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The quasi-market for adult residential care in the UK: Do for-profit, not-for-profit or public sector residential care and nursing homes provide better quality care?

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Abstract

There has been a radical transformation in the provision of adult residential and nursing home care in England over the past four decades. Up to the 1980s, over 80% of adult residential care was provided by the public sector, but today public sector facilities account for only 8% of the available places, with the rest being provided by a mixture of for-profit firms (74%) and non-profit charities (18%). The public sector's role is often now that of purchaser (paying the fees of people unable to afford them) and regulator. While the idea that private companies may play a bigger role in the future provision of health care is highly contentious in the UK, the transformation of the residential and nursing home care has attracted little comment. Concerns about the quality of care do emerge from time to time, often stimulated by high profile media investigations, scandals or criminal prosecutions, but there is little or no evidence about whether or not the transformation of the sector from largely public to private provision has had a beneficial effect on those who need the service. This study asks whether there are differences in the quality of care provided by public, non-profit or for-profit facilities in England. We use data on care quality for over 15,000 homes that are provided by the industry regulator in England: the Care Quality Commission (CQC). These data are the results of inspections carried out between April 2011 and October 2015. Controlling for a range of facility characteristics such as age and size, proportional odds logistic regression showed that for-profit facilities have lower CQC quality ratings than public and non-profit providers over a range of measures, including safety, effectiveness, respect, meeting needs and leadership. We discuss the implications of these results for the ongoing debates about the role of for-profit providers of health and social care.

Keywords: residential care; nursing homes; ownership; quality of care; facility regulation and control; public sector; public services; quasi-markets; England

The quasi-market for adult residential care in the UK: Do for-profit, not-for-profit or public sector residential care and nursing homes provide better quality care?

Introduction

Many countries are facing the challenge of providing health and social care to populations containing increasing proportions of elderly people. In the UK, for example, there are expected to be 3.2 million people over the age of 85 by 2034, more than double the number today (ONS 2015). In addition, it is expected that a high proportion of elderly people will be living on their own, a factor strongly associated with the need to move into a residential or nursing care home. Faced with increasing fiscal pressures, many governments have been considering alternatives to public provision of health and social care. Up to the 1980's over 80% of adult residential care was provided by the public sector, but today public sector facilities account for only 8% of the available places, with the rest being provided by a mixture of for-profit firms (74%) and non-profit charities (18%). The public sector's role is often now that of purchaser (paying the fees of people unable to afford them) and regulator.

In essence, then, residential and nursing care outside of hospitals in the UK, once provided mainly by the public sector, has been turned into a form of quasi-market, differing from a conventional market in that a significant number of providers are not-for-profit organizations and by the fact that a large proportion of the individuals who use residential and nursing care do not purchase the service directly; the state acts as purchaser on their behalf. (LeGrand and Bartlett 1993). Even in these cases, though, the individual member of the public has considerable freedom of choice as to where they will receive their residential

or nursing home care and significant numbers of people pay some or all of the cost of their care themselves.

Despite the fact that the marketization of residential care is so well advanced in the UK, there has been little UK-based research into the quality of care provided by for-profit providers as contrasted to that enjoyed by residents in local authority or non-profit operated facilities. The main question answered by this paper, then, is whether there are differences in the quality of care provided in adult residential and nursing home facilities in England depending on whether the facility is operated by a local authority, a not-for-profit organization, or a for-profit business. While this is an important question in its own right, we also discuss the extent to which it might inform broader debates about the impact of market-like structures in health and social care more broadly.

Theory

The current arrangements by which residential and nursing home care is provided to adults in England can be called a *quasi-market* (LeGrand and Bartlett 1993). Such arrangements are similar to conventional markets in that the provision of goods or services is the outcome of an economic exchange between two parties, a *provider* and a *purchaser*, and in that there is some sort of competition among the set of providers. Quasi-markets differ from conventional markets in that some of the providers are not necessarily motivated by a desire to maximise profits; there may be publicly owned or non-profit organizations involved as well. Quasi-markets differ also in that at least some of the purchasing is done not by the individual service users, but by a public body acting on their behalf. In the case of care homes, significant numbers of residents are paying their own

fees (41% in the UK in 2014), but most facilities have both self-pay and state-funded residents LaingBuisson (2014).

Quasi-markets have been replacing organization by government bureaucracies in several areas of public sector in the UK over several decades, including education, health, and social care. The rationale for the change is that, it is claimed, quasi-markets will prove superior to bureaucratic control in one or more of the following respects (Bartlett and LeGrand 1993). First, services may be delivered more *efficiently*, in the sense that an equivalent standard of service is delivered at a lower cost. However, given that standards may be difficult to evaluate, a common concern of critics of marketization is that reductions in cost will be achieved by means of a reduction in standards. Second, private providers may be more *responsive* to user needs than their public sector counterparts. In contrast to possibly monopolistic public sector providers, the introduction of competition creates incentives to innovate and adapt to consumer needs and hence improved standards of care should follow. Third, quasi-markets are often associated with increasing the *choice* available to users. It might be that the availability of choice is intrinsically desirable, and it is in any case a logical requirement for there to be competition among providers. Choice might be associated with differentiation in the types of provision available, for example by size, geography and level of care provided.

In order to deliver these benefits it is necessary that there is an element of competition among providers, with at least some risk that those providers that fail to attract sufficient users, or are unable to operate within budgetary constraints, will be forced to cease operating. Competition is the essential mechanism by which quasi-markets differ from bureaucracies. It is particularly important that there is effective competition when, as in

the case of residential care, there is a preponderance of for-profit providers. Such businesses, it is conventional to assume, are motivated by a desire to maximise profit. Their desire to provide high quality care would, therefore, be the result of the expectation that they would only be able to attract residents by offering a sufficiently high quality of service. Hart (1999) has pointed out that, where consumers purchase a service direct from a provider, assuming they are well informed, competition produces the expectation that for-profit providers will be of higher quality because they have a greater incentive to innovate than do public sector providers. However, the care home market is more complex than this because, while some residents do indeed purchase their care directly from the provider with no government involvement, others are in places that are funded by their local authority.

