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Does hospital ownership affect patient experience? An investigation into public–private sector differences in England☆

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ABSTRACT

Using patient experience survey data, the paper investigates whether hospital ownership affects the level of quality reported by patients whose care is funded by the National Health Service in areas other than clinical quality. We estimate a switching regression model that accounts for (i) some observable characteristics of the patient and the hospital episode; (ii) selection into private hospitals; and (iii) unmeasured hospital characteristics captured by hospital fixed effects.

We find that the experience reported by patients in public and private hospitals is different, i.e. most dimensions of quality are delivered differently by the two types of hospitals, with each sector offering greater quality in certain specialties or to certain groups of patients. However, the sum of all ownership effects is not statistically different from zero at sample means. In other words, hospital ownership in and of itself does not affect the level of quality of the average patient's reported experience. Differences in mean reported quality levels between the private and public sectors are entirely attributable to patient characteristics, the selection of patients into public or private hospitals and unobserved characteristics specific to individual hospitals, rather than to hospital ownership.

1. Introduction

An important element of the recent reforms of the health care system in England has been the introduction of private-sector providers alongside National Health Service (NHS) ones. Thus, 36 Independent Sector Treatment Centres (ISTCs) from the private sector have been contracted by the NHS, in two waves since 2002, to provide elective surgery and diagnostic procedures to NHS patients. Although health care remains free to the patient, it may be provided by a private, for-profit hospital or by a public-sector (i.e. NHS) hospital. The use of ISTCs is intended to increase capacity in order to cut waiting lists for routine procedures. Patients, advised by their General Practitioners (GPs) are also gradually being offered

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an increased degree of choice among providers.[3] More generally, some of the aims of the introduction of private-sector providers have been to encourage cost reductions and promote innovation and responsiveness to patients throughout the health care system (Allen, 2009).

Private, for-profit organisations are generally thought to have greater incentives to minimise costs than public sector ones. There is evidence that management practices in ISTCs are on average closer to manufacturing good practice than in NHS hospitals (Bloom et al., 2009) a difference which could reflect stronger incentives to control costs in ISTCs. However, the effect of ownership on service quality is less certain. International empirical findings on the compared clinical quality of for-profit, non-profit and state-owned hospitals are inconclusive (see, e.g. Sloan et al., 2001; Eggleston et al., 2008; Lien et al., 2008). A growing body of literature suggests that profit incentives may have complex effects in public service provision. Certain aspects of quality may be under-supplied by private firms commissioned to provide public services, while in other areas quality may improve with for-profit supply, depending on the contracting situation, the incentives provided to staff and staff motivation (Hart et al., 1997; Bénabou and Tirole, 2006; Besley and Ghatak, 2003).

In this paper, we use new patient experience survey data to examine whether hospital ownership has an effect on the level of quality reported by patients in the areas of information and interpersonal care, respect for privacy, dignity, and hospitality and delays. We also investigate whether different aspects of patients' experience are affected in different ways by hospital ownership. Severe informational asymmetries imply that patients may not always be well placed to assess the clinical quality of health care. However, other dimensions of care quality such as cleanliness or privacy can be observed by patients. Indeed, it can be argued that certain aspects of quality are best measured by patients, as for example whether patients are given explanations they can understand about the operation or side-effects of medication, or whether they are treated with dignity. The data we use come from surveys carried out annually among in-patients of NHS hospitals by the Care Quality Commission and among ISTC patients by the Department of Health. The surveys cover large samples of patients in both public and private hospitals and include identical questions about the patient's experience, ranging from the cleanliness of facilities and food quality to explanations provided by medical staff, delays, privacy and dignity.[4] The data also include information about patients' characteristics, their state of health and overall area of treatment (hospital specialty).

Our approach is to test whether hospital ownership affects the quality of the experience reported by patients once we take into account observed patient characteristics and other relevant factors that may influence the quality of patients' reported experience. In particular, we control for the selection of patients into one of the two sectors and for confounding factors associated with unobserved individual hospitals' characteristics. Quality is measured using scores constructed from patients' answers along several "domains" of care quality defined by the Care Quality Commission from some of the survey questions, as well as three dimensions we identify using factor analysis on the whole data set. We estimate a switching regression model in order to test not only for an overall effect of ownership on the level of quality, but also for the possibility that public and private hospitals deliver quality differently, so that patients' characteristics, self-rated state of health, length of stay and hospital specialty play a different role in determining the level of quality reported by patients in public and private hospitals. ISTCs have been contracted to treat routine cases, while patients with more severe, complex or risky conditions, which may affect the quality of their reported experience, are directed to NHS hospitals. Non-random factors, such as co-morbidity and risk, can therefore cause individual patients to be referred to a public or to a private hospital. We incorporate this selection into the model. Finally, we use hospital fixed effects to control for unobserved hospital-specific characteristics such as resources or the age of the premises that are not systematically related to ownership but may be correlated with it and affect patient-observed quality (for example by influencing staffing levels or spare capacity). Hospital fixed effects keep these unobserved hospital-specific characteristics constant and focus the analysis on variations among patients in each hospital (Glick, 2009). Our approach thus makes it possible to isolate ownership effects from the components of the level of care quality reported by patients that are attributable to observed and unobserved patient characteristics determining the choice of hospital and unobserved hospital-specific characteristics that are present in both public- and private-sector hospitals but may be relatively more frequent in one of the two sectors (such as new premises, for example) for reasons other than ownership.

We find that the experience reported by patients in public and private hospitals is different, i.e. most dimensions of quality are delivered differently by the two types of hospitals, with each sector performing better in some areas of quality in certain specialties and/or for certain groups of patients. However, the sum of all ownership effects is not statistically different from zero at sample means. In other words, hospital ownership in and of itself does not affect the level of quality of the average patient's reported experience. Differences in average quality levels reported by patients in the private and public sectors are entirely attributable to patient characteristics, the selection of patients into public or private hospitals and hospital-specific characteristics that are not systematically dependent on ownership.

Theoretical hypotheses and their applicability to the case of NHS hospitals and ISTCs are briefly reviewed in the next section. The data, empirical issues and our empirical strategy are presented in Section 3, the empirical model in Section 4 and our findings in Section 5. Conclusions are drawn in Section 6.

2. Ownership and quality of care

Hart et al. (1997) argue that in a for-profit organisation contracted by a government to provide public services on the basis of a fixed fee for service the incentive to minimise costs will dominate incentives to innovate and improve quality (for which higher prices would have to be negotiated). As a result, the private provider will under-supply quality in areas where the level of quality is not specified in precise terms in the "contract" (the set of regulations applying to the private contractor) but is directly related to costs.[5] If reducing costs does not damage quality, the private firm will supply higher quality in that model. In contrast, if there is little opportunity to reduce costs and public sector employees are able to derive significant benefits from improvements in quality, public provision will provide higher quality and be associated with higher

[3] For a review of the competition aspect of the reforms, see Sussex (2009).

[4] The surveys do not cover clinical quality or the effectiveness and safety of emergency procedures.

[5] "Incomplete contracts" in this sense are the rule, as uncertainty makes it impossible to specify all eventualities in a contract or regulation and instead makes it desirable (i.e. cheaper) to allow flexibility in the contract, for example by allocating control over decisions regarding how to respond to new events (Coase, 1937). In Hart et al.'s terms, the level of quality provided in the areas not fully specified in the contract is observable (e.g. by patients here) but not verifiable.