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Can governments do it better? Merger mania and hospital outcomes in the English NHS

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ABSTRACT

The literature on mergers between private hospitals suggests that such mergers often produce little benefit. Despite this, the UK government has pursued an active policy of hospital mergers, arguing that such consolidations will bring improvements for patients. We examine whether this promise is met. We exploit the fact that between 1997 and 2006 in England around half the short term general hospitals were involved in a merger, but that politics means that selection for a merger may be random with respect to future performance. 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 other than a reduction in activity. Given that mergers reduce the scope for competition between hospitals the findings suggest that further merger activity may not be the appropriate way of dealing with poorly performing hospitals.

1. Introduction

Public intervention in health care markets is pervasive throughout the world. In many countries the state not only finances health care through taxation but also manages provision, directly owning hospitals and employing staff. Examples include the National Health Services of the Nordic Countries, the UK, and Southern Europe. In countries with less centralized social insurance models of health care, many hospitals are also publicly run (for example, France). Even in the United States, which relies heavily on private markets in health care, there is an extensive government role, including publicly run hospitals and state control over entry or capacity.

In this paper we seek to provide evidence on whether public management of hospital markets enhances hospital performance. We focus on one particular issue: the impact of government instigated public hospital reconfigurations on subsequent performance of these hospitals. Analysis of private hospital mergers in the USA has generally concluded that these mergers bring little benefits in terms of prices and costs (e.g. Dranove and Lindrooth, 2003; Harrison, 2011; Vogt and Town, 2006). Our paper asks whether governments do better.

We study a wave of hospital mergers in England between 1997 and 2006. In 1997 the Labour Party, led by Tony Blair, won a landslide election victory. One of the major platforms of the election campaign was to reverse the policy of competition between public hospitals for publicly funded contracts for health care that had been instigated by the previous Conservative administration.[1] Following their election victory, the administration undertook a radical programme of hospital closure that merged together many hospitals that were co-located geographically. The scale was such that out of 223 short term general hospitals in England in 1997, 112 had merged between 1997 and 2006. The median hospital market went from 7 to 5 hospitals.

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[1] All individuals in the UK are entitled to tax funded public health care. There is a small private sector which provides services for which there have been historically long waiting lists in the public sector.

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We exploit two features of the English hospital market to try to identify the causal impact of merger on English hospital performance. First, we exploit the large scale nature of the merger activity. The fact that mergers are a common event means that participation in a merger may be less likely to be affected by selection on unobservables than in cases where mergers are rare. Second, we appeal to the fact that whether a hospital in the UK is merged or not extent depends not just on financial or clinical performance, as in a private market, but also on national politics. The NHS is a major political issue and hospital closures are not popular with the UK public. As a result, national politicians get involved in campaigns against local closures. In the UK's "first past the post" system, where the politician is in a safe seat (i.e. they have a large majority) campaigning against a closure will not alter the chances of their being re-elected. Where their seat is marginal and they could lose it if voters swing away from them, campaigning against closure may bring them electoral advantage.[2] But such campaigns are not associated with post election hospital funding. As support for this, Bloom et al. (2010) show that political marginality in a local area affects the number of hospitals in that area but is not associated with their post election funding.

We use these two stylised facts to justify a matching approach to identify the impact of mergers. Hospitals which are similar on observables will have different probabilities of closure, not because they differ in terms of unobservables, but because of political marginality. Using matching, we compare the change in performance of those hospitals that merged with those that did not over a 6 year window, looking at performance from two years before to four years after the merger date. We examine activity, staffing and financial performance and a large set of measures of clinical quality.[3] We find that a merger results in a fall in the scale of a hospital in terms of total activity and total staffing. But that other than this removal of capacity, we find little evidence that performance improves due to merger. Post merger, financial performance declines, labour productivity does not change, waiting times for patients rise and there is no indication of an increase in clinical quality.