It has been argued that profit-maximizing may not be an accurate characterisation of the motivation of some private providers in this sector (Knapp et al. 2001; Kendall et al. 2003). For example, small business owners may have a “mercantile” motivation: they place value on the independence and sense of autonomy that derives from running their own business. The existence of heterogeneous motivations among for-profit providers may make the distinction between care homes in different sectors less clear cut.

The motivation of providers from the public and non-profit sectors is also unclear. Certainly in the case of non-profit providers that are charities, we might think that their motivation is to provide high quality care and therefore that they would strive to do so even in the absence of competition, assuming that there are enforceable restrictions on their ability to distribute any surpluses to owners, employees or trustees (Hirth 1999;

Grabowski & Hirth 2003). They may not even need to break even financially if they have alternative, philanthropic sources of finance.

Is there reason to believe that competition among providers of residential and nursing home care in England is strong? Over 50% of care homes in England are operated by owners that run four or fewer facilities. There are no major brands in the residential care market in England (LaingBuisson 2014), while the median size of these facilities is 23 beds. These factors imply low barriers to entry into the market, which reinforces the expectation that the market should be very competitive (Porter 1980). Forder and Allan (2014) conducted an analysis of competition in the care homes market in England. While they did indeed find that there was evidence of competition, they also showed that this can have the surprising consequence of reducing quality because homes will find it harder to attract self-payers (who generally pay higher prices) while allowing the local authorities to push the prices they pay down. If for-profit providers are less concerned with quality, then it would be expected that quality will be lower in for-profit facilities even in the presence of competition.

In any event, competition will only have an impact if potential service users can accurately assess the quality of care they will receive, and if existing users are able to switch providers if they are dissatisfied. One reason why this may be problematic is that it may be difficult for people to evaluate the quality of facilities before they have moved in. People often move in to residential care in a time of crisis, such as the death of a spouse or deteriorating health, so they may find it difficult to visit candidate facilities in advance, and they may be relying on other people (such as family members) to choose for them. Even if pre-admission visits are possible, it is difficult to evaluate what the experience of living in a

facility will be like during a short visit. This might not matter as much if it were easy for people to move to a different facility if they are unhappy with their first choice, but we know that such moves are very rare in practice, in part because of concerns for the adverse impact of such moves (Grabowski and Hirth 2003). Under such circumstances, the incentive to compete on quality may be attenuated, with price becoming a more important factor in the minds of potential residents (Forder and Allan 2011). In addition, for-profit homes may have an incentive to reduce quality so as to reduce costs and hence increase returns to owners. This reasoning leads to the hypothesis that the quality of care provided in facilities owned by for-profit providers will, on average, be lower than that provided by facilities operated by a public authority or non-profit organization.

However, this ignores the role played by the industry regulator, which in England is the Care Quality Commission (CQC). The regulator may have an impact in two ways. First, their inspection regime and ability to enforce standards of care may result in a reduction in variation in the quality of care. It is still possible that public and non-profit providers could be more likely to provide care that significantly exceeds the minimum standards required by the regulator, but regulation should provide a floor below which standards do not drop. Second, the CQC's inspection reports and quality ratings are freely available to the public via the CQC's own website and via third party websites that are intended to make it easier for people to locate residential and nursing care facilities in the geographical area of their choice. As a result, the people searching for a care home may be better informed than they would have been before the widespread availability of regulatory inspection ratings via the internet.

We should also consider the possibility that there is variation in the degree to which users, or potential users, of residential care are well informed. It may be that people who are able to access the internet, who are able to visit and compare facilities, or who are able to draw on the support and advice of family members and friends will be relatively well positioned to form accurate judgements about the relative quality of different facilities, while others who are not in this position will be less well informed. Arrow (1963) argued that many people who find it difficult to assess a facility's quality will prefer non-profit or public sector providers because such organizations will be perceived to be motivated to deliver high quality care, with no conflict of interest caused by the pressure to deliver returns to investors. If so, then it follows that for-profit providers will be competing for users who are better informed than average, and this will force them to maintain quality. In other words, competition from non-profit and publicly operated facilities plays an important function in influencing the quality of for-profit providers over and above that of straightforward competition among for-profit providers.

These arguments are all consistent with the hypothesis that for-profit operated facilities will tend to have lower quality, although such tendencies may be mitigated by the existence of a regulator and competition. However, in the presence of a competitive market and well-informed customers it is possible that for-profit care homes that are part of a large corporate group could offer superior quality to non-profit or for-profit facilities run by small organizations if there are significant economies of scale. There is evidence of economies of scale at the level of individual facilities (Christensen 2004; Farsi and Filippini 2004; Hoess et al. 2009), although these are modest, certainly at the scales typical in the UK. Even larger facilities tend to be organized into separate "wings", and so economies of

scale are limited (LaingBuisson 2014). Furthermore, at least one study has suggested that firms have used this as a way of offering reduced prices rather than increases in quality in care homes in the UK (Forder and Allan 2011). There may, however, be multi-unit economies of scale associated with the increasing size of residential care groups. Evidence on this is mixed (Baum 1999). For example, Cohen and Dubay (1990) find chain facilities reported lower costs, but other studies have failed to find similar evidence (Chen and Shea 2004). Given this weak evidence, we would still expect that for-profit providers will be of equal or lower quality than those in the non-profit sector.

