitals'*, CMPO Working Paper No. 10/237 (http://www.bristol.ac.uk/cmpo/publications/papers/2010/wp237.pdf).

Martin Gaynor, Rodrigo Moreno-Serra and Carol Propper (2010) *'Death by Market Power: Reform, Competition and Patient Outcomes in the National Health Service'*, CMPO Working Paper No. 10/242 (http://www.bristol.ac.uk/cmpo/publications/papers/2010/wp242.pdf).