The paper contributes to a number of different literatures. First, we contribute to research on hospital mergers. Almost all the extant evidence is from the USA. A number of these studies are "merger retrospectives" (Haas-Wilson and Garmon, 2011; Tenn, 2011; Thompson, 2011; Sacher and Vita, 2001). They study the impact of a particular merger.[4] The policy we exploit led to around 1/4 of hospitals disappearing. Our study is therefore more similar to studies which have examined the impacts of large numbers of hospital mergers in the US during the 1990s (e.g., Dafny, 2009; Ho and Hamilton, 2000; Krishnan, 2001; Spang et al., 2001; Town et al., 2006). These studies find, in general, little benefit from merger and consolidation. These mergers are the result of private decisions, as opposed to central planning, and hospitals are mostly private firms. As a consequence, the evidence may not be directly applicable to public systems.[5]

Second, we contribute to the literature on health reform. Our work is particularly pertinent to the debate over the use of competition as a means to improving hospital productivity. This literature suggests that under certain conditions (regulated prices and observable quality) competition can improve quality (e.g. Gaynor and Town, 2012). In the UK recent pro-competitive hospital reforms appear to have increased quality (e.g. Gaynor et al., 2010; Cooper et al., 2011) and competition has been shown to result in better management of hospitals, which in turn improves a range of outcomes (Bloom et al., 2010). Large scale merger activity reduces the opportunity for competition, potentially threatening these gains.

Third, we contribute to research on whether planned systems in welfare provision achieve better outcomes than the private market. There has been a great deal of interest in recent years in competition in education, both theoretically and empirically (e.g., Epple and Romano, 1998; Hoxby, 2000; Epple et al., 2004). Initial positive findings on the impact of competition in education (e.g. Hoxby, 2000) gave impetus to attempts to promote competition. These findings, however, have been challenged by later research which suggests that the benefits from competition are less easy to achieve (e.g. Rothstein, 2007; Bayer and McMillan, 2005). Our findings suggest that, in the case of UK hospitals, configuration of the market by government does not result in the promised gains either. Our results thus add to the evidence on the conditions under which gains from competition in the provision of public services may be realized.

The paper is organised as follows. In Section 2 we discuss the background to reconfigurations of hospitals in England during the period we study. In Section 3 we discuss our methodology. In Section 4 we present the data and in Section 5 the results. Section 6 concludes.

2. Hospital reconfiguration in the UK

The election of the Labour government in the UK in 1997 led to a wave of hospital reconfigurations as the government sought to roll back the pro-competitive reforms of its Conservative predecessor and to manage local service configuration. The Conservative administration had established UK public hospitals as free standing entities, known as hospital trusts, from 1991 onwards (Propper et al., 2008).[6] These hospitals were wholly publicly owned. Each was led by a single management board responsible for meeting financial and quality objectives set by the government. Hospitals were supposed to break even each year. Large scale capital expansion was funded by loans from the private sector. Hospitals competed with each other to secure contracts from public sector buyers of health care, known as purchasers, who selectively contracted with hospitals on behalf of a geographically defined population. Individual patients had no choice of purchaser and funding of purchasers was on a capitation basis, adjusted for population need.

[2] A vivid example was the 2010 election where the (then) Labour health minister reversed a decision to close a London hospital that was located near a very marginal Labour constituency just five days prior to the election. See http://www.guardian.co.uk/politics/2010/apr/29/whittington-hospital-closure-halted.

[3] Ho and Hamilton (2000) was the first study to examine the impact of mergers on hospital outcomes.

[4] There are a small number of case studies of hospital mergers in the UK post 1997. Fulop et al. (2002) and Hutchings et al. (2003) undertake a case study of three (Fulop et al.) and eight (Hutchings et al.) mergers in one city (London). Their focus is on saving s in management costs post merger. They find little evidence of this and highlight the fact that pre-merger forecasts of savings are over-optimistic ex-post.

[5] The US Veterans Administration health care system underwent an administratively driven reorganization in the 1990s (see Kizer and Dudley, 2009). Like the NHS, this was also a top down administrative reorganization, although unlike the NHS it was not primarily characterized by hospital mergers.

[6] An NHS "hospital trust" is a financial, managerial and administrative unit and may cover more than one physical hospital, all of which are located closely in geographical space. We use the term "hospital" rather than "hospital trust" for expositional convenience.