Literature review

There is little existing evidence on quality differences in health and social care provision between public, non-profit and for-profit providers in the UK, although there is a significant literature from elsewhere, especially the US. Recent evidence suggests that there is no difference in the quality of patient care provided by NHS and for-profit hospitals in the UK when one controls for the fact that NHS patients being treated in hospitals operated by for-profit providers are generally receiving routine care (Perotin et al. 2013). In the case of care homes, Gage et al. (2009) analysed quality among a set of care and nursing homes in a single English county (N = 245). Relative to non-profit and public providers (which they combined into a single group), they found some evidence of higher quality in homes run by for-profit providers that were part of a group of three or more homes, but lower quality among other for-profit homes. Forder and Allan's (2014) analysis of the impact of competition in the English care homes market found that for-profit providers were associated with lower levels of both quality and price than voluntary sector homes.

Looking beyond the UK, Comondore et al. (2009) conducted a systematic review and meta-analysis of research comparing the quality of care in for-profit and not-for-profit nursing homes. Their review included 82 articles, of which 72 were from the United States. Of the 82 studies, 40 showed greater quality of care in the not-for-profit sector, but a further 37 studies were unable to reach conclusions either way. Only three studies found clear evidence for higher quality in the for-profit sector. In Europe, Stolt, et al. (2011) conducted a study comparing public and private for-profit residential care provision in Sweden. Their results showed that public sector facilities generally had better “input” measures of quality, such as staffing levels. However, aspects of service, such as residents being involved in the formulation of their care plan, favoured private contractors.

Hypothesis:

The quality of residential and nursing care homes operated by for-profit providers will be lower than those operated by public authorities and/or non-profit organizations, controlling for a range of other variables that are associated with quality.

Data and methods

The data we analyse were provided by LaingBuisson, specialist consultants in this field. They compile data on registered care homes in the UK, a total of 19,721 facilities. The data set contains, among other fields, whether the provider is a local authority, non-profit or for-profit organization; and the results of the most recent CQC inspection, if any. As the CQC is only responsible for inspecting facilities in England, analysis is restricted to this subset of homes. There are 16,761 facilities in total, but missing data reduces the number of homes available for analysis; actual numbers are shown in the tables of results. These facilities are

all those registered to provide care to adults, of which 9,678 are primarily registered to provide care to people with dementia or over 64 years of age; 5,256 for adults with learning disabilities; and 1,252 for adults with mental health problems. We carried out additional analyses that used only homes for older people; results are substantively similar to those reported below.

Quality of care measure

The outcome measures used in this paper are derived from the CQC's inspection reports. The most recent report available for each home is used in the analysis; the earliest report is dated 4 April 2011 while the most recent is dated 14 October 2015. CQC inspections of residential adult social care services are carried out by means of unannounced visits by inspectors. These visits are informed by quantitative indicators, including incidence of pressure sores, medication errors and falls; these are treated as indicators of possible risks to be investigated rather than as the basis for inspection ratings. The inspections use a range of evidence gathered by means of interviews with residents and staff, observations of care, reviews of records and care plans, inspections of the physical environment, and a review of documents and policies. Each inspection results in the production of a report, publicly available on the CQC website. Details of the inspection methods are available from the CQC (2016a). The results of CQC inspections are currently the only feasible way of comparing the quality of all the facilities in the population of English residential and nursing homes. Inspection outcomes are summarised by giving each facility a rating on five *fundamental standards*. These are:

1. **Is the service safe?** Are the residents protected from abuse and avoidable harm?
2. **Is the service effective?** Residents receive care that achieves good outcomes, helps maintain quality of life and is based on the best available evidence.

3. **Is the service caring?** Staff involve residents and treat them with compassion, kindness, dignity and respect.
4. **Is the service responsive to people's needs?** Services are organized so that they meet the needs of residents.
5. **Is the service well-led?** The leadership, management and governance of the organisation make sure it's providing high-quality care that's based around your individual needs, that it encourages learning and innovation, and that it promotes an open and fair culture.

Details of how each of these standards are evaluated are provided by the CQC (2016a).

Each of the five standards is sub-divided into a number of key questions that the inspection team is required to answer. For example, when evaluating the safety of care, inspectors have to ask "How are people protected from bullying?", "How are risks to individuals and the service managed so that people are protected and their freedom is supported and respected?", "How does the service make sure that there are sufficient numbers of suitable staff to keep people safe and meet their needs?", and "How are people's medicines managed so that they receive them safely?"

Each of these five standards is each given one of four ratings: Outstanding ("the service is performing exceptionally well"); Good ("the service is performing well and meeting expectations"); Requires improvement ("the service isn't performing as well as it should, and has been told how it must improve"); or Inadequate ("the service is performing badly, and enforcement action has been taken"). By law, these ratings have to be displayed in the residential care facility where they can easily be seen, and they also have to be shown on the facility's website.

One possible critique of these ratings is that they involve an element of subjectivity, which some might consider a disadvantage relative to studies that draw on quantitative measures. For example, Comondore et al. (2009) describe 24 studies of nursing home

quality that use pressure ulcer prevalence as the quality measure, 21 that measure the use of physical restraints, and 4 that use mortality. However, inspector ratings are based on a very wide range of information sources, which includes quantitative records, but importantly also draw on direct observation and obtaining the views of residents and their families. Therefore, the inspector ratings are based on much richer sources of data than are those that use simple quantitative measures. There remains the possibility that ratings are influenced by conscious or unconscious biases among inspectors. The CQC guards against this by means of independent quality assurance panels that look at samples of inspection judgements to check consistency. It is worth bearing in mind that quantitative outcome measures are likely to be associated with the level of residents' needs and therefore it would be problematic to use such measures without robust controls for the level of needs, which are not available for UK care homes.

While the above describes the current CQC rating system, there was an earlier inspection regime, which rated what were called *essential standards*. Currently, more than half of the most recent inspections available to us used these earlier standards, so we also use these ratings in our analysis. The previous assessment criteria were grouped into five *chapters*:

1. Standards of caring for people safely & protecting them from harm.
2. Standards of staffing.
3. Standards of treating people with respect and involving them in their care.
4. Standards of providing care, treatment & support which meets people's needs.
5. Standards of quality & suitability of management.

Each of these five "chapters" was give one of three ratings: All standards met; At least one standard not met; At least one standard not being met requiring enforcement action.

In addition to separate analyses of the facilities that have old and new-style inspection ratings, we also combine them so that we can analyse the entire set of care facilities. To do this, we have to make the two inspection regimes consistent by coding them both into three categories: *Good*, which includes the “Outstanding” as well as the “Good” category in the new system, and is equivalent to “all standards met” in the old system; *Poor*, which includes “requires improvement” from the new system and “at least one standard not met” under the old regime; *Inadequate*, which, as well as the category of this name in the new regime also includes “at least one standard requiring enforcement action” from the old standards. We carry out three sets of analyses, one based on facilities that were subject to the older rating system; one based on the new inspection system; and a third that combines all facilities using the three-category system described above.

It is worth noting that none of these ratings can strictly be considered a measure of resident outcomes, although there is evidence that outcome measures are related to the ‘old’ inspection ratings (Netten et al. 2010, p. 85). Nevertheless, this is a limitation of the study.

Explanatory variables

The key explanatory variable is the type of owner of the establishment. This variable has three categories: local authority; private for-profit; private non-profit. Other explanatory variable are the number of beds in the facility; its age since first registration; whether or not the building was purpose-built as a care home; whether the establishment is classified as a ‘care home with nursing’ or a ‘care home without nursing’; and whether the primary registered client group is people suffering from dementia. The latter variable is included because it is known that homes find it more challenging to provide a good quality of life for

residents suffering a significant degree of cognitive impairment (West 2016). We also control for the size of the over-65 population in the local authority area in which the facility is located as a measure of the size of demand for residential care in the local area. The level of competition is measured using the Herfindahl index at the level of the local authority responsible for the purchase of care for the area in which the home is located. The level of deprivation in the area served by the home is measured using the Income Deprivation Affecting Older People (IDAOP) score. (Department for Communities and Local Government 2015).

Methods of analysis

As the outcome variables are ordinal, with four categories for inspections using the new system and three categories for those based on the older system, the natural method of analysis is ordinal logistic regression (Agresti 2013). The simplest form of this method is proportional odds logistic regression:

$$\text{logit}[\Pr(Y \leq j|\mathbf{x})] = \alpha_j + \boldsymbol{\beta}'\mathbf{x}, \quad j = 1, \dots, J - 1 \quad (1)$$

In this model, there are J categories in the outcome variable, and a separate intercept (α_j) for each logit. The estimated effect of explanatory variables, \mathbf{x} , given by the vector of regression parameter estimates, $\boldsymbol{\beta}$, is the same for each logit. We tested this assumption using the procedure recommended by Harrell (2001, p. 335). Where appropriate, we relaxed the assumption and obtained separate estimates of the β parameters associated with sector for each logit, known as the partial proportional odds model (Peterson and Harrell 1990). Whichever estimate is appropriate is reported in the tables of results shown

below. Estimates were obtained using the *clm* function in the *ordinal* package (Christensen 2015) in R 3.3.2 (R Core Team 2016).

Results

Descriptive statistics

Figure 1 shows how the care home industry in the UK has changed since 1970. Over 65% of the available places were provided by local authorities in 1975, but 40 years later this was down to 8%. While the proportion of places provided by non-profit providers has remained quite constant, over the same period the for-profit sector's share of the industry has increased from less than 15% to almost three-quarters of the total number of beds.

[Figure 1 about here]

Tables 1 and 2 show cross tabulations of the numbers of establishments that received each of the available inspection outcomes using the old and new systems, respectively, along with the counts that would be expected if CQC quality rating was independent of ownership type (Agresti 2013). We can see that in table 1, there are approximately 41 more non-profit owned homes that are fully compliant than would be expected, while there are almost exactly the same number fewer for-profit homes that receive this CQC rating. Similarly, we can see that there are about 37 fewer non-profit homes that have at least one area of non-compliance about a similar number more for-profit homes than would be expected.

[Tables 1 and 2 about here]

Table 2 shows a similar pattern. Among homes that achieve all ‘good’ or ‘outstanding’ CQC ratings, there are about 116 more non-profit homes than would be expected and 130 fewer for-profit homes. At the other end of the scale, among those homes that have at least one ‘inadequate’ rating, there are 64 more for-profit homes than would be expected under the independence model and 52 more non-profit homes. In both tables, local authority homes achieve a distribution of ratings that is close to what would be expected under the null model of independence. Descriptive statistics for other explanatory variables are shown in table 3.

[Table 3 about here]

Regression results

Although the contingency tables suggest that there are differences in quality among the three ownership types, this form of analysis does not control for the inclusion of other variables that might affect the relationship between ownership type and quality of care. We therefore present three sets of ordinal regression results. The first set, shown in table 4, are based on the old inspection regimes, while the second set (table 5) use the new type of quality rating as outcome variable and the third set (table 6) combines the two as described above. The parameter estimates in the table are shown on the logit scale (as in equation 1, above). Odds ratios can be obtained by exponentiating the estimates in the tables. For example, the estimate of the parameter associated with Not-for-profit in column (1) of table 4 is 0.614; $\exp(0.614) = 1.85$, which implies that the odds of all standards being met relative to any of the other ratings is 1.85 times greater for not-for-profit facilities compared to for-profit operators. Figure 2 shows the marginal effects of

sector on quality rating evaluated at the mean values of quantitative variables and the most common category of categorical variables.

Old inspection regime

Turning first to the old inspection regime results, we can see in table 4 that non-profit homes have consistently higher quality ratings than for-profit homes (which is the excluded category in all the tables), across all five of the inspection criteria. The advantage is particularly marked in the case of standards of staffing. Although the estimates for local authorities are mostly positive, the difference between their quality ratings and those of for-profit homes are not statistically significant.

[Table 4 about here]

As regards the other variables, homes that do not provide nursing care mostly have slightly better quality ratings, but the differences are not statistically significant. Quality of care tends to decline as the number of beds in a home increases, but only two of the coefficients are significant (staffing and needs). The signs on the age of the care home variable are all negative, implying that older homes tends to be rated as of lower quality, but only three are significant, with “respect” being the largest estimate. Whether or not the home was purpose built seems to have little effect on quality of care, which is somewhat surprising giving results of previous studies showing that purpose built homes tend to have higher quality (Forder and Allan 2014). Homes that provide dementia care tend to have lower quality ratings, although mostly these are not statistically significant. Overall, the most important impact on quality is whether or not the care is a “not-for-profit” organization, which is associated with highly significant, positive coefficients on each of the measures of quality.

New inspection regime

Regression results using the new inspection system's quality ratings as outcome variable are shown in table 5. Using the new inspection regime, non-profit homes again significantly out-perform their for-profit counterparts. This time, though, we can see that local authority run facilities are also likely to have a higher quality rating than those run by for-profit operators, at least on some of the quality criteria. Whereas in the previous table, the distinction between residential and nursing home quality was not significant, all five coefficients are positive and significant for residential care, implying that homes that provide nursing care are less likely to obtain good CQC inspection ratings, perhaps because it is more challenging to recruit and retain professionally qualified staff..

Once again, the probability of obtaining better CQC ratings declines as the number of beds in a home increases. For-profit homes are, on average, larger (a mean of 26.9 beds) than local authority (24.5) or non-profit (21.7) facilities. We can also see that, based on the more recent inspections, older homes also tend to have lower quality ratings from the CQC, as do homes that provide dementia care.

[Table 5 about here]

Combining quality measures

In this final set of results, we combine the two types of quality inspection systems into a single response variable, as described above. The benefit of this is the increase in sample size, although we need to be slightly cautious as the five components of the two different inspection systems are not identical. These results are shown in table 6. Once again we see that local authority and private non-profit facilities are significantly more likely to receive better quality ratings from the CQC than for-profit facilities; differences between local

authority and not-for-profit providers are not statistically significant. Providing residential as opposed to nursing care is again associated with higher quality. Smaller and newer homes are also more likely to be highly rated by the regulator. By way of illustration, the probability of a for-profit, 20-bedded home being rated “Good” or “Outstanding” for the Safety category (column 1 in table 6) is 0.85, while the corresponding probability for a 60-bedded facility is 0.75. For the same category, a five year old home has a probability of being rated “Good” or “Outstanding” of 0.88, while the corresponding probability for a 30 year old home is 0.80. Whether or not a care home is purpose built shows negative signs across all five coefficients, but only three are significant. Caring for patients with dementia is once again negative and significant in relation to lower quality of care. Homes that have a primary client code of Dementia have a probability of a “Good” or “Outstanding” rating in the Safety category 0.79 compared to 0.84 for those with other primary client codes.

[Table 6 about here]

To illustrate the scale of the effects, using the mean values of control variables, the predicted probabilities of being in each of the three rating categories based on this final set of regression parameter estimates are shown in the set of effect plots in figure 2. This graphically illustrates the lower probability of For-profit providers obtaining the best CQC ratings and their higher probability of being rated “Poor”.

[Figure 2 about here]

Discussion

We have shown that, based on the inspection ratings of the care home regulator, care homes and nursing homes that are operated by non-profit organizations and those that are

run by local authorities are, on average, of higher quality than those operated by for-profit providers. There is, however, no clear difference in quality between facilities operated by non-profit organisations or local authorities. These differences are found across all five of the components of quality rated by the CQC and using information on quality provided by the old and the new inspection regimes. This is consistent with the hypothesis that quality differences exist because quasi-market competition is attenuated by the difficulty people have in evaluating the quality of provision and/or transferring out of a facility that they find inadequate once they become resident there. The fact that these differences are relatively small suggests that the regulator is having the effect of reducing these quality differences by ensuring standards are maintained and/or by increasing the availability of information to potential service users.

Of course, it does not necessarily follow that standards of care in for-profit facilities are bad. Indeed, the majority of homes of all types are rated good or better by the CQC. Most care home places are provided by the for-profit sector, and these results do not suggest that this is the source of a quality problem. What's more, the reason for the predominance of the for-profit sector is presumably that they are able to access the capital needed to build new facilities.

We might ask whether there are any general lessons for the operation of quasi-markets. The provision of residential and nursing home care is closer to a conventional market than any of the other quasi-markets that have been developed in the UK public service sector in that there is a large amount of choice available to users, many of the service providers are in the private sector, and many users pay for their own care in full or in part. This contrasts sharply with the quasi-market that now operates in the NHS, where almost all providers

remain in the public sector and purchasing is carried out by Clinical Commissioning Groups. Choice in the NHS is mainly exercised by CCGs during the tendering process, but patients in the main still have little choice about where they receive treatment. It should follow that the benefits of efficiency, responsiveness and choice that are purported to derive from the operation of quasi-markets will be more likely to be evident in this sector than in the other public service quasi-markets in the UK. There is certainly evidence that quasi-markets promote efficiency in the sense of lower costs, which have been shown to be significantly lower in both the non-profit and for-profit sectors when compared to local authority facilities (Nyman et al. 1990; Boyne 1998; Chen 2004). And the large number of homes offering care suggests that there is plenty of choice. It is less clear that responsiveness to the needs of service users has improved, but at least quality of care, in the main, seems to be reasonable. However, it is clear that maintaining this level of quality would be unlikely in the absence of a regulator, which is necessary to protect the public because of the difficulty they would face evaluating care quality themselves. The cost of the regulator has, then, to be counted against the benefits produced by introducing the quasi-market. In addition, the large number of private providers introduces an element of risk into the system of care provision; private providers—both for-profit and non-profit—are more vulnerable to the risk of failure than their public sector counterparts. We have already seen the failure of one large-scale provider of residential care—Southern Cross—in 2011, and a number of current providers suffer from “excessive debt” overhangs, leaving them vulnerable to increases in debt servicing costs from changes in interest rates or credit ratings (LaingBuisson 2014). At the same time, there is evidence that the risk of failure in the face of competition is higher among voluntary sector providers than those in the for-profit sector (Allan and Forder 2015). However, it is the potential failure of another large

group provider that prompts most concern, and there are increasing concerns about the financial health of some of the major for-profit providers of residential and nursing home care in the UK in the face of increasing costs. This has led to the CCQ being required to also assess the financial sustainability of care organizations that local authorities would find it hard to replace, a function that presumably adds to the cost of ensuring that this quasi-market functions effectively. Regulation of providers is increasingly funded by fees charged to providers by the CQC, and indeed the UK government expects this function to become fully paid for out of provider fees in future. At the same time, the CQC's budget is expected to fall from £249m in 2015/16 to £217m in 2019/20 (Care Quality Commission 2016b). Given that, even with all the desirable characteristics of the market and the substantial sums spent on regulation, we still observe lower quality among for-profit providers of residential and nursing home care might imply that we should be very cautious about moving further in this direction in other areas of public service provision.

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579

Tables

Table 1. The number of establishments of each ownership type based on the old compliance regime (expected values in parentheses).

	At least one enforcement action	At least one area of non-compliance	Fully compliant	Totals
For-profit	15 (11.5)	473 (435.0)	6142 (6183.5)	6630
Local authority	1 (0.7)	27 (27.7)	394 (393.6)	422
Non-profit	0 (3.7)	103 (140.3)	2036 (1994.9)	2139
Totals	16	603	8572	9191

Chi-square (4 degrees of freedom): 19.2; p-value < 0.01

Table 2. The number of establishments of each ownership type based on the new compliance regime.

	At least one inadequate area	At least one area requiring improvement	All areas good or outstanding	Totals
For-profit	484 (420.1)	2509 (2442.7)	1883 (2013.2)	4876
Local authority	4 (15.4)	87 (89.7)	88 (73.9)	179
Non-profit	42 (94.5)	486 (549.6)	569 (452.9)	1097
Totals	530	3082	2540	6152

Chi-square (4 degrees of freedom): 97.4; p-value < 0.01.

590 Table 3. Descriptive statistics.

Registration code	
Care home without nursing	72.0%
Care home with nursing	28.0%
Purpose built	
Yes	25.7%
No	74.3%
Dementia care registration	
Yes	10.0%
No	90.0%

591

	Mean	Standard deviation
Beds	27.8	23.0
Age (years)	19.8	8.3
Over 65 population (millions)	0.040	0.027
Herfindahl index	0.016	0.019
IDOAP score	0.180	0.110

592

593 Table 4. Ordinal logistic regression results using old inspection ratings, standard errors in
 594 parentheses.

	Safety	Staffing	Respect	Needs	Management
	(1)	(2)	(3)	(4)	(5)
Local Authority	0.068 (0.473)	0.401 (0.427)	0.096 (0.319)	-0.23 (0.327)	-0.049 (0.277)
Non-for-Profit	0.614* (0.287)	1.05* (0.269)	0.443* (0.172)	0.533* (0.221)	0.437* (0.162)
Home without nursing	0.311 (0.238)	0.189 (0.192)	0.282 (0.156)	-0.010 (0.197)	0.191 (0.149)
Beds / 1000	-6.47 (5.15)	-10.4* (3.95)	-4.33 (3.55)	-11.0* (3.98)	-5.16 (3.32)
Age (years)	-0.023* (0.012)	-0.011 (0.010)	-0.028* (0.008)	-0.017 (0.010)	-0.018* (0.007)
Purpose Built	-0.264 (0.240)	-0.157 (0.196)	0.028 (0.164)	-0.357 (0.188)	-0.062 (0.151)
Dementia care	-0.454 (0.276)	-0.435* (0.218)	-0.150 (0.203)	-0.196 (0.239)	-0.106 (0.194)
Over 65 population (millions)	8.17 (4.44)	-0.417 (2.95)	0.398 (2.34)	5.24 (3.26)	-1.01 (2.12)
IDAOP	-0.627 (0.897)	0.184 (0.730)	-0.352 (0.579)	-0.480 (0.724)	-0.286 (0.547)
Herfindahl	0.657 (5.93)	-4.23 (4.49)	1.22 (4.04)	6.58 (5.49)	3.91 (4.08)
Enforcement action Standard not met	-8.91* (1.12)	-7.94* (0.699)	-7.32* (0.488)	-8.32* (0.709)	-7.17* (0.461)
Standard not met All standards met	-4.17* (0.508)	-3.84* (0.402)	-3.73* (0.342)	-4.21* (0.417)	-3.57* (0.323)
Observations	9191	9191	9191	9191	9191
Log likelihood	-600.3	-861.9	-1277.7	-878.7	-1404.1

595 Note: * = $p < 0.05$

Table 5. Ordinal logistic regression results using new inspection ratings, standard errors in parentheses.

	Safe (1)	Effective (2)	Caring (3)	Needs (4)	Leadership (5)
Local Authority 1	0.506*	1.75	0.655*	0.477*	0.811
	(0.173)	(1.01)	(0.257)	(0.191)	(0.510)
Local Authority 2		0.127			0.450*
		(0.170)			(0.176)
Local Authority 3		-0.121			0.246
		(1.04)			(0.744)
Not-for-Profit 1	0.446*	1.51*	0.579*	0.640*	1.43*
	(0.074)	(0.341)	(0.108)	(0.084)	(0.267)
Not-for-Profit 2		0.539*			0.660*
		(0.079)			(0.078)
Not-for-Profit 3		-0.382			0.831*
		(0.542)			(0.289)
Home without nursing	0.197*	0.204*	0.236*	0.270*	0.179*
	(0.066)	(0.067)	(0.088)	(0.070)	(0.067)
Beds / 1000	-13.82*	-11.9*	-12.7*	-12.4*	-6.93*
	(1.29)	(1.32)	(1.59)	(1.36)	(1.30)
Age (years)	-0.024*	-0.021*	-0.015*	-0.021*	-0.019*
	(0.003)	(0.003)	(0.004)	(0.004)	(0.003)
Purpose Built	0.080	0.001	0.032	-0.038	-0.016
	(0.066)	(0.068)	(0.088)	(0.071)	(0.067)
Dementia care	-0.206*	-0.238*	-0.303*	-0.220*	-0.202*
	(0.078)	(0.079)	(0.098)	(0.082)	(0.079)
Over 65 population (millions)	-0.196	-1.67	3.03*	-0.053	-1.41
	(0.978)	(0.999)	(1.38)	(1.06)	(0.982)
IDAOP1	-0.303	0.017	-0.065	-0.111	-0.121
	(0.248)	(0.259)	(0.335)	(0.270)	(0.253)
Herfindahl	-1.08	2.80	2.14	1.61	2.80*
	(1.18)	(1.42)	(1.56)	(1.43)	(1.33)
Inadequate Requires improvement	-3.31*	-3.73*	-4.71*	-4.14*	-3.15*
	(0.147)	(0.158)	(0.219)	(0.169)	(0.150)
Requires improvement Good	-0.905*	-0.944*	-1.89*	-1.12*	-0.746*
	(0.138)	(0.142)	(0.181)	(0.148)	(0.139)
Good Outstanding	6.88*	4.91*	4.21*	4.42*	4.61*
	(0.519)	(0.250)	(0.205)	(0.193)	(0.218)
Observations	6075	6073	6071	6074	6072
Log likelihood	-5117.8	-4711.5	-3115.2	-4397.1	-5099.9

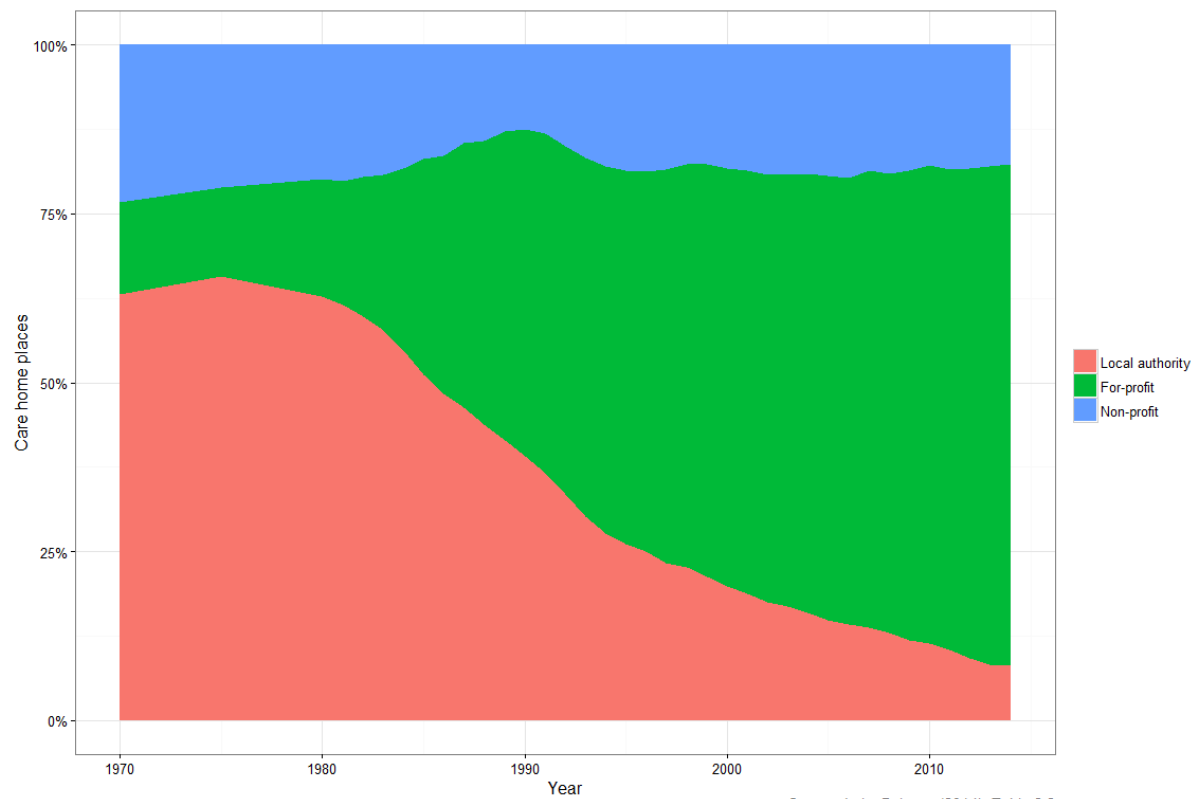
Note: * = $p < 0.05$

Table 6. Ordinal logistic regression results combining both inspection ratings, standard errors in parentheses.

	Safety/ Safe (1)	Staffing/ Effective (2)	Respect/ Caring (3)	Needs (4)	Management/ Leadership (5)
Local Authority 1	2.10* (0.721)	2.11* (1.00)	0.917 (1.01)	0.529* (0.159)	1.16* (0.505)
Local Authority 2	0.637* (0.146)	0.422* (0.141)	0.728* (0.233)		0.533* (0.139)
Not-for-Profit 1	0.929* (0.176)	1.71* (0.341)	1.33* (0.515)	0.689* (0.075)	1.62* (0.265)
Not-for-Profit 2	0.508* (0.063)	0.649* (0.068)	0.615* (0.097)		0.668* (0.066)
Home without nursing	0.278* (0.054)	0.268* (0.056)	0.325* (0.076)	0.295* (0.060)	0.256* (0.055)
Beds / 1000	-16.4* (1.08)	-15.3* (1.12)	-14.6* (1.41)	-16.0* (1.17)	-11.2* (1.10)
Age (years)	-0.026* (0.003)	-0.023* (0.003)	-0.023* (0.004)	-0.024* (0.003)	-0.022* (0.003)
Purpose Built	-0.042 (0.055)	-0.094 (0.057)	-0.045 (0.078)	-0.143* (0.061)	-0.092 (0.056)
Dementia care	-0.307* (0.065)	-0.329* (0.066)	-0.339* (0.087)	-0.317* (0.070)	-0.276* (0.066)
Over 65 population (millions)	-0.303 (0.835)	-1.80* (0.845)	1.31 (1.23)	0.141 (0.941)	-1.66* (0.815)
IDAOP1	-0.232 (0.205)	0.002 (0.215)	-0.120 (0.297)	-0.145 (0.232)	-0.170 (0.208)
Herfindahl	-4.28* (1.08)	-1.63 (1.17)	0.668 (1.87)	-0.867 (1.34)	-0.625 (1.22)
Inadequate Poor	-4.19* (0.126)	-4.70* (0.138)	-5.64* (0.201)	-5.13* (0.151)	-4.17* (0.129)
Poor Good	-2.15* (0.116)	-2.15* (0.120)	-2.79* (0.161)	-2.35* (0.129)	-1.95* (0.117)
Observations	15266	15264	15262	15265	15263
Log likelihood	-7842.7	-7040.9	-4153.6	-6176.6	-7656.7

Note: * = $p < 0.05$

602 Figures



603

604 Figure 1. Area plot showing the proportion of care homes operated by local authorities,
 605 non-profit organizations and for-profit firms, 1970-2014

606

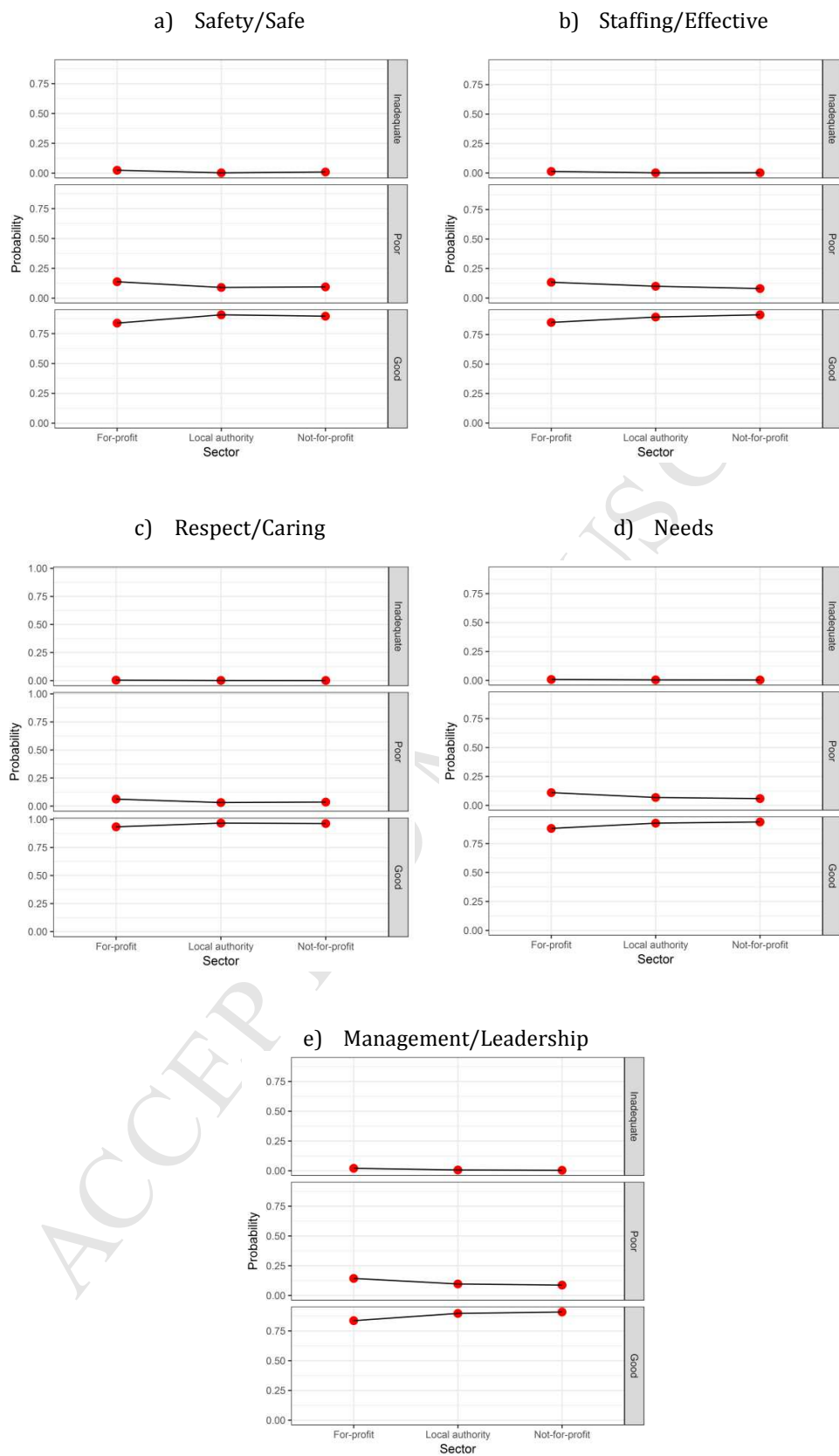


Figure 2. Effect plots

- Study of quality of care homes for adults in England.
- Care is delivered by public, not-for-profit and for-profit providers.
- Quality of care is significantly lower among for-profit providers.
- Non-profit providers have the highest quality.
- Differences in quality are relatively small, so regulation may be effective